

8 – Testing

Table of Contents

8.1 Test Strategy.....	3
 8.11 Introduction to Testing	3
Current Situation	3
Justification of functionality	4
 8.12 Dissecting Each Testing phase	4
Alpha Testing	4
Initial Objective testing (Functionality) - White Box Testing	4
Validation testing – White Box Testing	4
Navigation testing – White Box Testing	5
System Testing.....	5
Situational/integrated testing – Grey Box Testing.....	5
One to one discussions and in-depth evaluations	5
Beta testing(integration testing) – Black Box Testing	6
The exclusion of Acceptance testing.	6
8.2 Intended Test Plan.....	7
 8.21 List of objectives and the tests which will be conducted.....	7
8.31 Alpha testing	9
 8.31 Data sets	9
 8.32 Performing the tests	13
Test Plan 1, Objective No. 3, Generating new patients	13
Test Plan 2, Objective No. 1, Input/select symptoms into expert system.....	23
Test Plan 3, Objective No. 4, Generating a new admission	32
Test Plan 4, Objective No. 8, Add employees.....	33
Test Plan 5, Objective No. 2, Determine suggestion.....	45
Test Plan 6, Objective No. 6, Login users.....	46
Test Plan 7, Objective No. 7, Display menu options	52
Test Plan 8, Objective No. 5, Booking a new appointment.....	52
Test Plan 9, Objective No. 9, Archive employees	60
Test Plan 10, Objective No. 10, Sort for employees.....	65
Test Plan 11, Objective No. 11, Search for employees.....	67
Test Plan 12, Objective No. 12, View an employee's transaction log	70
Test Plan 13A, Objective No. 13A, Read transaction log from file	71
Test Plan 13B, Objective No. 13B, Read transaction log from file	73
Test Plan 14, Objective No. 14, Staff can sort for patients.....	75
Test Plan 15, Objective No. 15, Staff can sort for patients.....	77
Test Plan 16, Objective No. 16, View patient details.....	80
Test Plan 17, Objective No. 17, Add archived notes from old system.....	83
Test Plan 18, Objective No. 18, Amend bookings	92
Test Plan 19 Objective No. 19, View patient booking	98
Test Plan 20 Objective No. 20, View patient admissions.....	101
Test Plan 21 Objective No. 21, Have patients view their Admissions and Demographic information	104
Test Plan 22 Objective No. 22, Amend demographic information	108
Test Plan 23 Objective No. 23, Validate information.....	110
Test Plan 24 Objective No. 24, View bookings in entirety	111
Test Plan 25 Objective No. 25, Update bookings	113
Test Plan 26A Objective No. 26A, Sort documents.....	115
Test Plan 26B Objective No. 26B, Search documents	118
Test Plan 27 Objective No. 27, Print documents	121
Test Plan 28 Objective No. 28, Search for patients.....	121
Test Plan 29 Objective No. 29, Consultant can view patient files.....	123

Test Plan 30 Objective No. 30, View patient Demographic information.....	126
Test Plan 31 Objective No. 31, Sort admission	128
Test Plan 32 Objective No. 32, Edit Prescriptions.....	128
Test Plan 33 Objective No. 33, Add Admission information (Consultant).....	128
Test Plan 34 Objective No. 34, Edit Admission information (Patient).....	136
Test Plan 35 Objective No. 35, Add notes	143
Test Plan 36 Objective No. 36, Encrypting data before being written to file	150
Test Plan 37 Objective No. 37, Decrypting that has been read from file	151
Test Plan 38 Objective No. 38, Using the Jargon library	152
Test Plan 39 Objective No. 39, Adding to the Jargon library.....	154
Test Plan 40 Objective No. 40, Search through Bookings.....	158
Test Plan 41 Objective No. 41 Search through demographic information.....	159
Test Plan 42 Objective No. 42, Add/Edit employee demographic information.....	159
Test Plan 43 Objective No. 43, Logout Users.....	161
Test Plan 44 Objective No. 44, Remember Me	165
Test Plan 45 Objective No. 45, Cancel bookings.....	165
Test Plan 46 Objective No. 46, Determining a consultant for an admission	168
Test Plan 47 Objective No. 47, Read Patient information	172
Test Plan 48 Objective No. 48, Read Staff information.....	174
Test Plan 49 Objective No. 49, Read consultant Information	176
Test Plan 50 Objective No. 50 , Read management information.....	178
Test Plan 51 Objective No. 51, Searching definitions.....	178
Test Plan 52 Objective No. 52, Sorting definitions.....	183
Test Plan 53 Objective No. 53, Primary key generation	185
8.32 Situational/integrated Testing	186
Justification for Omission	186
8.33 One to one discussion and evaluations	186
Pre-test discussion and overview of users.....	186
Results	187
8.34 Beta Testing	188
Beta test introduction	188
Beta test results	191
Section 1 the patient	191
Section 2 the consultant	193
Section 3 The Staff.....	195
Section 4 The Management	196
Section 5 Miscellaneous.....	197
8.4 Test Results Summary	200
8.5 Testing Conclusion	202

8.1 Test Strategy

8.1.1 Introduction to Testing

As of the 17th of February 2020 I strongly believe that the current system is in a strong position to undergo formal testing and prepare the software for the final stages of development. As the program is to be deemed as "life critical" once in operation, **it's imperative that thorough testing occurs** on the system. Many people at Euxton hospital rely on its booking systems and distribution of prescriptions to receive the treatment they need; it is imperative that we can confidently provide the same services and not cause disruption to any current processes in place. Despite this I should also **aim not to diminish the work done in development testing**, which has been occurring since the start of the prototype where a good portion of the system has already been perfected and documented there, by focusing on minor tests already carried out in the document this could easily be a possibility. However here I get the chance to **push the system to its physical breaking point and not just test that isolated instances of functionality** that seem to be working, I intend to achieve this goal by conducting this process in six sections:

For the first three sections I will regard them as alpha testing

- **Objective testing (Functionality)**
- **Validation testing**
- **Navigation testing**

After this point the system will retrospectively be viewed as a whole package

- **Situational/integrated testing**
- **One to one discussions and in depth evaluation**
- **Final Beta testing**

For the first three sections the testing will be done coherently for each section, as a result of this when functionality for an objective is finished we will move directly to validation testing for the feature. Because of this when we finish an objective, all isolated instances of testing will have occurred in the same section and will be all in one location.

Throughout these sections a wide variety of testing techniques will occur to expose any errors and inconsistencies on the system, by **undergoing testing through a wide range of users, approaches I believe the system will be at the point it can be evaluated**. However, before I discuss the intricacies of each of the methods I need to discuss the current state of the actual system and how it may impact any future analysis. **However as the main aim is to perfect functionality the majority of the document should consist on perfecting operations and being able to perform core functionality flawlessly**. The non-functionality testing will be done at a later point if time allows for it.

Current Situation

As of now I believe the system to be in a strong functional state, as a quantitative value I estimate 95% from full objective functionality. There are a few parts that currently need to be finished however, for instance the visual aspect of the action log is yet to be put in place, however I can see that these are finished before they are initially addressed in the document so as of now they pose no immediate threat to the progress of the testing. To add to this the system currently lacks most validation (a process I designed to be easily implemented), while most scenarios now wouldn't cause much disruption, as highlighted by others, file reading could be exploited causing future implications; because of this the section validation testing has been specially positioned before beta testing to address this to prevent users causing issues in the backend of the system on accident. Finally some small quality of life features like encryption and printing documents(likely to see a possible omission) also need implementation. However all of these can be done as an ongoing task hence justifying leaving them to the end of development to focus on tasks which couldn't be left last minute.

Justification of functionality

As functionality is a relative term what I believe to be operational may not be the case in the eyes of others, so to ensure that for each objective laid out during the investigation is complete as of PPROD's submission I will take what was said for each objective's requirements at face value as the sole condition for determining whether it can be achieved or not. If it can pass the initial test no further action needs pursuing for the features core functionality, otherwise any outstanding issues are addressed and then re-evaluated until performing in the state as needed. Once any core functionality problems are resolved we can look towards validating and then navigation. Looking beyond individual objectives I believe that the system can only truly be justified as working when any number of objectives can be performed in any given order respectfully (i.e. a user shouldn't be able to alter account information before logging in), however until then I believe the program to be in state of development regardless whether how close or far it is from that point, and if I that point can't be reached in the given time frame, then it can be discussed in the evaluation why factors prevented it from reaching said point.

8.12 Dissecting Each Testing phase

Alpha Testing

Initial Objective testing (Functionality) - White Box Testing

While it doesn't need much justification to include, objective testing will play a pivotal role with identifying errors in the system. While coming from development testing and that everything appeared to be fully working, after some key changes have been introduced since then I would say that it would be time to go through and check everything still works as intended.

For the first testing phase of the system the aim is simple: **achieve the purpose of the objective in isolation**, for some parts this could be just described as "observe, record and continue" due to extensive testing done in prior documentation as a result little action may be needed, nevertheless everything must be addressed and included to provide a coherent testing document. **The data here will be standardised and non-erroneous**, simply because we require proof of basic functionality in modular form, any need for validation will occur in validation testing when appropriate. In some cases **functions may need to have unnecessary outputs displayed to the user** to indicate operations are occurring as intended, however once formally recorded that they have occurred these can be commented out for further possible proof of functionality, other proof of operations should be clearly visible (i.e. logging in should return the user to their respected homepage) however this will be explored further in navigation testing. At this stage, as the system can sometimes be somewhat volatile and throw an error for many of reasons, it is in the project's best interests that **all user interactions and evaluations are left to my part**, external users can see the system in beta testing. Finally as certain parts of the system are yet to fully be commented, **this stage should provide a great instance to fill in any missing comments**. Once all said above has been met we can move onto validation testing for that objective.

Validation testing – White Box Testing

While other students may wish to exclude validation as it isn't entirely necessary, for my system I believe now on reflection it should be one of its largest aspects. At Euxton the system would never be able to introduce incorrect bookings onto the system so I believe that if the system was to follow through on its functionality promise it needs to make sure that the data from user input is always correct regardless of where they enter it.

Once we have recorded proof that the main objective can operate in an individual case we can move onto destructive testing. **Here the focus is to identify locate and resolve any potential errors that could be made on the system by entering erroneous data**. This will heavily focus on getting the validation of text fields and areas up to a usable standard. However this won't only be the main focus. Once we can see that the system is usable we will also need to rectify any errors found during development, this will draw upon a list of bugs that had occurred during development that were recorded but were too minor to fix until now. The data that will be needed will need test a wide range of validation types and will consist of **invalid ranges ,null values, incorrect data lengths, invalid data types, incorrect formats and extreme values**. As this section of testing is to prepare the system for the eventual use of the beta testing I can only see it as necessary if it is done by myself. Each field will be assessed on the validation types assigned to it during the design phase of the project, **the test will be deemed as a success if any of the above erroneous data can be entered and accordingly produce the correct output to the user**.

Navigation testing – White Box Testing

While navigation could have been left out, I chose to personally make sure that all graphical aspects of the system are fully working. A key issue that came from the work at Euxton was that while the system performed as expected it was apparent it wasn't as effective and fast as it could have been. While I don't intend to incorporate any performance testing, for reasons I'll get into later. Being able to successfully move through the system in a nonlinear manner is really important, especially when we are dealing with a stack management system for the panels.

While in essence not the most interesting test, making sure that the user is constantly being moved to the correct panel/frame **will be an important test to ensure the objective is working as intended**. This can be realised due to the fact possible errors could be thrown during an objectives operation that may not be caught, this allows us to identify it has occurred by seeing that a component may have failed to be rendered. To ensure that navigation works for the objective as intended the JPanels path order will be described before being tested if the system correctly follows the path the objective is a success. Also any graphical discrepancies will also be documented and discussed here also.

System Testing

Situational/integrated testing – Grey Box Testing

Here the utilisation of this test is most likely to be one that could see possible omission later down the point. If the system appears that it works concurrently through evidence provided in the alpha testing we may even see the possibility of skipping the test if I feel that it is unnecessary. This could also be used in beta testing also as a main requirement. However we will see how well the system runs before we start to consider this.

With situational testing the aim is to expand the work done in objective testing by **getting the system into a state in which various modules can work together with each other**. From a case by case point of view the program will get all of the features working, however getting the system to use all of the features in conjunction with each other is a different task. **By the end we will need the system to effortlessly integrate objectives together**. This will be achieved by using brute force attempts and seeing if any issues occur this will be done during alpha as well but won't be documented as we will use this to get an early impression of what and does not work, resolving the issues when they occur. By writing down all the possible actions that could occur together with each other we can see what needs fixing, if a sets of objectives can work it will be recorded and the process will repeat. Overall as seen in development testing, **the system works fine in isolation but it initially seems that a handful of instances are not updated once being written to file**, regardless of the issue it will be explored later on.

Non-Functionality Testing

One to one discussions and in-depth evaluations

This test needs to be in the system as part of the qualitative feedback of the system, this will provide me enough ideas to overhaul small sections of the objectives. As the system at Euxton will be built around the "user experience" it's vital that verbal ideas are put forward. I will leave the numerical feedback to the beta testers.

Before I commence with the beta testing of the system, I will have ample time to show select users the system just after integrated testing to get a more personal view of the system, this will slightly differ in beta testing in which the main focus is a qualitative and more individual response. This will be conducted by people either close to the system and or me. While they will perform the same tasks set out from the beta testing (for the sake of continuity) **the main outcome is to get their opinions**, as I fear the beta testers won't be so verbal in their discussion of the system afterwards. At this point I should be open to more controversial views of the system to help prepare the system even more for the tests that will later follow. While this section won't be as long in it running the outcome should regardless be as of much help as any other test conducted. Results won't be accepted or declined like previous tests during development, however **key suggestions will be noted for further analyse and evaluation**.

Beta testing(integration testing) – Black Box Testing

Regardless whether the situational testing is performed or any other test for that matter is included or not. A key part for the testing of the system will be beta. This is down to how other users will little knowledge of the system perceive the system. It would be pointless for someone who has spent countless hours developing the system use it, if a patient or an employee found it difficult to navigate and use.

Now the system will be ready to be used external testers, the point of this section is to **highlight any minor short comings and highlight any fixable issues that haven't already been rectified**. This will be achieved in a similar manner which was used in PPROD in which users will have a chance to use the system and point out any non-fundamental issues with the program by filling out the same document as before. At this point **we have the chance to compare the results and see if the overall opinions of the system has changed** since the initial evaluation of the system. At this stage users will be given a sheet instructing them to perform basic tasks such as creating an account, **with no restrictions on what they can enter**. As a result this phase also allows validation to be examined to see how the system responds to values entered by normal users. At the end of the session the original questionnaire will be supplied to the tester for quantifiable feedback, any comments will be made to me. Unlike other phases this stage doesn't utilise a criteria for passing the section, this is due to the fact the views are supplied by the others at this point are unable to overhaul the program at this current point, **regardless the feedback is rather an early impression of how others feel about the system which will be important when the system needs to be evaluated**. However due to the late stage of testing this will occur at there will be limited time to actually carry out improvements, and so only critical adjustments will be made to the system if time allows for them.

The exclusion of Acceptance testing.

Finally I would like to discuss the rejection for the acceptance and performance test for the system. As the test is done in the later stages of the systems testing to find how the system copes with performing the tasks under time constraints. I feel the system would not benefit from having more tests and fixes introduced to see if the system manages to perform a task in a certain time after performing an extensive set of checks to ensure it works just to go back and alter it, potentially exposing new bugs to see a slight improvement in performance. While I did set out in the investigation to create these time bounds, looking back at them now, I almost see them as naïve due to my experience working on the system I can say for certain some features are way more forgiving than others and some way too harsh to perform the task. While these tests would allow closure on these expectations I feel that they would not be ideal targets to meet due to the aforementioned reasons. Because of this I will not perform the test on the system, despite this I will reflect the impact it will have on the system in the evaluation.

8.2 Intended Test Plan

8.2.1 List of objectives and the tests which will be conducted

As I believe that the project is a large task to undertake I believe it would be unwise to test every aspect of the system under all 6 phases, for instance beta testers won't want to see every aspect but rather the interesting instances which could benefit from a range of black box and white box testing, because of this I have deconstructed the test phases along with the objectives into its constituent parts. From this we will be able to identify which objective will go through which series of tests. This table will also allow myself to cross reference the objective with the test, it should also help reduce the need for repeating objective descriptions as the reader will be able to refer themselves to this point in the document. Finally this should also help with preventing unnecessary repeating of tests, as only 1 set of tests should need to occur for a method which is used commonly throughout the system. By completing the objective testing as one large part we should stop the scattering of testing a single instance of the system throughout the document, however once all the respective phase 1, 2 and 3 tests are complete we will move the tests to view the system as a whole.

This will consist on trying to view the system as a single entity and will look past viewing the system as objectives, because of this we won't explore isolated instances of features, but instead see them as a collective. Despite this if an issue does arise it will be handy that the testID is noted so we can see when the issue occurred.

However as changes where bound to occur in the system I have had to exclude a handful of features since the initial writing of the investigation document. Regardless for contingency sake I have kept them in. However to make sure what was actually omitted and when I have marked down when the feature was missed out from the system. For the features that were omitted during post prototype reflection of design (PPROD) the reason has already been supplied in that document. For objectives omitted during development I will briefly explain my reasoning here but will delve into that subject matter in my evaluation

Obj #	Test #	Objective Title	Phase 1 ID	Phase 2 ID	Phase 3 ID	Phase 4 ID	Phase 5 ID	Phase 6 ID
3.	1	Generating new patients	1. 1	1. 2	1. 3	1. 4	1. 5	1. 6
1.	2	Input/select symptoms into expert system	2. 1	2. 2	2. 3	2. 4	2. 5	2. 6
4.	3	Generating a new admission	3. 1	3. 2	3. 3	3. 4	3. 5	3. 6
8.	4	Add employees	4. 1	4. 2	4. 3	4. 4	4. 5	4. 6
2.	5	Determine suggestion <i>Removed During Soft Dev</i>	5. 1	5. 2	5. 3	5. 4	5. 5	5. 6
6.	6	Login users	6. 1	6. 2	6. 3	6. 4	6. 5	6. 6
7.	7	Display menu options	7. 1	7. 2	7. 3	7. 4	7. 5	7. 6
5.	8	Booking a new appointment	8. 1	8. 2	8. 3	8. 4	8. 5	8. 6
9.	9	Archive employees	9. 1	9. 2	9. 3	9. 4	9. 5	9. 6
10.	10	Sort for employees	10. 1	10. 2	10. 3	10. 4	10. 5	10. 6
11.	11	Search for employees	11. 1	11. 2	11. 3	11. 4	11. 5	11. 6
12.	12	View an employee's transaction log	12. 1	12. 2	12. 3	12. 4	12. 5	12. 6
13.	13A	Read transaction log from file	13. A 1	13. A 2	13. A 3	13. A 4	13. A 5	13. A 6
13.	13B	Write transaction log to file	13. B 1	13. B 2	13. B 3	13. B 4	13. B 5	13. B 6
14.	14	Staff can sort for patients	14. 1	14. 2	14. 3	14. 4	14. 5	14. 6
15.	15	Staff can search for a patient	15.	15. 2	15. 3	15. 4	15. 5	15. 6
16.	16	View patient details	16. 1	16. 2	16. 3	16. 4	16. 5	16. 6
17.	17	Add archived notes from old system	17. 1	17. 2	17. 3	17. 4	17. 5	17. 6
18.	18	Amend bookings	18. 1	18. 2	18. 3	18. 4	18. 5	18. 6
19.	19	View patient bookings	19. 1	19. 2	19. 3	19. 4	19. 5	19. 6
20.	20	View patient admissions	20. 1	20. 2	20. 3	20. 4	20. 5	20. 6

21.	21	Have patients view their Admissions and Demographic information	21. 1	21. 2	21. 3	21. 4	21. 5	21. 6
22.	22	Amend demographic information	22. 1	22. 2	22. 3	22. 4	22. 5	22. 6
23.	23	Validate information	23. 1	23. 2	23. 3	23. 4	23. 5	23. 6
24.	24	View bookings in entirety	24. 1	24. 2	24. 3	24. 4	24. 5	24. 6
25.	25	Update bookings	25. 1	25. 2	25. 3	25. 4	25. 5	25. 6
26.	26A	Sort documents	26. A 1	26. A 2	26. A 3	26. A 4	26. A 5	26. A 6
26.	26B	Search documents	26. B 1	26. B 2	26. B 3	26. B 4	26. B 5	26. B 6
27.	27	Print documents <i>Removed During Soft Dev</i>	27. 1	27. 2	27. 3	27. 4	27. 5	27. 6
28.	28	Search for patients	28. 1	28. 2	28. 3	28. 4	28. 5	28. 6
29.	29	Consultant can view patient files	29. 1	29. 2	29. 3	29. 4	29. 5	29. 6
30.	30	View patient Demographic information	30. 1	30. 2	30. 3	30. 4	30. 5	30. 6
31.	31	Sort admission <i>Removed During PPROD</i>	31. 1	31. 2	31. 3	31. 4	31. 5	31. 6
32.	32	Edit Prescriptions <i>Removed During PPROD</i>	32. 1	32. 2	32. 3	32. 4	32. 5	32. 6
33.	33	Add Admission information	33. 1	33. 2	33. 3	33. 4	33. 5	33. 6
34.	34	Edit Admission information	34. 1	34. 2	34. 3	34. 4	34. 5	34. 6
35.	35	Add notes	35. 1	35. 2	35. 3	35. 4	35. 5	35. 6
36.	36	Encrypting data before being written to file	36. 1	36. 2	36. 3	36. 4	36. 5	36. 6
37.	37	Decrypting that has been read from file	37. 1	37. 2	37. 3	37. 4	37. 5	37. 6
38.	38	Using the Jargon library	38. 1	38. 2	38. 3	38. 4	38. 5	38. 6
39.	39	Adding to the Jargon library	39. 1	39. 2	39. 3	39. 4	39. 5	39. 6
40.	40	Search through Bookings	40. 1	40. 2	40. 3	40. 4	40. 5	40. 6
41.	41	Search through demographic information <i>Removed During PPROD</i>	41. 1	41. 2	41. 3	41. 4	41. 5	41. 6
42.	42	Add/Edit employee demographic information	42. 1	42. 2	42. 3	42. 4	42. 5	42. 6
43.	43	Logout Users	43. 1	43. 2	43. 3	43. 4	43. 5	43. 6
44.	44	Remember Me <i>Removed During Soft Dev</i>	44. 1	44. 2	44. 3	44. 4	44. 5	44. 6
45.	45	Cancel bookings	45. 1	45. 2	45. 3	45. 4	45. 5	45. 6
46.	46	Determining a consultant for an admission	46. 1	46. 2	46. 3	46. 4	46. 5	46. 6
47.	47	Read Patient information	47. 1	47. 2	47. 3	47. 4	47. 5	47. 6
48.	48	Read Staff information	48. 1	48. 2	48. 3	48. 4	48. 5	48. 6
49.	49	Read consultant Information	49. 1	49. 2	49. 3	49. 4	49. 5	49. 6
50.	50	Read management information <i>Removed During Soft Dev</i>	50. 1	50. 2	50. 3	50. 4	50. 5	50. 6
51.	51	Searching definition	51. 1	51. 2	51. 3	51. 4	51. 5	51. 6
52.	52	Sorting definitions	52. 1	52. 2	52. 3	52. 4	52. 5	52. 6
53.	53	Primary key generation	53. 1	53. 2	53. 3	53. 4	53. 5	53. 6

8.31 Alpha testing

8.31 Data sets

To standardise what values are tested on the system, data sets will be constructed to help reduce the creation of inconsistent data, the table below will show all the data that will be used in the system so it too can be referenced during the testing of the system. Each entity will consist of one or more possible instances the first will hold normalised data, others will differ but usually will hold updated versions. Once we have proof of initial functionality we will proceed to use the later sets and respond as needed for possible updates and changes that may need to occur to the entity. Also as all the Text fields will utilise the same validation method for sake of the document size in an entity one erroneous data set may incorporate one type of error but in reality will have a wide range of values. To help aid the reader on what values are entered by the user and which aren't I have highlighted all user entered fields in white and system generated values in grey. However as some of the generated values depend on user input I will also attempt to use certain system generated values.

One last thing to mention is that not all tests will utilise the data sets, for instance and search test will also require a search value, any sort of additional data requirements will be specified along with the actual value that will be utilised and will be documented in the test plans.

User entity

User	User 1 (Typical) U1	User 3 (Typical) (Existing) U2
First Name	James	Alex
Surname	Nurdin	Nurdin
Gender	Male	Male
Dob	28/05/2002	29/05/200 2
House Number	55	26
House Street	Town Road	Spelding Drive
Town	Croston	Wigan
Postcode	PR26 9RA	WN6 8LW
Contact Number	0748472799 2	074847279 92
County	Lancashire	Greater Manchester
Nationality	English	English
Smoker	0	0
Drinker	12	25
Disability	False	False
Carer	False	False
Translator	False	False
Password	4mtOY08	Sdfwer
Days since last updated	52	52
Blood type	A+	A+
Religion	Christian	Christian
Allergies	None	None
Sex	Male	Other

Patient

Patient	Patient 1 (Typical) (New) P1	Patient 3 (Typical) (Existing) P3
PatientID	PNUR000000 4	PABB000000 1
Linked StaffID	SNUR000000 2	SNUR000000 2
Number Of admissions	0	38 <i><Stress></i>
Number of notifications	0	0
Notifications	Null	Null
List of admissions	Null	38 instances
Most recent booking	null	Instance of BABB000000 7

Admission

Admission	Admission 1 (Typical) (New) A1	Admission 3 (Typical) (Existing) A3
AdmissionID	(Varies on admission)	AABB0000001
Ward	PENDING	Physiotherapy
ConsultantID	PENDING	CNURO000000 1
Active	True	True
Requested	false	false
Number of documents	0	8
List of symptoms	Fever Cough Shortness of breath "null"	Fever Cough Shortness of breath "null"
List of areas affected	Chest Head	Chest Head
Type of pain	Acute Pains	Acute Pains
Current diagnosis	PENDING	Flu
Date admission created	(Varies on admission)	23/01/2020
List of documents	Null	8 instances of document

Booking

Booking	Booking 1 (Typical) (New) B1	Booking 3 (Typical) (Existing) B3
BookingID	(Varies on booking)	(Varies on booking)
Date of next appointment	20 March 2020	20 May 2020
Room	E001	E002
Time of next appointment	12:00	14:30
Booking PatientID	(Varies on patient)	(Varies on patient)
Automatic booking	False	True
Booking AdmissionID	(Varies on admission)	(Varies on admission)
New booking	True	False

Document

	Document 1 (Legacy) (Typical) D1
DocumentID	(Varies on admission)
Doctype	(LEGACY test doc)
Text	This text is to help show functionality and demonstrate test
File path	(varies on image but parent folder is: C:\Users\james\Documents\ Collage\Computer Science \C3\Coursework\Written work\ Project\LegacyPatientDocs)
Legacy document	True
Number of pages	1
Date document was created	(Varies on day)

Employee

Employee	Employee 1 (Normal) E1	Employee 2 (Normal) E2
EmployeeID	(Varies on employee)	Not validated
Wage	12.00	
Hours per week	48(Max)	Not validated
Archived	false	Not validated

Consultant

	Consultant 1 (Typical) AC1
ConsultantID	CNUR0000001
Number of patients	1
Ward located in	Physiotherapy
Expertise	Cardiorespiratory Gerontology
Consultant patient list	Null
Patient admission list	PABB0000001
Date of next appointment	(Varies on booking)
List of bookings	(Varies on booking)
Today's appointments	(Varies on booking)

Staff

	Staff 1 (Typical) SC1
StaffID	SNUR0000001
PatientIDs	
Number of patients	

Action

Action	Action 1 (Typical) AC1
Date action performed	(Varies on date action is carried out)
Current action	(Document created notes)
New data	(Varies on date action is carried out)
Old data	N/A
Affected patient	PABB0000001
Affected admission	ABB0000001/uploads/9/6/0/2/96027112/aqa_mathematics_statistics_2a_question_paper_jan_2006.pdf

8.32 Performing the tests

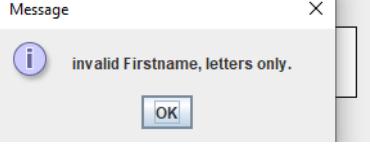
Test Plan 1, Objective No. 3, Generating new patients

Test ID	Test Type	Purpose/Expected Output	Pass?
1.1	Functionality	<p>Once all the text areas and components have been entered by the user the system should then validate the data entered by the user. As the data set is standard a new user account should be generated by the system and will return the user to their homepage, we should see a unique ID generated along with our entered details inside a new file called by the same value as the ID. On the backend the file should contain all their newly entered information along with a 0 to indicate no new notifications are present on the system.</p> <p>Finally the system should also add the patient to the staff account with the least patients on the system, by adding their name as a foreign key and increment their number of patients.</p>	Pass
<p>As this objective draws upon many fields for it to operate, it would be unwise and a waste of time to brute force each validation test on every field. For instance we have at least 18 different input components, if we wanted to use the standardised validations of null, type and extreme it would result in at least 54 tests plus any unique situations. To reduce the workload the validation testing for this section has been grouped into segments based on the JComponent used. This can occur due to the uniform method of validating the system utilises, as each component type uses the same validation we would be able to presume that entering the same input data in both fields would result in the same popup occurring.</p>			
1.211	Validation (Text Field) <Null>	Here we are trying to find faults in the newly introduced validation of JTextfields, on the attempt the system should see that the text field has no valid data present in the field due to it containing the user prompt. The user should then attempt to create an account. For this field the system should check that following occurs: The string pulled from the field is not Null, the text does not contain the prompt.	Rectified
1.212	Validation (Text Field) <Type>	When the user enters the data in the text field they will enter the string “”. What should happen is that a popup should appear informing the user that the field is does not only consist of letters. It should also prevent the creation of the patient account on the system.	
1.213	Validation (Text Field) <Extreme>	Here we are going to test how long we can make the text field contain text before an error is created in the form of a popup. Once the user enters a text that exceeds the length limit a popup should appear informing them that the field in particular must be below a threshold. After this the process of creating a patient should terminate after this.	
1.221	Validation (Date Picker) <Null>	Here when the user attempts to create an account they will leave this component without a date selected. When the system tries to parse the date it should catch an exception that no data has been entered and will display a popup to the user informing them that the input is missing. After this the system should terminate before the account is made.	Rectified
1.222	Validation (Date Picker) <Range>	When the user tries to select a date they should be bounded by todays date and any date in the last one hundred and twenty years. When any date outside the period has been previewed they will be unable to select the dates other than the bounded ones as the others will be disabled. Forcing them to only select a date in the given time period.	

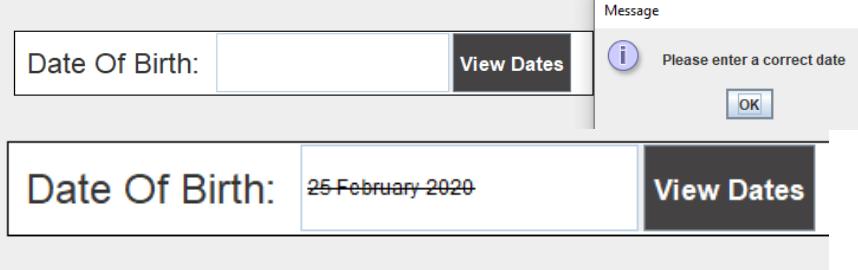
1.23	Validation (Combo Box) <Null>	When the user goes to create an account the drop down box should be left at the initial option choice asking them to select an item below. When the account is attempting to be created the retrieved data should be passed through the validation and a false value should return. After this the process should halt and a popup should be created informing the user that the option selected was invalid.	
1.24	Validation (Slider) <Range>	When the user starts the system the slider should have its value set to zero, when the user uses the slider to change the value the slider should update the accompanying label to indicate its new value, after this when the user eventually decides to create the account the system should use the current value and assign the attribute as the integer.	
1.251	Validation (Text Area) <Null>	When the system is loaded and the user reaches the panel they will enter all the required information onto the system, after the feature is complete they will then leave out the text field and attempt to create an account. The validation should recognise that the area is empty and return false in the validation after this a popup should appear along with the termination of the patient creation.	
1.252	Validation (Text Area) <Type>	When the user enters the system similar to test 1.251 they will attempt to enter an invalid character into the text area the character in question will be the symbol “,” which is the split character used in the file reading, the system should recognise that the character is not allowed and return false in the validation method terminating the method before an account can be made, also a popup should be generated informing the user of the invalid character being used.	
1.253	Validation (Text Area) <Extreme>	Lastly for the objective the last validation test needed will be for the text area. When the user enters the panels information for the text area they should enter at least 101 character into the field, when they proceed to generate the account the system should see that the strings limit has been exceeded and then produce a popup informing them that the length is too long.	
1.3	Navigation	When the process of the patient creation has finished the system should return the user to their homepage (panel: patientHomepagePanel) after this some of their information should be viewable in the contact bar on the left. The panel order of the feature should be as follows: loginPanel – createPatientPanel - patientHomepagePanel	

Test ID	1.1
Data Set	U1(Typical)
Evidence	<p>Go Back Gender: Male</p> <p>Firstname: James Sex: Male</p> <p>Surname: Nurdin Religion: Christian</p> <p>Date Of Birth: 28 May 2002 View Dates Average units a week: 12 0 15 30 Nationality: English</p> <p>Building number/name: 55 Average cigarettes a day: 0 0 5 10 15 20 25</p> <p>Street: Town Road Allergies: None</p> <p>Town/City: Croston County: Lancashire</p> <p>Postcode: P R 2 6 9 R A</p> <p>Blood type: A+ Contact Information: 0 7 4 8 4 7 2 7 9 9 2 Create Account</p> <p>Disabilities(if none leave blank): Need a carer: Need a Translator:</p> 
	<p> PNUR0000006_file.txt - Notepad</p> <p>File Edit Format View Help</p> <p>PNUR0000006,1s99Wow,Nurdin,James,55,Town Road,Crosto</p> <p> SHAR0000001_file.txt - Notepad</p> <p>File Edit Format View Help</p> <p>SHAR0000001,EHAR0000001,?M5N?n2</p> <p>2,PABB0000029,PNUR0000006,</p>
Actual Commentary	<p>As you can see when the system receives normalised data, it responds as expected and displays to the user the desire/ intended outputs. First the instance of patient is initialised and then all the attributes are validated. After this the correct attributes are generated by the user input, in particular the staffID and patientID</p> <p>In which the user is returned to the home screen and with their details that they entered are added to a new file in the patient's personal file called by their Patient ID followed by the "filename.txt".</p> <p>To add to this the last feature to be expected was that the new patient also has their id added as a foreign key to their new staff entities file indicating to the system that staff is responsible for the patient's details. And as you can see this has been achieved with it being clear that the patient is on the staff account's file.</p> <p>Because of this we can say the test was a success.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	1.211
Data Set	<Null>
Evidence	 <pre>option in thread "AWT-EventQueue-0" java.lang.NullPointerException at User.searchPrimaryKeysLinear(User.java:621) at StaffList.returnStaffIDForPatientCreation(StaffList.java:234) at Gui.createPatient(Gui.java:1142) at Gui.actionPerformed(Gui.java:9867) ...</pre>
Actual Commentary	<p>As you can see, in the attempt the text field had no values present, as seen by the prompt text that automatically is entered, we can see that the pop up had successfully occurred and that the user is still kept in the new patient demographic page of the system. Because of this we can declare that the new validation correctly works with any erroneous data supplied to it.</p> <p>However to indicate it should work with standard data now I attempted entering data set U1 and was now met with an error being thrown to the console indicating that a null pointer had occurred in the retrieve StaffID method of the system.</p> <p>Because of this we will need to investigate.</p>
Further actions /Enquiry	<p>When exploring the issue, it became clear that the method which determined the staffID of the patient was being called too early due to the fact a few attributes had changed location in the java file it meant that a null value of PatientID was being passed into the method. The fix should be very basic and just a matter of moving the method to a position where the PatientID has been declared. With the amendments made the test was a success.</p> <pre>StaffList staffList = new StaffList(); newPatient.linkedStaffID=staffList.returnStaffIDForPatientCreation(newPatient.patientID); newPatient.numberOfAdmissions = 0;//retireives attribute from component //ID newPatient.patientID = newPatient.createUniqueID(newPatient.surName,"P");//creates a unique id loginChoice = 0; PatientList pl = new PatientList(); newPatient = pl.createNewPatient(newPatient); setUpPatientObj(newPatient.patientID);//initialises patient object usernameTF.setText("Username:");//built in protection on the system as soon as the user tries }</pre>
Rectified	

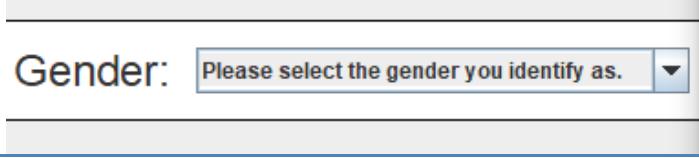
Test ID	1.212
Data Set	<Type> “,”
Evidence	
Actual Commentary	<p>When I entered the character “,” the system recognised the character was not a letter by returning false from the method .isLetter(). As a result a popup was generated informing me that the field was invalid and that only letters where acceptable. As the field returned false in the validation the process was returned early to prevent any false data being passed through. Because of this we can say this test has been passed.</p>
Further actions /Enquiry	<p>As no errors have occurred can proceed to the next test.</p>
Rectified	N/A

Test ID	1.213
Data Set	<Extreme> “AAAAAAAAAAAAAAAAAAAAAAA”
Evidence	
Actual Commentary	When I started the system and proceeded to make the account, in the first name text field I used the value copied above and pasted it into the field. After this I pressed the button create account. Before the instance could have been created and written to file a validation method was ran on the text field checking that the number of characters did not exceed the length did not exceed the limit. When false was returned from the check a popup appeared and claimed that an invalid first name has been entered. Because of this we can say this test has been passed.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

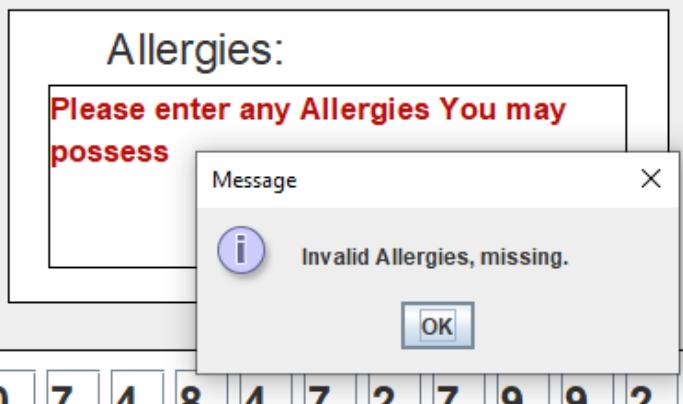
Test ID	1.221
Data Set	<Null>
Evidence	
Actual Commentary	When the system started I went to the account creation panel and went on to fill in the fields of information, when it came to the date of birth box, I left the field empty with no text whatsoever in it. When I pressed the create account button the system checked to see if the date could have been parsed and returned false to the validation field when it was unable to, after this a popup appeared informing the user that the date was incorrect. However after this the user was then moved to the patient homepage and was assigned a password, indicating that the process hadn't terminated as expected. When investigating the date of birth, the only erroneous field it showed that today's date had been used. Because of this we will need to investigate.
Further actions /Enquiry	The issue was that The validation was not in the method (due to the fact that the date needed to be parsed), so validation occurred outside, if it was null/invalid the variable validated set false along with a popup being generated, however if every other field was true it would update to true after the main object is validated the system would believe that the data is valid and create the account. All I just needed to do was to terminate process early, instead of setting the value as false I just returned the method after the popup had been created.

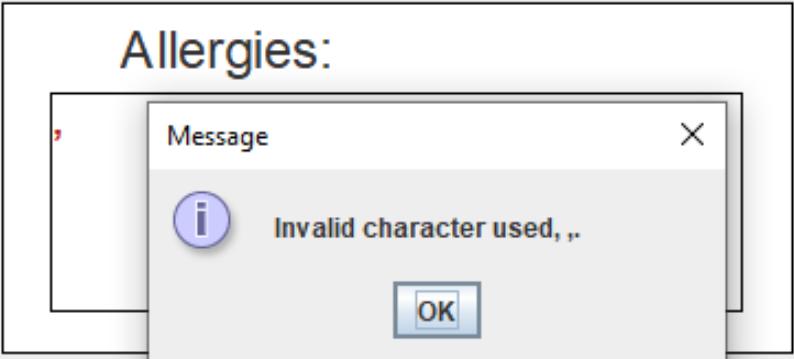
	<pre> catch(Exception exc) { JOptionPane.showMessageDialog(null, "Please enter a correct date"); validated = false; }//if any errors are found they are caught here } catch(Exception exc) { JOptionPane.showMessageDialog(null, "Please enter a correct date"); return; }//if any errors are found they are caught here </pre>	
Rectified		

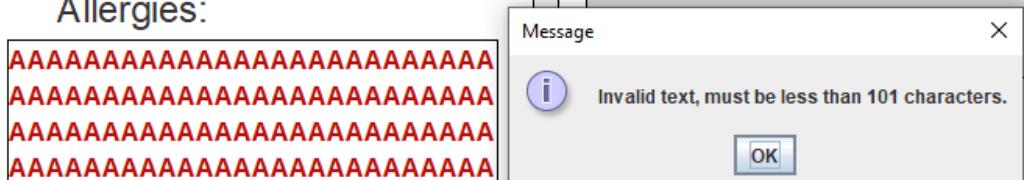
Test ID	1.222
Data Set	<Range> Between (todays date – 120 years) and (todays date)
Evidence	
Actual Commentary	When the patient creation panel was generated the Date picker had its settings class also generated too, after this the settings vetoed any dates outside the constraints of (todays date – 120 years) and todays date. When it came to observing the dates outside of the bounds they were unselectable and greyed out. Because of this we can say this test has been passed due to no dates outside the range being able to be used.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

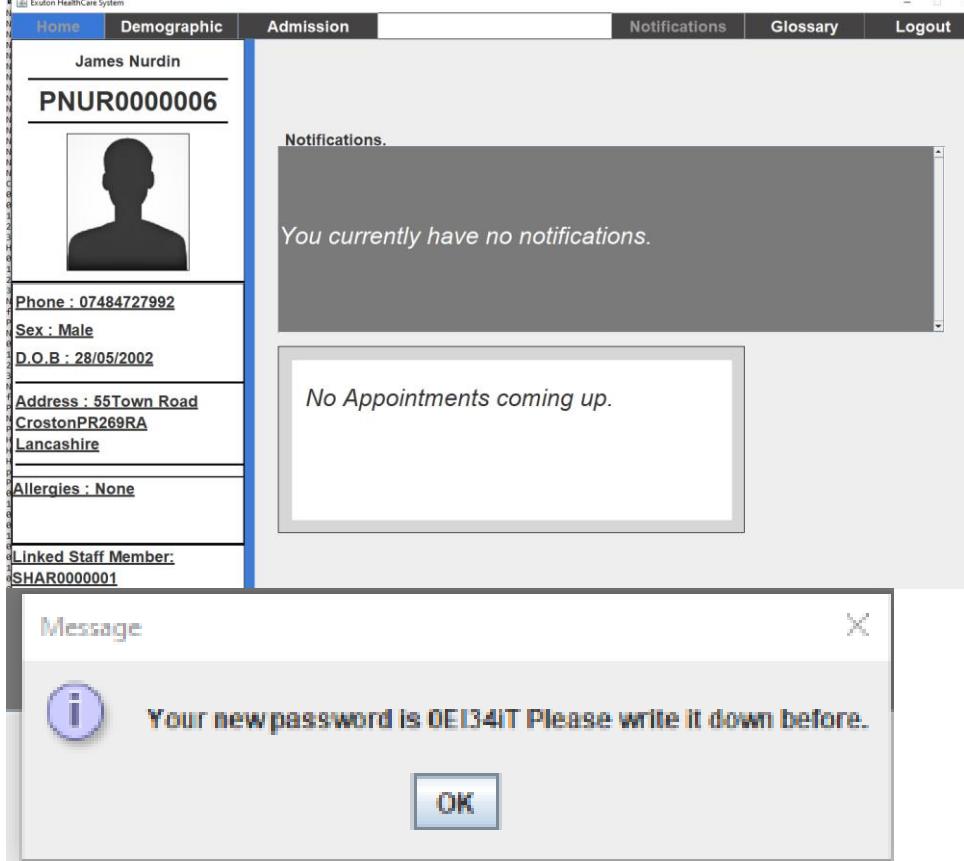
Test ID	1.23
Data Set	<Null>
Evidence	<p>Gender: Please select the gender you identify as.</p>  <p>please select a Gender.</p> <p>OK</p>
Actual Commentary	On the start of the system I navigated to the patient creation panel, from here I entered data set U1 however I left the drop down box for the gender as null by setting the value as the prompt. After doing this I then attempted to create the account but was met with the popup that the action couldn't be achieved as the user would need to select a patient. The process of creating the account was terminated early. Because of this we can say this test has been passed.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	1.24
Data Set	<Range> Between (0) and (30)
Evidence	<p>Average units a week: 30</p> 
Actual Commentary	When greeted with the patient creation panel the slider only had the ranges of 0 to 30, as the data is always bound by the ranges specified by the component any attempt to go outside the boundary is impossible and as a result no invalid data can be entered by using the component. When the user attempted to create the account the field has the current attribute set as the integer displayed resulting in the desired integer being set. When I attempted to change the value of the slider the attached listener detected a change of state and updated the label. Because of this we can say this test has been passed.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	1.251
Data Set	<Null>
Evidence	<p>Allergies:</p> <p>Please enter any Allergies You may possess</p>  <p>The screenshot shows a patient creation form with an 'Allergies' input field. A validation message dialog is overlaid, stating 'Invalid Allergies, missing.' with an 'OK' button.</p>
Actual Commentary	When the system starts I navigated to the patient creation panel, here I entered all the other values that were required for the system to work, however I left the text area in the initial empty state with no text filled in, when I proceeded to create the account the popup appeared that the field was empty and to add to this the process to create the account terminated before anything could be created. Because of this we can say this test has been passed.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	1.252
Data Set	<Type> “,”
Evidence	<p>Allergies:</p> 
Actual Commentary	Here I entered all the other valid information except for this field, here I entered the character “,” after pressing the create account button the text was sent through to the patient instance and was validated here this particular attribute was checked so that if the character “,” was seen in the string validation would return false, after returning the value the popup was created informing the user of the invalid character and the process of creating an account was ceased. Because of this we can say this test has been passed.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	1.253
Data Set	<Extreme> “A X101”
Evidence	<p>Allergies:</p> 
Actual Commentary	Here I entered the system and then proceeded to enter all the needed data. After reaching the text area I then entered 101 characters of the letter A, this completely filled the entire text area. After pressing the create account button, validation occurred on the field where the boolean value false was returned because of this a popup appeared informing me that the text was longer than 101 characters and the length needed to be shorter, after this the process of creating a patient terminated. Because of this we can say this test has been passed.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	1.3
Data Set	N/A
Evidence	 <p>The screenshot shows the Exton HealthCare System software interface. At the top, there is a navigation bar with tabs: Home, Demographic (which is selected), Admission, Notifications, Glossary, and Logout. Below the navigation bar, the main content area displays a patient's information: James Nurdin, with a patient number PNUR000006. It includes a placeholder profile picture, a phone number (07484727992), sex (Male), date of birth (28/05/2002), address (55 Town Road, Croston PR269RA, Lancashire), allergies (None), and a linked staff member (SHAR000001). To the right of the patient details, there is a 'Notifications' section stating 'You currently have no notifications.' and a 'No Appointments coming up.' section. A message box at the bottom left says 'Your new password is OEI34iT Please write it down before.' with an 'OK' button.</p>
Actual Commentary	Before performing test 1.1 I was initially on the login panel, after proceeding to create a patient account I was moved to the patient demographic creation panel, here all the components were initialised and then assigned the correct values. After entering the data and then pressing create account I was then moved to the patient home page in the time in between the instance and been created and a password was generated along with a popup informing me of the password. When the homepage was generated all the new data was in the expected fields. As a result of this I can confirm that the test was a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test Plan 2, Objective No. 1, Input/select symptoms into expert system

Test ID	Test Type	Purpose/Expected Output	Pass?
2.1	Functionality	When the panel has loaded the user should be able to interact with the interface by selecting items in the check boxes and also entering text into the text fields. As this occurs the user should also have the ability to interact with whatever they want to on the interface, in particular they will enter the relevant data from data set A1. After they have finished entering the information on the panel they can press the request admission button where their information should then go on to be validated.	
2.211	Validation (Affected Areas) <Null>	Here when the user attempts to enter information onto the panel, after entering data into every other field/section they should leave the human blank, from here they should see that the human remains completely white after this they should press the request admission button. Here a popup should appear informing them that at least one area needs to be selected.	
2.212	Validation (Affected Areas) <Extreme>	In this test the aim will be to test that every option can be selected in the affected areas check boxes. While testing every available combination won't be time efficient and effective the testing of extreme inputs should provide enough evidence to show that feature works. Anyway after each area has been selected the user should press the request button and should expect no popups to occur.	
2.221	Validation (Type of pain) <Null>	Now that the validation for the body is finished we can move to the type of pain. Initially when the system starts the type of pain box should have no selected boxes. When the user goes to fill in the fields they should leave out this box in particular. After this when they press the request admission button a popup should appear informing the user that an option should be selected.	
2.222	Validation (Type of pain) <Range>	When the user goes to select an option from the check boxes only button should be able to be selected from the options, this should occur in the form of a button group so when one button is selected and the user selects another the original check box should be deselected. Besides this before the request button is pressed only one button should be selected.	
2.231	Validation (Symptoms) <Null>	The final field to be tested is the symptoms box. For this test the user will leave all 4 fields empty after filing in the rest of the information when they request that the admission is created the values should be passed into a method which validates the fields, when they are passed through validation should see that no data has been entered by the user and return false. After this a popup should be generated along with the termination of the admission creation.	Rectified
2.232	Validation (Symptoms) <Type>	For this test the user should attempt to enter the invalid character "," into any of the symptom fields, when they have finished entering the rest of the data and request that the admission is generated the validation method should detect the error and then return false. After this a popup should be generated and inform the user that the entered character is forbidden. This process should also terminate further running of the method.	
2.233	Validation (Symptoms) <Extreme>	When the user attempts to enter the information into any of the four text fields the system should pass the entered data into a validation method, here the system should detect that the entry has exceeded the length specified by the system. Here it should return false and then create a popup informing the user.	
2.3	Navigation	This feature does not utilise much panel navigation however does use many graphical features for the human body. Regardless wherever the function starts the user, when the user selects the new admission button they should be brought to the panel: newAdmissionPanel, here none of the graphical components should have any of the fields filled in, except for prompt text. After this when the user selects a body part the human should display the limb in red. After this when the user has finished by selecting the request button should move the user to the panel: symptomRecomendationPanel.	

Test ID	2.1
Data Set	A1
Evidence	
Actual Commentary	When the system loaded I then proceeded to enter all the information from data set A1 with no visible issues. For the body I selected the chest and head boxes with both instances producing the correct update on the correct visual update. After this I then attempted to enter the text into the symptom boxes where I could see the prompt text disappear after the text. Finally I selected a type of pain and then pressed the request button without any issues being generated. Because of this not creating popups to indicate errors we can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

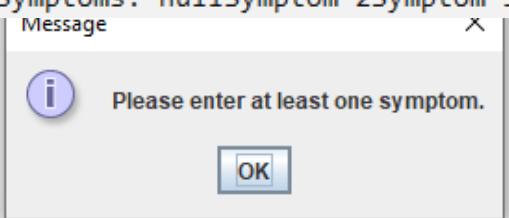
Test ID	2.211
Data Set	<Null>
Evidence	<p>Please select the areas where the pain resonates from.</p> <p>Message X</p> <p>Please select an area.</p> <p>OK</p>
Actual Commentary	For this test I loaded the panel and proceeded to enter all the appropriate data into the system, with of course the selected body parts being left null. When the data input had finished I pressed the request admission button. Here the number of selected body parts was incremented with all the text from each selected field being concatenated. Once the data was passed into the field a presence check returned false on the data indicating that the data failed to meet the requirements of at least one option. Finally the process terminated and the popup was generated informing the user of the error. Because of this we can accept the test as a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

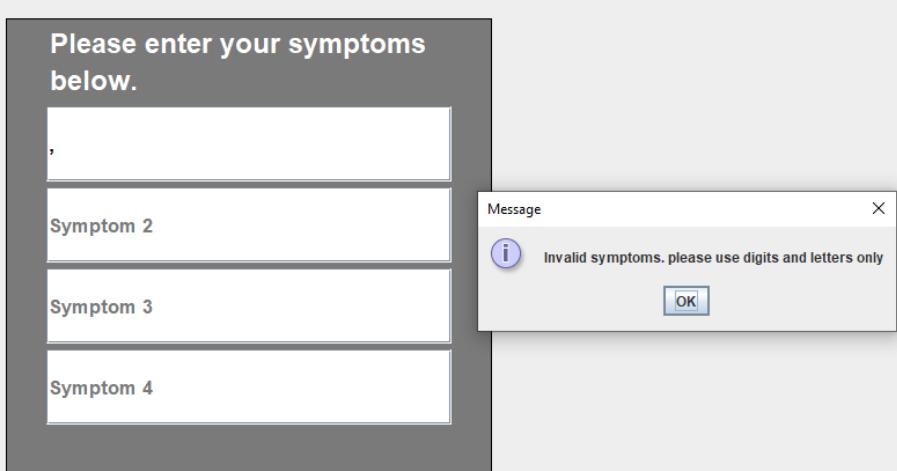
Test ID	2.212
Data Set	<Extremely> “all possible values”
Evidence	<p>Please select the areas where the pain resonates from.</p> <p> <input checked="" type="checkbox"/> Neck <input checked="" type="checkbox"/> Head <input checked="" type="checkbox"/> Chest <input checked="" type="checkbox"/> Shoulder <input checked="" type="checkbox"/> Hips <input checked="" type="checkbox"/> Forearm <input checked="" type="checkbox"/> Hand <input checked="" type="checkbox"/> Arm <input checked="" type="checkbox"/> Abdomen <input checked="" type="checkbox"/> Pelvis <input checked="" type="checkbox"/> Leg <input checked="" type="checkbox"/> Foot </p>
Actual Commentary	Unlike test 2.211 where I attempted to produce a null pointer exception here I attempted to select all available options on the system. As there is no upper limit before the maximum number of parts have been selected when I pressed request admission the number of parts iterated through and when passed through to validation returned a boolean value of true. Because of this after retuning the value the validation hadn't failed and correctly moved the user to the next panel. Therefore we can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	2.221
Data Set	<Null>
Evidence	<p>Please select the type of pain in the selected areas</p> <p>Chronic pains</p> <p>Acute pains</p> <p>Stiffness in muscle</p> <p>Frequent recurring pains</p>
Actual Commentary	After pressing the new admission button I was brought to the panel, after this I entered all the required data I needed inputting, making sure that none of the type of pain checkboxes were selected. After pressing the create admission button the system retrieved all the data from the components, with this section all the text was set to a string where it could be validated. After being passed through the presence check occurred on the data, when the value false was returned a popup was generated informing the user that an error had occurred. To add to this the process of moving the user on also stopped. Because of this we can call the test a success and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	2.222
Data Set	<Length> 1 item selected only
Evidence	<pre>ButtonGroup typeOfPainE = new ButtonGroup(); JCheckBox cbChronicPainsE = new JCheckBox("Chronic pains");//declares a text box that JCheckBox cbAcutePainsE = new JCheckBox("Acute pains");//declares a text box that JCheckBox cbStiffnessInMuscleE = new JCheckBox("Stiffness in muscle");//declares a JCheckBox cbFrequentRecurringPainsE = new JCheckBox("Frequent recurring pains");//d</pre> <pre>typeOfPain.add(cbChronicPains); typeOfPain.add(cbAcutePains); typeOfPain.add(cbStiffnessInMuscle); typeOfPain.add(cbFrequentRecurringPains);</pre>
Actual Commentary	While visual proof may be more than necessary I believe the source code will be more than enough evidence to support the claim that when I launched the program and went to select the first item it did so as any normal check box, but after this every subsequent click on any other box would lead to the others being unselected. Because of this I will accept the test and claim it to be a success. As I feel no more needs to be said and so I will continue.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

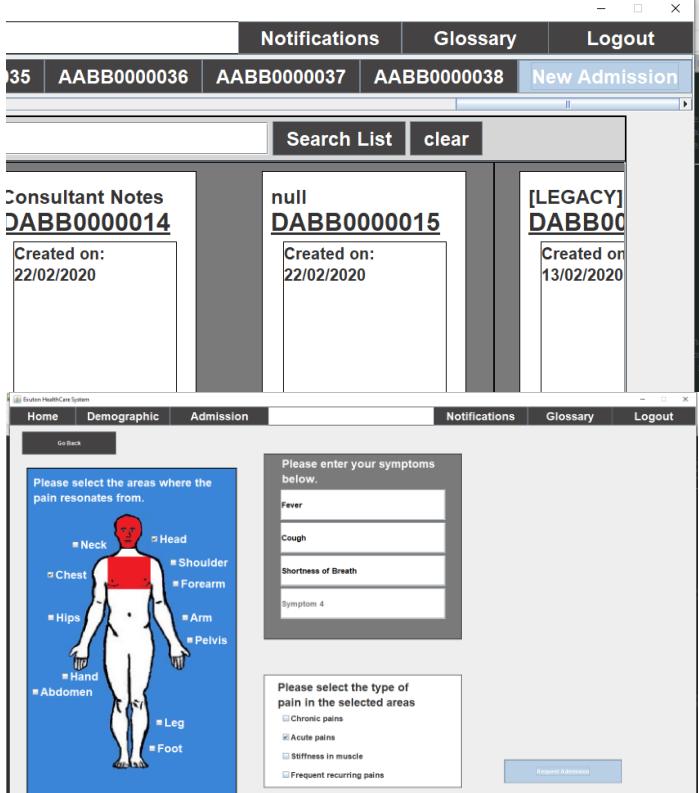
Test ID	2.231
Data Set	<Null>
Evidence	
Actual Commentary	<p>When I started the system I proceeded to leave the symptom boxes null and carried on entering data to the rest of the fields. However what was unexpected was that no popup had been created as well as the panel moving on indicating that validation was successful. Curious to see what would happen I continued and generated the admission (see test 3). As a result the system managed to create a new instance of admission and get it written to file. From a front end point of view you can clearly see that the contact bar failed to load properly with the system managing to order the components in the contact bar in the wrong order with the wrong data. However when it came to inspect the file everything was normal except the missing symptoms of course. Because of this I will regard the test as a failure.</p>

Further actions /Enquiry	<p>The test failed due to the fact I had forgot to consider in the presence test that the value null would be entered as string, despite believing I had used it, so when it was passed through to the presence checker it would see that some characters actually existed in the variable, not only this but that for the symptom checker I forgot to exclude values that were missed out by the user, which also indicated that it wasn't yet perfected. The fixes where simple for the symptoms I would just null the values that contained the word symptom and for any value that contained the word null it would be considered as empty.</p> <p>As a foot note it also means that words such as nullify and nullable also are considered as empty values, however I am happy to continue like this. Also to prevent further errors the system will examine what the user enters. With the errors fixed the test is now to be considered a success.</p> <p>Type of Pain: Chronic pains Symptoms: nullSymptom 2Symptom 3Symptom 4</p>  <pre data-bbox="377 864 1367 1140"> tmpAdmission.listOfSymptoms[0] = symptom1TF.getText(); //sets attribute f tmpAdmission.listOfSymptoms[1] = symptom2TF.getText(); //sets attribute f tmpAdmission.listOfSymptoms[2] = symptom3TF.getText(); //sets attribute f tmpAdmission.listOfSymptoms[3] = symptom4TF.getText(); //sets attribute f for(int counterSymptoms = 0;counterSymptoms<4;counterSymptoms++) { if(tmpAdmission.listOfSymptoms[counterSymptoms].contains("Symptom")) { tmpAdmission.listOfSymptoms[counterSymptoms]=""; } } </pre>
Rectified	

Test ID	2.232
Data Set	<Type> “ ”
Evidence	

Actual Commentary	After loading the system and moving to the new admission panel here I entered all the required data needed for the test, making sure that in the symptom box the data inputted was the character “,”. After entering this I then proceeded on pressing the request admission button. After it had been pressed the string had been concatenated together and then checked the string to see if the prohibited characters were being used. When the boolean value false was returned the popup informing the user of the error was produced along with the termination of the method also. Because of this we will accept the test.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	2.233
Data Set	<Extremely long string> “A X26”
Evidence	
Actual Commentary	With the next test we entered all the normal information onto the system, to add to this to test the length of the text field I also entered the character “A” 26 times to check the extreme case scenario for the text field. After pressing request admission button the fields and before they were concatenated individually checked to make sure that each line didn’t exceed the limit of 26 characters. As expected the value false was returned back from the method and the function was returned. Finally as the error was detected a popup was created informing me of the fault.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	2.3
Data Set	N/A
Evidence	 <p>The evidence consists of three screenshots from a healthcare application. The top screenshot shows a search results page with three entries: 'Consultant Notes DABB000014' (Created on: 22/02/2020), 'null DABB000015' (Created on: 22/02/2020), and '[LEGACY] DABB000016' (Created on: 13/02/2020). The middle screenshot shows a symptom entry form with a human body diagram where the head, neck, chest, and abdomen areas are highlighted in red. A list of symptoms includes: Fever, Cough, Shortness of Breath, and Symptom 4. The bottom screenshot shows a recommendation panel stating: 'We feel with the symptoms you have given, you would benefit with an admission.' It also includes a note: 'From this we will create an appointment that is at your best convenience, all we need you to do is login.' A 'Create Admission' button is visible.</p>
Actual Commentary	<p>Initially when I started on the system the test began on the admission homepage on my first admission after pressing the new admission button I was brought to the symptom entry panel where all the fields were empty and were correctly generated. After I entered my desired information on the system I then continued on to finalise the creation on the recommendation panel. After pressing the create admission button the instance was generated and I was then moved back to the admission panel, this time the admission was the newest inclusion with all correct buttons and fields being representative of the fact. Because the navigation was working correctly we can call the test a success and move onto the next objective.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test Plan 3, Objective No. 4, Generating a new admission

Test ID	Test Type	Purpose/Expected Output	Pass?
3.1	Functionality	Here, once the user has entered their symptoms and problems in the last panel (see test 2) they will want the admission created on the account. After pressing the Create admission button the new admission should then have any remaining attributes generated for instance the date of creation and the AdmissionID then the admission should be attached to the patient instance and have it written to the bottom of their file. To add to this the number of admissions should also increment. Once this is done the instance should update to reflect any file changes.	Rectified
3.2	Validation	<i>Data already validated, please refer to test 2.2</i>	Not performed
3.3	Navigation	<i>Objective already has had navigation testing, please refer to test 2.3</i>	Not performed

Test ID	3.1
Data Set	A1
Evidence	
Actual Commentary	<p>After the information has been validated the user was brought to a final screen, informing they have the ability to create an admission. From here they have to press one final button indicating they want the admission made, next an error had occurred causing a logical error to occur causing the text file to contain the word null many times for the area of symptoms and the body parts. Despite this no error exceptions were thrown, and both the consultant and patient admission successfully had the foreign key of each other. So despite the task being successfully created (an admission had been created and correctly assigned to the users) two fields of data where incorrect and invalid.</p>

Further actions /Enquiry	<pre> String concatenatedSymptoms=admission.listOfSymptoms[0]+""; for(int indexAreasCount = 1;indexAreasCount<listOfSymptoms.length();indexAreasCount++) { try{ concatenatedSymptoms=concatenatedSymptoms+admission.listOfSymptoms[indexAreasCount]; } catch(Exception exc) { } } String concatenatedAreasAffected=admission.listOfAreasAffected[0]+""; for(int indexAreasCount = 1;indexAreasCount<numOfAreas;indexAreasCount++) { try{ concatenatedAreasAffected=concatenatedAreasAffected+admission.listOfAreasAffected[indexAreasCount]; } catch(Exception exc) { } } </pre> <p>string null for each body part, as no body part has null in it we are fine with using contains. With the changes made and issues rectified the test was now a success.</p>	The issue was actually caused by two separate instances. For the symptoms a for loop was used to add all the symptoms together despite there only being 4 indexes, the fix was to just manually add the data together. For the areas, the issue was that the string "null" was being passed through allowing it to be written to file, the fix here was to just have a selection statement check for the
Rectified		

Test Plan 4, Objective No. 8, Add employees

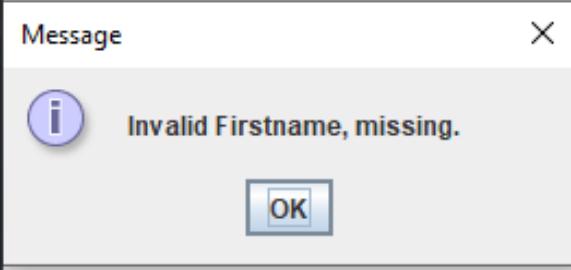
Test ID	Test Type	Purpose/Expected Output	Pass?
4.1	Functionality	For this process the user will need to enter the employee's demographic fields for the entire entity, when each field is entered it is immediately validated by the system to identify erroneous input. After all the user input has been entered for the entity, the system should use the information to generate all the remaining information required. Finally a new file should be generated, using the employee generated (test 54), the information should then be written to file. To add to this the EmployeeID should also be written to the employeeActionLog file. Finally the password should be generated and displayed to the user.	
As this objective draws upon many fields for it to operate, it would be unwise and a waste of time to brute force each validation test on every field. Similar to what was performed in test 1.2 I will conduct the validation in the same manner, however as the user interface is text based I will this time perform validation on different kinds of data types and requirements, also ensuring that any unique cases are also represented as well. For instance all attributes that would use a text field for data input will be done as one due to the fact the same validation method is used. This assumption can be done due to the fact the same data in both instances would return the same value. As the staff entities both inherit virtually all attributes validation will only need to occur once for both entities. The issue with this method, compared to the one in test 1.2 is that as the interface here is text based a lot of validation that could have been avoided by the GUI components can't be with a text based one.			
4.211	Validation (String) <Null>	For this test hen the user uses the system and is required to enter text for a string they should ignore the request and then just press enter to move onto the next field. When this occurs the fields input should be immediately validated and checked, a presence validation method should be ran on the input. Here the method should return false. Here the system should generate a popup informing the user that the field contains no data. The process requesting input should repeat until true is returned.	Rectified

4.212	Validation (String) <Type>	When the user starts the function and needs to enter a string they should enter a character other than a letter. When they press enter to continue the system should take the input and pass the data through a type validation method. The method should return false and a popup should appear informing the user that the field input is invalid. The process requesting input should repeat until true is returned.	
4.213	Validation (String) <Extreme>	When the objective starts the user will be requested to enter information into the field. When they go to enter the text, they should enter a string longer than the maximum number of characters allowed. When they press enter key the data should be passed through a method which checks the length hasn't been exceeded. A false value should be returned which should hence create a popup informing them of the error. The process requesting input should repeat until true is returned.	
4.214	Validation (String – SURNAME ONLY) <Length>	(This test only applies to the surname field; besides presence validation no lower limit is needed for any other field). When the user starts the objective and is required to enter their surname, the user will enter a string with two characters. The value should be passed through to a length checker and a boolean value of false should be returned. Finally a popup should appear informing the user that a minimum number of characters are required for the surname. The process requesting input should repeat until true is returned.	
4.221	Validation (Integer) <Null>	When the user access the objective they will then be requested to enter an integer value between a given range. The user should proceed by leaving the text empty. When they press enter the system should then pass the value through a presence check, a value of false should be returned from the program, after this a popup should appear that the field entered was null. The process requesting input should repeat until true is returned.	Rectified
4.222	Validation (Integer) <Type>	When the user runs the objective the user at this point will be required to enter an integer value. After this point the user should attempt to enter a string, the value here should be passed into a type validation method, a boolean of false should be returned from the method. After this a popup should appear informing the user that the input was erroneous. The process requesting input should repeat until true is returned.	
4.223	Validation (Integer) <Range>	When the user starts the function they should proceed to this section, here they will be asked to enter an integer between two ranges, the user should enter a value outside the given range, when they press enter the system should then check that the value by passing it through a range validation method. As incorrect the method should then return false. After this a popup should appear informing the user that the input was erroneous. The process requesting input should repeat until true is returned.	
4.231	Validation (DATE) <Null>	For this test when the user logs into the system and starts the function, they will be asked to enter a date for the user, here they should avoid entering a date and then continue and press enter. The fields should be passed through the validation method and check whether its empty. The value false should be returned from the method. After this a popup should appear informing the user that the input was erroneous. The process requesting input should repeat until true is returned.	
4.232	Validation (DATE) <Range>	When the user starts the system the user will proceed to the feature, here they will be requested to enter their date of birth. Here they should enter a date that is after the current date. The date then should be passed through the validation method and then checked that it is in range. After this a value of false should be returned to the method. After this a popup should appear informing the user that the input was erroneous. The process requesting input should repeat until true is returned.	

4.241	Validation (String Array) <Null>	For this test the user should be presented a list of items, from this they will be requested to enter a value from the list, here they the user should continue to enter no information, the input will then be passed into the validation method. A value of false should then be returned. This will stop the method before the search starts. After this a popup should appear informing the user that the input was erroneous. The process requesting input should repeat until true is returned.	
4.242	Validation (String Array) <Type>	For this test the user should be presented a list of items, from this they will be requested to enter a value from the list. Here they will enter a value of an invalid data type. The user input should be passed into the validation method, the input then should be checked to see that the data type is correct, the system should return a value of false. After this a popup should appear informing the user that the input was erroneous. The process requesting input should repeat until true is returned.	
4.243	Validation (String Array) <Lookup>	For this test the user should be presented a list of items, from this they will be requested to enter a value from the list. Here the user will enter an item from the list, here lookup validation will be ran to see that the item exists on the list, the user should enter a correct value and should expect that the value true is returned. After this a popup should appear informing the user that the input was erroneous. The process requesting input should repeat until true is returned.	
4.251	Validation (Boolean) <Null>	Here the user will start the system from here they will be requested to enter a boolean value, the user will then proceed to enter this value, it should then be passed through to a validation method, here the system will then check the input to see that it contains data. The system should return a value of false. After this a popup should appear informing the user that the input was erroneous. The process requesting input should repeat until true is returned.	
4.252	Validation (Boolean) <Type>	For this user they should be requested to enter a boolean value, here the user should then attempt to enter an input of an erroneous data type. The system should pass this value into the validation method, the system should detect the error and then return the value false. After this a popup should appear informing the user that the input was erroneous. The process requesting input should repeat until true is returned.	
4.3	Navigation	As the interface is text based the navigation will work a little differently, when the user starts the feature they will start at the management entity menu and then will move to the consultant option menu after this they will select the option to create a new consultant. They should then be shown a series of requests to enter input for each instance they should enter the values for each line. At the end the system should output their password and return them to the homepage.	

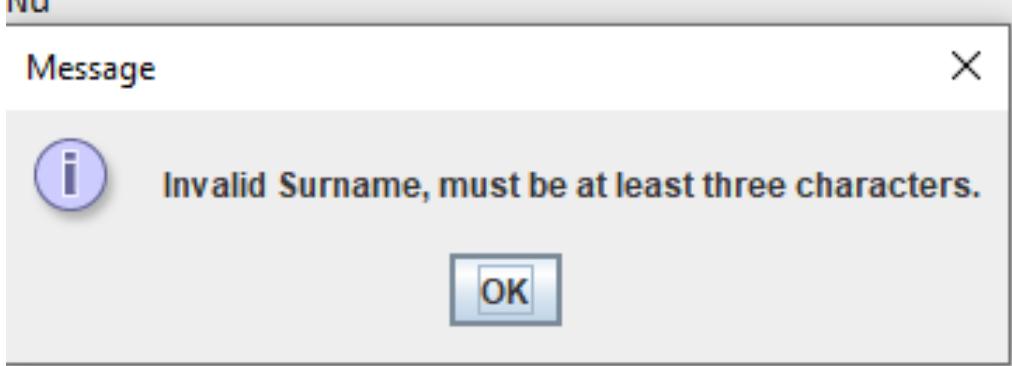
Test ID	4.211
Data Set	U1, E1, S1
Evidence	<p>Please enter the account's Firstname James</p> <p>Please enter the account's Surname Nurdin</p> <p>Please enter the account's House Number 55</p> <p>Please enter the account's Street Town Roas</p> <p>Please enter the account's Town Croston</p> <p>Please enter the account's postcode PR269RA</p> <p>Please enter the account's county Lancashire</p> <p>Please enter the account's contactNum 07484272992</p> <p>Please enter the account's nationality English</p> <p>Please enter the account's cigarettes consumed each day(INT) between 0 and 25 inclusive 0</p> <p>Please enter the account's units consumed each week(INT) between 0 and 30 inclusive 12</p> <p>Please enter the account's dob in the form DD/MM/YYYY 28/05/2002</p> <p>Please enter the account's religion Christian</p> <p>Please enter the account's allergies to seperate allergies use spaces None</p> <p>Please enter the account's gender Male</p> <p>Female</p> <p>Other</p> <p>Male</p> <p>Found!</p> <p>Please enter the account's bloodtype A+</p> <p>A-</p> <p>B+</p> <p>B-</p> <p>O+</p> <p>O-</p> <p>AB+</p> <p>AB-</p> <p>A+</p> <p>Found!</p> <p>Please enter the account's disability type None for none, leave a space for any others</p> <p>Please enter the account's carer state (true or false) false</p> <p>Please enter the account's translator state (true or false) false</p> <p>Please enter the account's sex Male</p> <p>Female</p> <p>Other</p> <p>Male</p> <p>Found!</p> <p>Please enter the account's wage as real 2dp 12.00</p> <p>Please enter the account's hoursPerWeek between 1 and 48 inclusive 48</p> <p>Please enter the account's located ward Physiotherapy</p> <p>Please enter the account's number Of disiplines(5 max) 2</p> <p>Disipline 0 Cardiorespiratory</p> <p>Disipline 1 Gerontology</p> <p>CNUR0000010,ENUR0000010,EM[g[q<,Nurdin,James,55,Town Roas,Croston,PR269RA,07484272992,English,A +,0,12,28/05/2002,Christian,None,Male,None,false,false,Male,Lancashire,29/0 2/2020,12.0,48,false Cardiorespiratory#Gerontology,0,Physiotherapy</p>

Actual Commentary	When I started the test I navigated myself to the correct place, after selecting create new consultant I was met with a request to enter a specific attribute of the new instance I wanted to create. After entering the field and pressing enter I was met with another request. After repeating this for a while I was then returned to the home screen where I was shown the new password of the account I created. While this happened the entityId was generated and as a result the surname file incremented the surname, to add to this the entity had their own file created where all the newly entered information had been entered. Finally their employee had been entered in the employee action log. As all locations of the employee were correct I can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	4.211
Data Set	(String) <Null>
Evidence	<p>Please enter the account's Firstname</p> 
Actual Commentary	When I started the feature I proceeded to the objective and navigated to the create consultant feature, from this I entered the correct inputs until I reached the first name field. I then proceeded to leave the field blank and press the enter key, after this the value was passed through to my validation method where it saw it was null and returned false. Finally a popup appeared to the user to inform them that the field was invalid. After this the request was repeated again. As no issues had occurred with the validation I can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	4.212
Data Set	(String) <Type>
Evidence	<p>Please enter the account's Firstname !</p>
Actual Commentary	When I started the feature I proceeded to the objective and navigated to the create consultant feature, from this I entered the correct inputs until I reached the first name field. After this I proceeded to enter into the field the character "!", I then pressed enter and the value was passed into the string validation method where the input was checked that only strings had been entered, a value of false was returned. Finally a popup appeared to the user to inform them that the field was invalid. After this the request was repeated again. As no issues had occurred with the validation I can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	4.213
Data Set	(String) <Extreme>
Evidence	<p>Please enter the account's Firstname AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA</p>
Actual Commentary	When I started the feature I proceeded to the objective and navigated to the create consultant feature, from this I entered the correct inputs until I reached the first name field. From here I attempted to enter the character "A" more than 25 times, after this I pressed the enter key where the input would have been passed into the length validation, the length was detected to exceed the limit and the value false was returned by the method. Finally a popup appeared to the user to inform them that the field was invalid. After this the request was repeated again. As no issues had occurred with the validation I can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

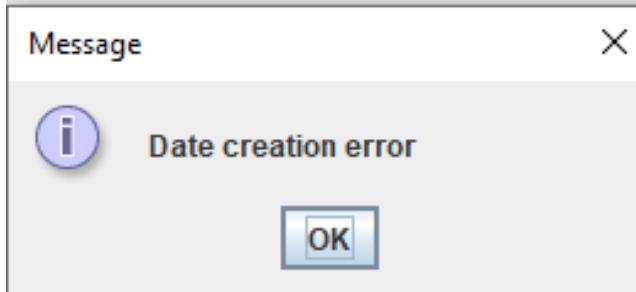
Test ID	4.214
Data Set	(String – SURNAME ONLY) <Length>
Evidence	<p>Please enter the account's Surname Nu</p> 
Actual Commentary	When I started the feature I proceeded to the objective and navigated to the create consultant feature, from this I entered the correct inputs until I reached the surname field. Here I then attempted to enter only two characters into the field after this I then pressed the enter key, after this the value was then passed into the lower length validation method where the item was checked to see if the length exceeded 3, as it didn't the method returned false. Finally a popup appeared to the user to inform them that the field was invalid. After this the request was repeated again. As no issues had occurred with the validation I can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

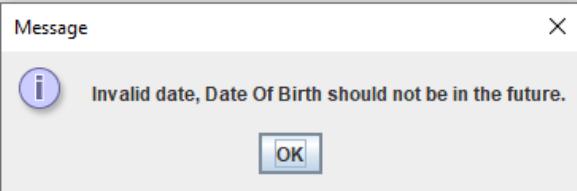
Test ID	4.221
Data Set	(Integer) <Null>
Evidence	<p>Please enter the account's cigerettes consumed each day(INT) between 0 and 25 inclusive</p> <p>Please enter the account's cigerettes consumed each day(INT) between 0 and 25 inclusive 0</p> <p>Please enter the account's cigerettes consumed each day(INT) between 0 and 25 inclusive 25</p> <p>Please enter the account's cigerettes consumed each day(INT) between 0 and 25 inclusive sdf</p>
Actual Commentary	When I started the feature I proceeded to the objective and navigated to the create consultant feature, from this I entered the correct inputs until I reached the cigarettes field. Here I proceeded to leave the entire field; however I encountered an error with the cigarettes where regardless of the data being correct or not it would not accept the data. Because of this the test was immediately terminated and is to be put down as a failure.

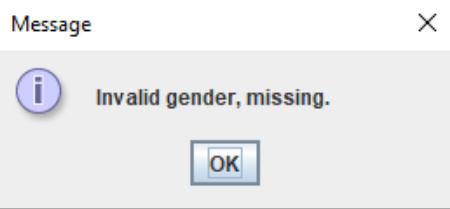
Further actions /Enquiry	<p>When inspecting the code, there appeared to be no issue inside the management entity</p> <pre style="background-color: #2ECC71; color: white; padding: 5px;">if((value<=endInclusive) && (value>=startInclusive)) { return true; } else if((value>=endInclusive) && (value<=startInclusive))</pre> <p>as everything was normal. This led me to speculate whether it was returning false constantly for the int validation method, when in the user method I saw that the comparison between the two dates was logically wrong (image 1). When we break down the statement we can see that it is checking that the cigarettes count was occurring both before the lower limit and after the upper limit, so as result regardless whether we entered data in the desired bounds it would always return false. The fix was to swap the inequality signs, I am happy to say it works now, we can move onto the next test now.</p>
Rectified	

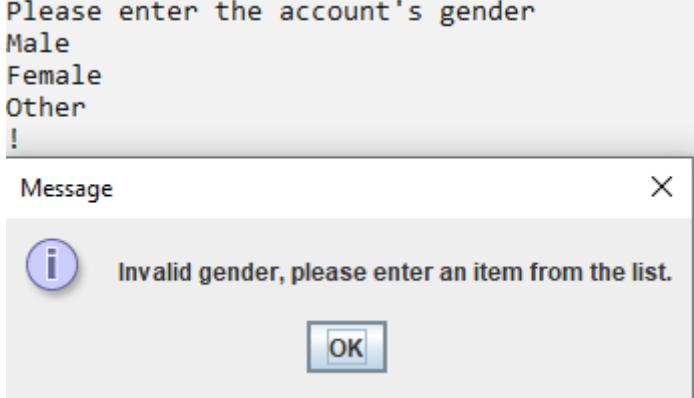
Test ID	4.222
Data Set	(Integer) <Type>
Evidence	<p>Please enter the account's House Number !</p>
Actual Commentary	<p>When I started the feature I proceeded to the objective and navigated to the create consultant feature, from this I entered the correct inputs until I reached the house number field. Here I then attempted to enter an erroneous character in the form of this "!", this input was then passed through to a validation method where it was checked to be an int, as it wasn't a false was immediately returned. Finally a popup appeared to the user to inform them that the field was invalid. After this the request was repeated again. As no issues had occurred with the validation I can call the test a success.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	4.223
Data Set	(Integer) <Range>
Evidence	<p>Please enter the account's cigarettes consumed each day(INT) between 0 and 25 i -1</p> 
Actual Commentary	When I started the feature I proceeded to the objective and navigated to the create consultant feature, from this I entered the correct inputs until I reached the cigarettes field. Once here I then attempted to enter an integer value that was out of bounds “-1” after pressing enter the value was then passed into the range validation method, where the input value was compared against the upper and lower limit, as the value was not between the two a return value of false was produced. Finally a popup appeared to the user to inform them that the field was invalid. After this the request was repeated again. As no issues had occurred with the validation I can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

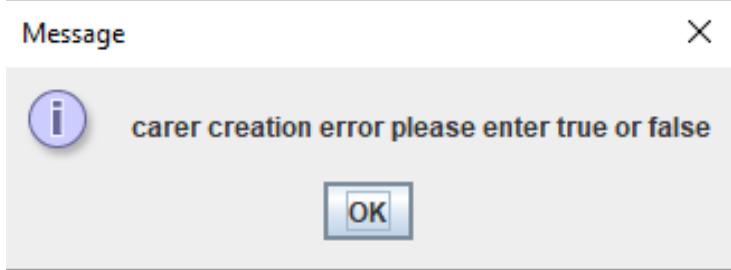
Test ID	4.231
Data Set	(DATE) <Null>
Evidence	<p>0 Please enter the account's dob in the form DD/MM/YYYY</p> 
Actual Commentary	When I started the feature I proceeded to the objective and navigated to the create consultant feature, from this I entered the correct inputs until I reached the date of birth field. Here I attempted to leave the field blank and then proceeded to press the enter key, the input was initially passed through a parsing method to see if the date could be generated however as it didn't follow the simple date format of DD/MM/YYYY (as it was empty) the exception was caught and a popup appeared to the user to inform them that the field was invalid. After this the request was repeated again. As no issues had occurred with the validation I can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

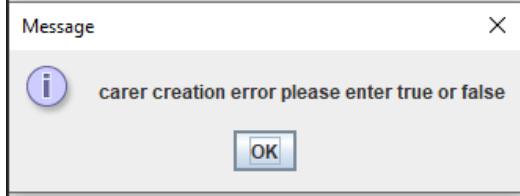
Test ID	4.232
Data Set	(DATE) <Range>
Evidence	<p>Please enter the account's dob in the form DD/MM/YYYY 28/05/3001</p> 
Actual Commentary	When I started the feature I proceeded to the objective and navigated to the create consultant feature, from this I entered the correct inputs until I reached the date of birth field. Here I attempted to enter a value that exceeded the current date "28/05/3001", after pressing enter the date was then successfully parsed and then passed into the range validation method where it was compared to the current date, as it exceeded the value a return value of false was issued. Finally a popup appeared to the user to inform them that the field was invalid. After this the request was repeated again. As no issues had occurred with the validation I can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	4.241
Data Set	(String Array) <Null>
Evidence	<p>Please enter the account's gender Male Female Other</p> 
Actual Commentary	When I started the feature I proceeded to the objective and navigated to the create consultant feature, from this I entered the correct inputs until I reached the gender field. For this I attempted to leave the field empty, following this I then pressed the enter key. The input was then passed into the presence checker where it realised it was null and returned a boolean value of false to me. Finally a popup appeared to the user to inform them that the field was invalid. After this the request was repeated again. As no issues had occurred with the validation I can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	4.242
Data Set	(String Array) <Type>
Evidence	<p>Please enter the account's gender Male Female Other !</p> 
Actual Commentary	When I started the feature I proceeded to the objective and navigated to the create consultant feature, from this I entered the correct inputs until I reached the gender field. At this point I attempted to enter a character that was not a string "!", after pressing enter a lookup validation is performed on the item where it is searched for throughout the list. As the item failed to appear on the list a boolean value of false was returned to the user. Finally a popup appeared to the user to inform them that the field was invalid. After this the request was repeated again. As no issues had occurred with the validation I can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	4.243
Data Set	(String Array) <Lookup>
Evidence	<p>Please enter the account's gender Male Female Other Male Found!</p>
Actual Commentary	When I started the feature I proceeded to the objective and navigated to the create consultant feature, from this I entered the correct inputs until I reached the gender field. After reaching here I then attempted to enter a suitable value that wasn't on the list, after pressing enter a lookup check as performed on the data, as the data exists in the list a return value of true was issued. Finally no popup appeared to the user to inform them that the field was invalid, but instead the word "Found". After this the request was repeated again. As no issues had occurred with the validation I can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	4.251
Data Set	(Boolean) <Null>
Evidence	<p>Please enter the account's carer state (true or false)</p> 
Actual Commentary	When I started the feature I proceeded to the objective and navigated to the create consultant feature, from this I entered the correct inputs until I reached the carer state field. When at this point I attempted to leave the field empty and press enter, when this occurred the value was attempted to be parsed as a boolean value. As nothing had been entered an exception was thrown when parsing, however this was caught and as a result a popup appeared to the user to inform them that the field was invalid. After this the request was repeated again. As no issues had occurred with the validation I can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	4.252
Data Set	(Boolean) <Type>
Evidence	<p>Please enter the account's carer state (true or false)</p> <p>1</p> 
Actual Commentary	When I started the feature I proceeded to the objective and navigated to the create consultant feature, from this I entered the correct inputs until I reached the carer state field. When at this point I attempted to enter an invalid character "!". After entering the value the input was then passed through to be parsed where it was unable to and then the method caught the exception being thrown because of it, as a result a popup appeared to the user to inform them that the field was invalid. After this the request was repeated again. After this the request was repeated again. As no issues had occurred with the validation I can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

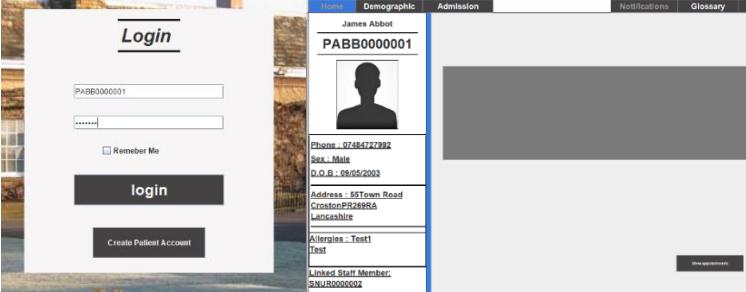
Test ID	4.3	
Data Set	N/A	
Evidence	<pre>=====Hello null===== Please enter an option 1.Veiw an employees action log 2.Consultant management Option 4.Staff management Option 9.logout ===== 2 username CTEM000001 ID CTEM000001 ID CTEM000001 ===== The account's password is this: LA\jA2j Please write it down =====</pre>	
Actual Commentary	<p>At the start I was located at the login panel, I proceeded to the management homepage where I then navigated to the consultant menus where I then pressed the create consultant option. After entering a series of fields I was then shown the password of the entity I had just created on the system. After this I was then returned back to management entities homepage. As no issues had occurred with the navigation of this objective, I can call the test a success.</p>	
Further actions /Enquiry	As no errors have occurred can proceed to the next test.	
Rectified	N/A	

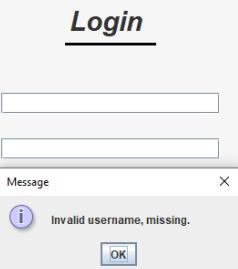
~~Test Plan 5, Objective No. 2, Determine suggestion~~

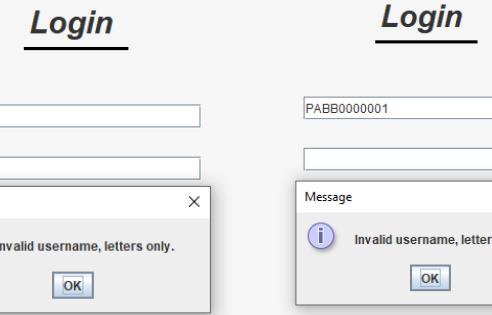
Test ID	Test Type	Purpose/Expected Output	Pass?
5	Functionality	<i>Objective was omitted during development, this will require further explanation, please consult evaluation for a more in depth analysis for the removal. From a complexity point of view the feature didn't seem to demanding at first however as I knew I wanted functionality over flashy features I knew that loading time and effort getting this working meant that other features would have had to be excluded, and so I believe I chose the better option. I believe for my system not doing enough was the issue but that I gave myself too much to do initially.</i>	Omitted

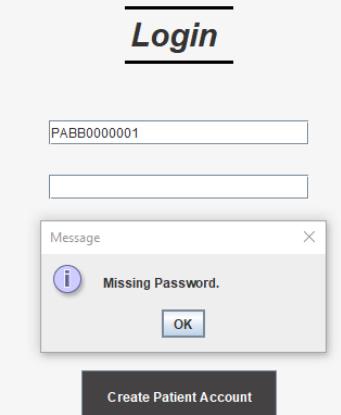
Test Plan 6, Objective No. 6, Login users

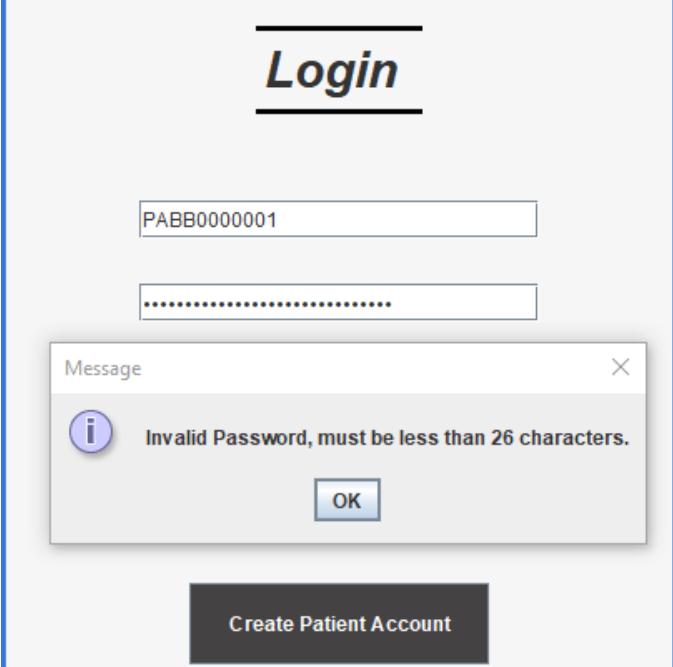
Test ID	Test Type	Purpose/Expected Output	Pass?
6.1	Functionality	When the user starts the program, they will be greeted with the start screen, here they will enter a valid data set. The data should then be passed into the validation methods (see below) after this then depending on the initial character the correct file should then be pulled and the instance should then be retrieved. After this if the password is the exact same as the one in the file they should be granted access to their homepage, otherwise a popup should be made informing the user that they were either erroneous or not correct.	
6.211	Validation (Username) <Null>	For this test when the user starts the system they will be greeted by the login panel. Here the user should leave the username box empty and proceed to fill in the password. After pressing login the value should be taken from the text field and then passed through to a validation check method. As the data is null the system should see the issue and then return the boolean value false. After this a popup should appear informing the user of the error.	
6.212	Validation (Username) <Type>	When the user starts the program they will be at the login panel, here they will attempt to enter into the username field the letter "!". The system should pass this value into validation where it is then checked to see if it is an int or a string. As the data contains neither string or integers the system should see the issue and then return the boolean value false. After this a popup should appear informing the user of the error.	Rectified
6.221	Validation (Password) <Null>	On starting the system the user will be on the login panel, here they will enter the username as normal. However for the password they will leave the field empty and proceed to login. The system should then perform a presence check on the field. As the data is null the system should see the issue and then return the boolean value false. After this a popup should appear informing the user of the error.	Rectified
6.222	Validation (Password) <Extreme>	At the beginning of the system the user should be at the login panel, at this point the user should enter the username in as normal and should then proceed to enter at least 26 characters of "A" onto the system. After this the user should then attempt to login, the input entered should be passed into a length validation method. As the data is too long the system should see the issue and then return the boolean value false. After this a popup should appear informing the user of the error.	
6.3	Navigation	When the system is initially launched the system should load all the components to the login panel, including the background image of Euxton hospital itself. When loaded the user should attempt to login (see above tests) for each of the main four entities of the system. When the correct information has been entered the system will then proceed to then initialise the instance and then generate the correct corresponding user interface. When finished the user should then see their account specific homepage to which all the components have been generated along with any fields having their information present. The panel order should be as follows: loginPanel – (entity homepages)	

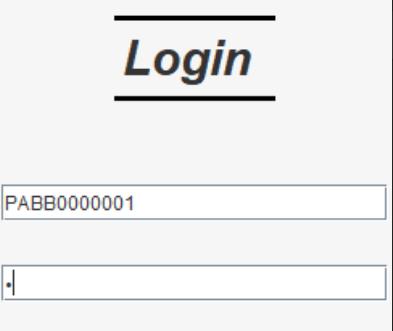
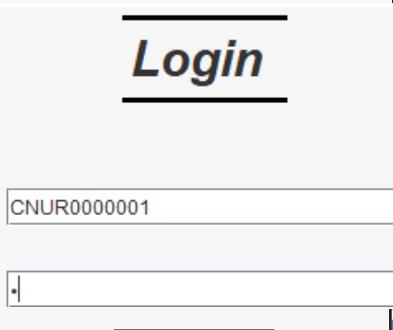
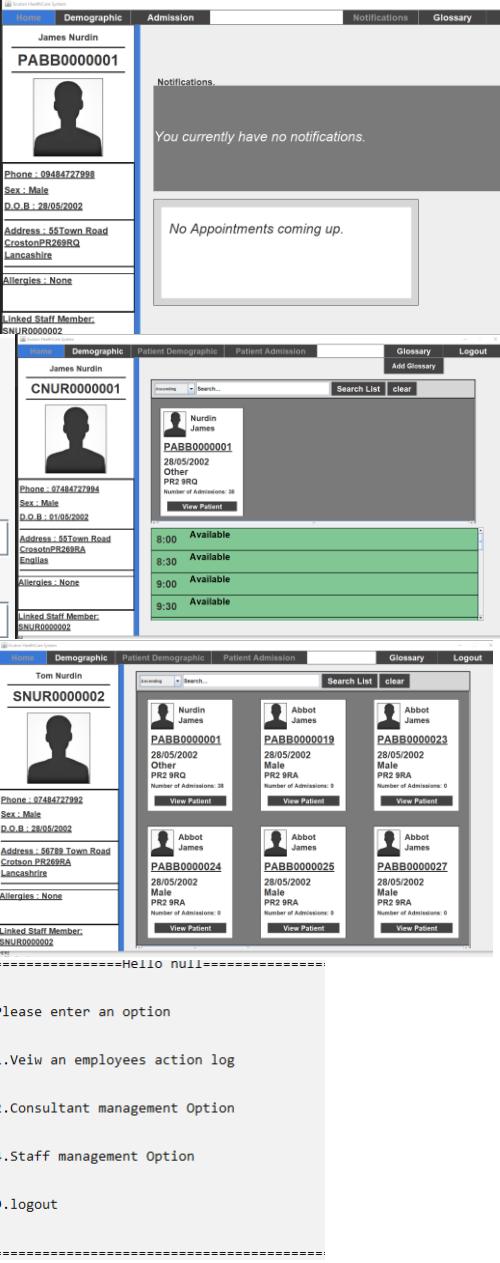
Test ID	6.1
Data Set	U1 P1/U2 P2(Typical)
Evidence	 <p>The screenshot shows a split-screen interface. On the left is a 'Login' page with fields for 'Patient ID' (PABB000001) and 'Password'. On the right is a 'Demographic' panel for a patient named James Abbot, with details like phone number (07484727992), sex (Male), date of birth (08/04/2003), address (55Euxton Read, Croston PR24 8RA, Lancashire), allergies (Test1 Test), and linked staff member (SNUR0000002). A large redacted area covers the rest of the demographic information.</p>
Actual Commentary	<p>As expected the test went on to perform as expected, before we discuss the process, I will confirm that the test was a success. When I went onto the system I was met with the login panel with the picture of Euxton hall in the background. After seeing the login panel I then attempted to enter the respectful fields of P1 and U1, when I pressed login my data was passed through into the validation methods checking that the input was suitable after this they were then checked that the password that I had entered was the same as the one the patient had in their file. As they were the same, no popups where created and I was brought to the patient's homepage. Because of this the test was successful.</p>
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test ID	6.211
Data Set	(Username) <Null>
Evidence	 <p>The screenshot shows a 'Login' page with two empty text input fields. A 'Message' dialog box is displayed, stating 'Invalid username, missing.' with an 'OK' button.</p>
Actual Commentary	<p>When I started the system I was met with the login panel for the user. Without entering any information whatsoever I then proceeded to press the login button in the box. Here the values where retrieved from the text fields and then passed into a validation method. After this happened the system checked that the fields had data in them by performing a presence check on the username. As the field was empty the function returned the boolean value false to the system. As a result the process of logging in was terminated and then I was kept at the login panel and was shown a popup informing myself of the error I had made. Because it has achieved what it was required to do we can call the test a success.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	6.212
Data Set	(Username) <Type>
Evidence	
Actual Commentary	<p>On starting the system I was greeted by the user login panel here I initially attempted to enter the character “!”. When this occurred as expected the system retrieved the text from the field and then performed a type test and as expected, the method returned false. After this a popup was generated showing that the field had an invalid character present. However while attempting to login after I was then met with a popup informing me that only letters were allowed in the box, this also terminated my request to login. Because an undesired output was made by the system we will reject the test unfortunately and call it a failure, the next course of action is to resolve the issue.</p>
Further actions /Enquiry	<p>The error was due to the fact the wrong validation method was used in the username validation section of the login were the username was validated for only strings rather than both strings and integers. As a result the fix is to correctly call the method for both strings and integers to be allowed. On testing it again the feature works as I was able to login. Because of this we can call the test a success and move onto the next.</p> <pre>validated=tempUser.typeValidationString(username); validated=tempUser.typeValidationStringOrInt(username);</pre>
Rectified	

Test ID	6.221
Data Set	(Password) <Null>
Evidence	Exception in thread "AWT-EventQueue-0" java.lang.NullPointerException
Actual Commentary	When I started the objective I was met with the login panel, here I attempted to enter the username only. After doing this I then pressed the login button. However unfortunately no process occurred and an exception was thrown to the command line. Because of this undesired output made by the system we will reject the test and call it a failure, the next course of action is to resolve the issue. Once it is fixed we then can retry to see if it is resolved.
Further actions /Enquiry	<p>The issue came about due to the fact that the validation methods were not in place yet, so when it came to checked the credentials to see if they matched what was found in file the system was attempting to compare a null value to a string. The fix was simple include the validation that was supposed to be testing on the system. As you can see I have added a presence and a length check to the string. When trying again as you can see the correct output had been made, because of this we can call the test now a success and now move onto the next test.</p> <pre>public boolean checkCredentials(String passwordDesired, String passwordEntered) { if(passwordEntered.equals(passwordDesired)==true) { return true; } JOptionPane.showMessageDialog(null, "Invalid Password."); return false; } public boolean checkCredentials(String passwordDesired, String passwordEntered) { boolean validated =userPatient.presenceValidation(passwordEntered); if(validated==false) { JOptionPane.showMessageDialog(null, "Missing Password."); return false; } validated=userPatient.lesserLengthValidation(passwordEntered, 25); if(validated==false) { JOptionPane.showMessageDialog(null, "Invalid Password, must be less than 26 characters."); return false; } if(passwordEntered.equals(passwordDesired)==true) { return true; } JOptionPane.showMessageDialog(null, "Invalid Password."); return false; }</pre> 
Rectified	

Test ID	6.222
Data Set	(Password) <Extreme>
Evidence	 <p>The screenshot shows a 'Login' page with two input fields. The first field contains 'PABB0000001'. The second field contains a password consisting of 26 capital letters 'A'. A message box titled 'Message' appears, stating 'Invalid Password, must be less than 26 characters.' with an 'OK' button. Below the message box is a 'Create Patient Account' button.</p>
Actual Commentary	<p>Here at the start of the proceed I was met with the login panel. The first thing I did was enter the username as normal, for the password I then as set out in the expectation entered the character "A" 26 times. After this I then pressed the login button, this retrieved the data from the fields then assigned them to variables which were passed through into the length check. As they exceeded the maximum length condoned by the method a boolean value of false was returned. As a result the process of logging in was terminated and then I was kept at the login panel and was shown a popup informing myself of the error I had made. Because it has achieved what it was required to do we can call the test a success.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	6.3
Data Set	U1(each entity)
Evidence	   
Actual Commentary	Here for each time I started the system I was presented with the login box each time with the correct components. For each main entity I proceeded to enter the correct information into the username and password fields of the system. After pressing the login button for each attempt I had each correct instance every time get their attributes retrieved from file and have the correct panel along with the corresponding components and data correctly generated. Because of this we can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

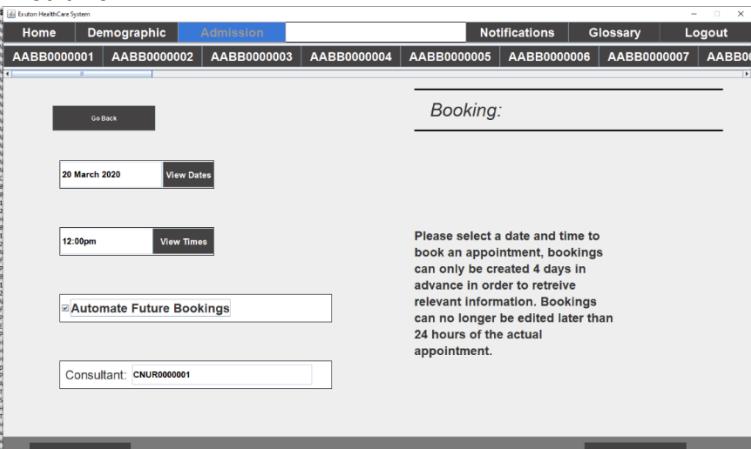
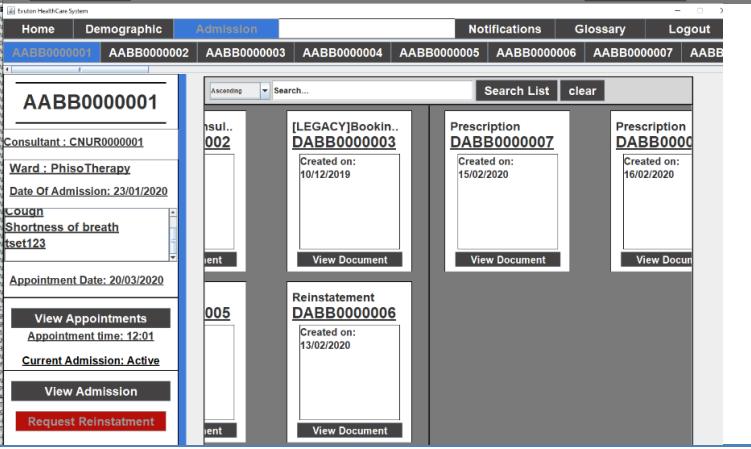
Test Plan 7, Objective No. 7, Display menu options

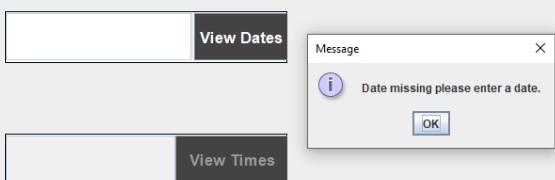
Test ID	Test Type	Purpose/Expected Output	Pass?
7	Functionality	<i>Test 7 is graphical and can't be subjected to quantifiable tests, because of this we will be unable to perform any type of functional or validation tests of any kind.</i>	See navigation tests for individual objectives

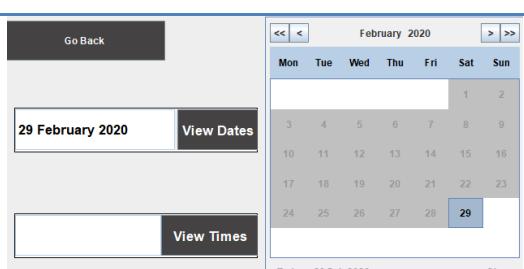
Test Plan 8, Objective No. 5, Booking a new appointment

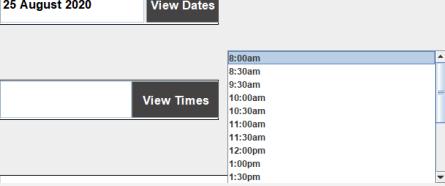
Test ID	Test Type	Purpose/Expected Output	Pass?
8.1	Functionality	When the user logs in they will proceed to the desired admission they want a booking for, they will then select the view appointments button, they should then be brought to the booking panel, Here they will fill in 3/4 fields, the room may or may not be editable depending on the user type (a patient should not be able to edit this, while employees can). Once the patient selects the date they want (any day after today's date + 4 days), a search will occur where the system will remove any times with that the consultant already has. It will then update the list of appointments, allowing for a time to be selected. Finally once the last date has been entered the system will write the booking to file and return the user to the admission panel.	
8.211	Validation (Date) <Range>	For the objective the user will start at the admission homepage and will select the booking panel for the admission. Once here they should initially attempt to enter a date that is in the past. What they should see is that the dates behind todays date have been vetoed and are unselectable, if this is the case then the feature for validation works and can allow the user to move onto the next test.	
8.212	Validation (Date) <Null>	Where the user starts the system they will navigate to the desired admission and then access the booking panel for it. Here the first thing the user should do is leave the date box empty. As a result the time box should then also remain disabled, after this the user should continue to fill in the rest of the fields. Once the remaining boxes contain data the user should press the create booking button. The system should then pass the information through to validation, before the date is parsed it should be checked that it is not null. As the input is the system should then return false to the create booking method. Here the system should then finally terminate the process of creating a booking and then inform the user of the error in the form of a popup.	
8.221	Validation (Time) <Null>	At the start when the user starts the system they will navigate to the desired admission and then access the booking panel for it. Once here they should select a valid date, the system should then proceed to pull all the correct times (see test 8.222 for this), the user should see a list of times able to be selected. Here the user should leave the field and fill in the rest of the panel. Once this is done the user should press the create booking button. The input should then be passed into a validation method where the field is passed into a presence check before being assigned. As the value is empty the system should then return false to the create booking method. Here the system should then finally terminate the process of creating a booking and then inform the user of the error in the form of a popup.	

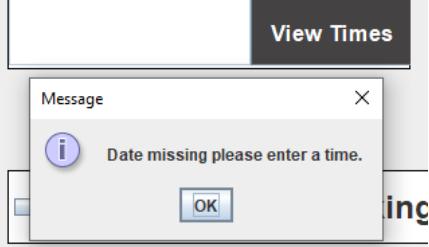
8.222	Validation (Time) <Range>	Here the user will select the desired admission and then locate the booking panel for the admission respectively. Once here they should select a valid date, the system should then proceed to pull all the correct times that have not been allocated by other patients for that day. This should occur by iterating through all the bookings and then remove the times when that booking instance has the same date. Once done the list should then be added to the combo box. For the test to be a success the list of times should not be the same as any other bookings of the same date in that consultants file.	
8.231	Validation (Room) <Null>	The user will start at their admission panel, here they will proceed to the booking panel for that admission. Once here they will then proceed to fill in all the other fields except the room box on the panel. After this the user should then press the create booking button, here the field should be passed into a presence validation method where the check sees if the input is null as data is empty, the system should then return false to the create booking method. Here the system should then finally terminate the process of creating a booking and then inform the user of the error in the form of a popup.	
8.232	Validation (Room) <Type>	Where the user starts the system they will navigate to the desired admission and then access the booking panel for it. Once at the panel the user should then proceed to enter all the data for the boxes. However for the room box the user should enter the character “!” into it. After this they should press the create booking button, here the data should all be validated, for the particular field the data should then be checked that only integers and strings have been entered. As neither have been the system should then return false to the create booking method. Here the system should then finally terminate the process of creating a booking and then inform the user of the error in the form of a popup.	
8.233	Validation (Room) <Extreme>	Finally the user will start of at the admission panel, here they will proceed to the desired admission's booking panel. Here the user will continue to enter the intended input to avoid any other validation popups occurring. When they get to the room field the user should then attempt to enter 26 characters of the letter “A”. After this they should proceed to press the create booking button. Here the system should then pass the field into a length checker for the input. As the length exceeds what is condoned the system should then return false to the create booking method. Here the system should then finally terminate the process of creating a booking and then inform the user of the error in the form of a popup.	
8.3	Navigation	At the start of the objective the user should be at the admission panel, after this the user should then press the view appointments button, once pressed the system should then add the booking panel to the stack and make it visible, along with this all the components and boxes should be initialised and in the correct place. As the booking is new the fields should be empty. When the user has entered the correct data the system should then create the booking (see test 8.1) after this the user should then be brought back to the admission homepage, long with the appointment panel being removed from the stack. Finally the contact box in the admission panel should now contain the new appointment to be viewed. The system should have a panel order as follows: admissionHomepagePanel - viewAppointmentPanel - admissionHomepagePanel	

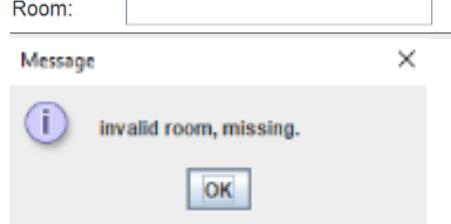
Test ID	8.1
Data Set	B1(Typical)
Evidence	<p>AABB0000001,CNUR0000001,9,PhisoTherapy,Fever@Cough@Shortness of DABB0000001@09/02/2020 19:59@Consultant Notes@TEST LETTER DELETE LEWWEL#WEWL,1,WEISUL PABB0000001,AABB0000001#AABB0000021#AABB0000023#AABB0000</p> <p>files before PABB0000001,AABB0000001#AABB0000021#AABB0000023#AABB0000001,12:01,20/03/2020,true,PENDING AABB0000001,CNUR0000001,9,PhisoTherapy,Fever@Cough@Shortness of DABB0000001,12:01,20/03/2020,true,PENDING</p> <p>Files after</p>  
Actual Commentary	When I loaded the admission I then proceeded to the view appointment panel, here I entered all the correct fields on the system as given in data set B1. After selecting the date the correct list of times were generated for the booking date. For the rest of the values I entered the correct values and then proceeded to press create booking. After this I was taken back to the admission home screen where in the contact bar I could see that the new booking had been generated for me. When I came to inspect the patient, and consultant files I could see that the system had correctly written them to the correct indexes. Because of this I can say the test was successful as it has created a booking correctly.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

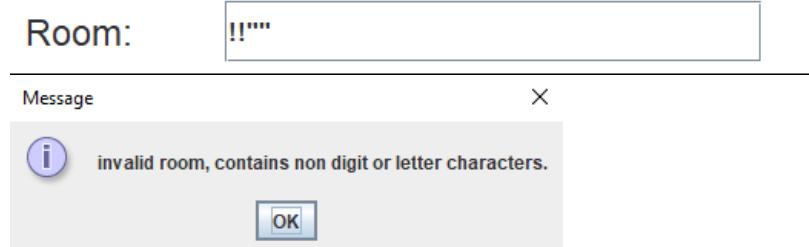
Test ID	8.211
Data Set	Validation (Date) <Null>
Evidence	
Actual Commentary	<p>For this objective when I loaded the system I then proceeded to enter the panel where I was met with all the components I needed to create a booking. Here I then proceeded to leave the booking date as null. As a result the time field was disabled from entering data, however this should not affect the test. After pressing create booking the system then passed the date field into a presence check. As the field was empty the method returned the boolean value of false. Because of this a popup appeared informing me of the null value. To add to this the process of creating a booking was terminated. As the test achieved everything I expected of it we can call the test a success.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	8.212
Data Set	Validation (Date) <Range>
Evidence	
Actual Commentary	<p>For this test when the user started the system, I navigated to the booking panel for the admission. Once here I then attempted to enter a date for the Date box. The first thing I attempted to do was to enter a date through the keyboard but the text field was unable to accept any sort of input. After this I then tried to enter a date in the past, however all the dates before the current date were greyed out indicating they were vetoed. Because I had no other way of inputting a date other than a valid one, I will call the test a success as the user is forced to enter valid dates only. As this the result we are looking for we can move on.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

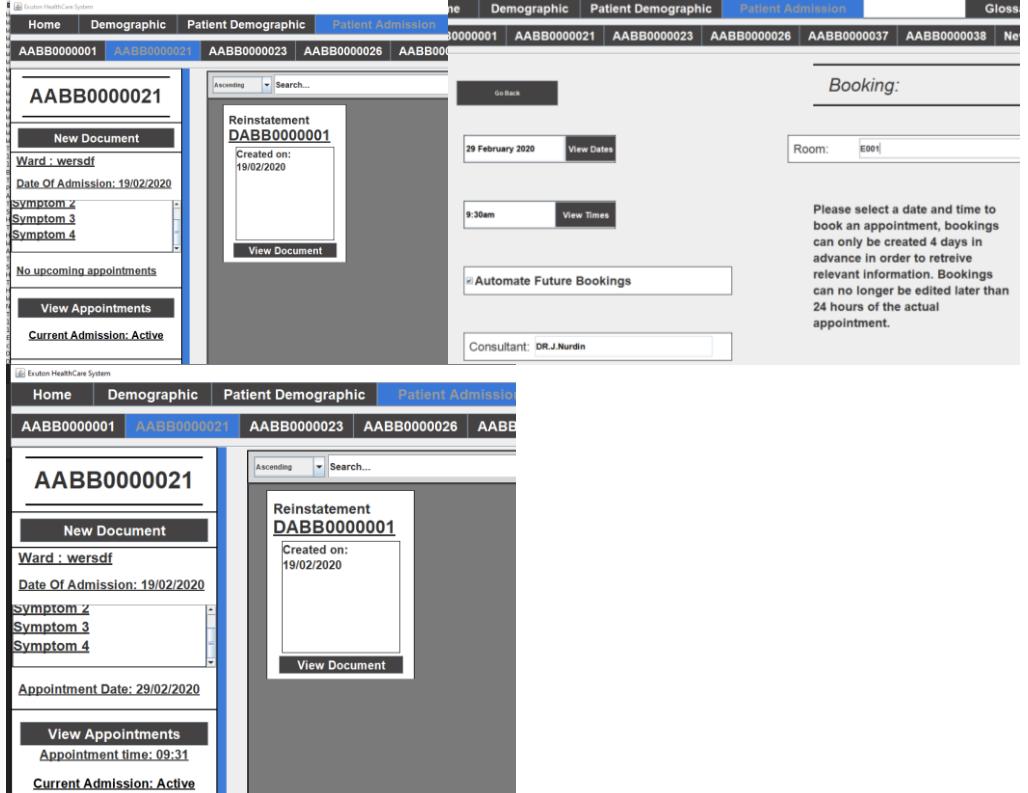
Test ID	8.221
Data Set	Validation (Time) <Range>
Evidence	<p>25 August 2020 View Dates</p> <p>View Times</p>  <pre> current bookingBABB0000001 DAt changedcurrent bookingBABB0000001 CNUR0000001,ENUR0000001,a,Nurdin,Jas tewwet#wetwet,1,wersdf PABB0000001,AABB0000001#AABB000002] BABB0000001,09:01,25/08/2020,false, </pre>
Actual Commentary	Moving on straight from test 8.212 we can immediately test this feature. After entering a correct date I then went instantly to the time drop down box where I could from command line that the search for similar appointments with the consultant had been made. The first thing I noticed proof the feature worked was that the time 9:00 was missing in the list. After looking in command line I saw that the booking BABB0000001 had caused the time to be removed. Because of this the last thing I did was consult the consultants file and behold the booking BABB0000001 had a date the same as our one and a time of 9:00. Because of this we can call the test a success due to the fact that the times were unable to be the same as any other current booking, this was the expected outcome.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	8.222
Data Set	Validation (Time) <Null>
Evidence	
Actual Commentary	On the start of this feature I navigated myself to the booking panel of the system. Once at the correct panel I then entered all the correct for all the fields excluding the time fields, for this field I left blank and proceeded to press the enter button. What happened next was that the field was then converted into a string where it was then passed into a presence validation method. As expected the system detected that the string was null and returned false. After this a popup was generated along with the termination of the current booking creation being terminated. Because the test performed everything was expected from it we can call it a success and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	8.231
Data Set	Validation (Room) <Null>
Evidence	<p>Room: <input type="text"/></p> <p>Message X</p> 
Actual Commentary	Initially I was on the admission panel after navigating to the appointment panel I then entered as much information as I could. However without entering any information whatsoever for the room I then proceeded to press the create account button in the box. Here the values were retrieved from the text fields and then passed into a presence validation method. After this happened the system checked that the fields had data in them by performing a presence check on the room. As the field was empty the function returned the boolean value false to the system. As a result the process of creating a booking was terminated and then I was kept at the appointment panel and was shown a popup informing myself of the error I had made. Because it has achieved what it was required to do we can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

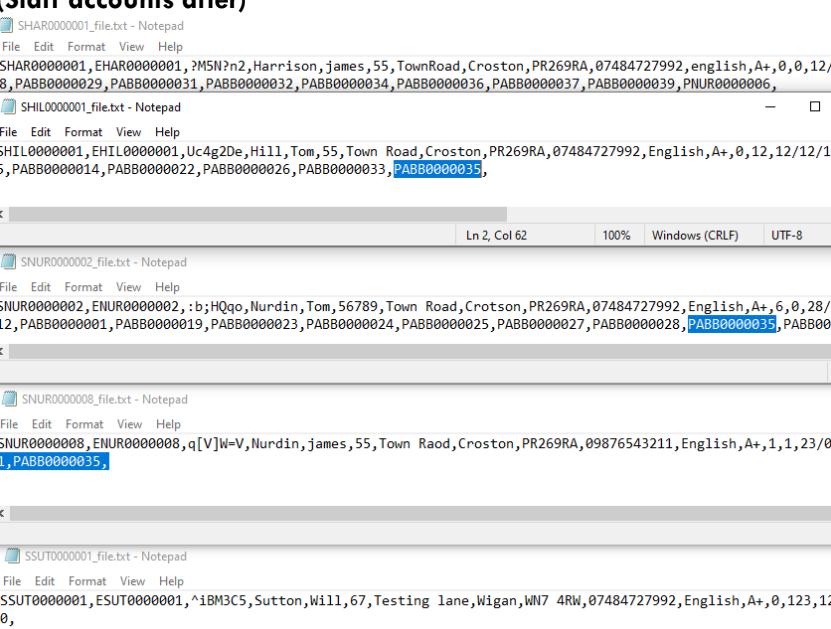
Test ID	8.232
Data Set	Validation (Room) <Type>
Evidence	<p>Room: <input type="text" value="!\"/></p> <p>Message X</p> 
Actual Commentary	For this test when the user started the system, I navigated to the booking panel for the admission. After entering all the other fields correctly I was met with the field for the room. After entering the characters “ !” into the text field I then proceeded to press the create booking button. After this the field was passed into a type validation method, in the method the string was checked to see if the field only contained strings and integers. However as it contained neither of them the method returned false. Because of this the system then generated a popup informing the user that the field contained erroneous data and then terminated the generation of the booking. Because it performed all that was expected from it we can call the test a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

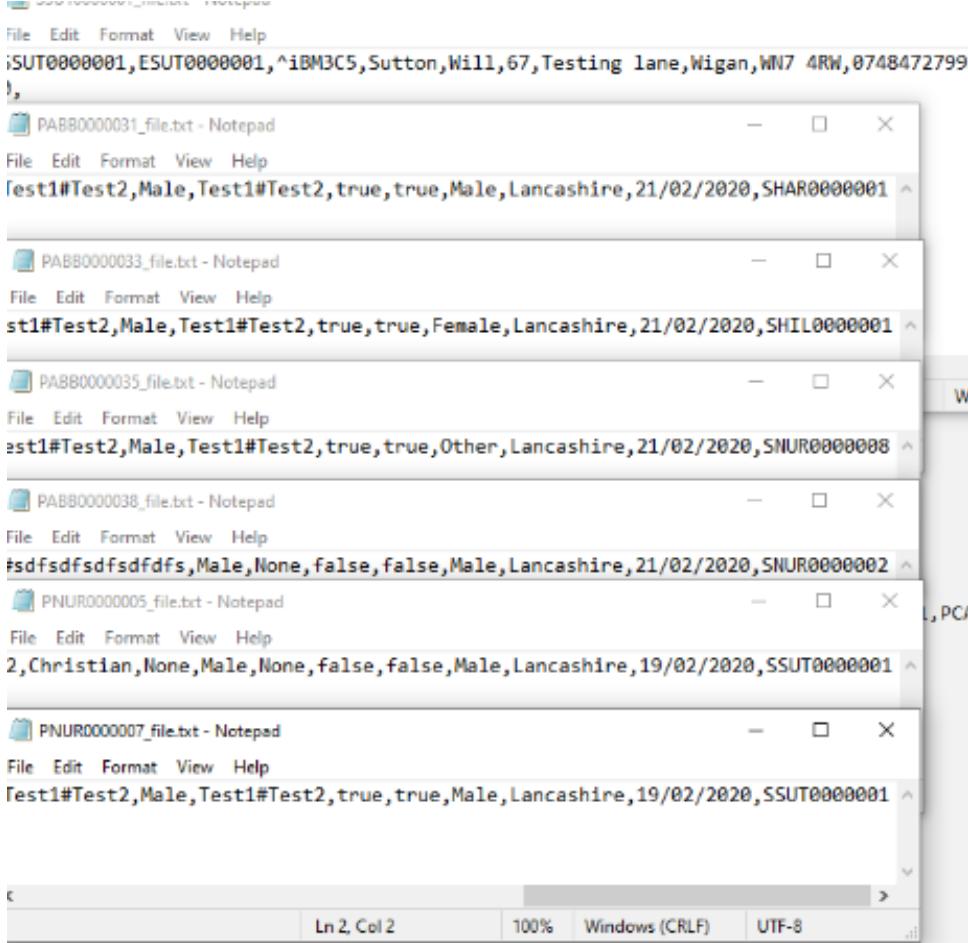
Test ID	8.233
Data Set	Validation (Room) <Extreme>
Evidence	<p>Room: <input type="text" value="AAAAAAAAAAAAAAAAAAAAA.....AAAAA"/></p> 
Actual Commentary	On the start of this feature I navigated myself to the booking panel of the system. After this we then proceeded to fill out the components as normal, however after reaching the room fields I then attempted to enter at least 26 characters of the letter "A". After this I then proceeded to create the booking by pressing the create booking button. When it was pressed the field was then passed into the length validation method, however as the length exceeded the allowed limit of 25 characters the boolean value of false was returned. After this the system then generated a popup informing the user of the issue along with terminating the process of creating a booking.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	8.3
Data Set	N/A
Evidence	 <p>The evidence consists of two screenshots of the Exton HealthCare System's Patient Admission module. Both screenshots show a booking panel overlaid on the admission screen. In the top screenshot, the patient ID is ABB000001, and the booking details include a date of 29 February 2020 at 9:30am, room E001, and consultant DR.J.Nurdin. A note states: 'Please select a date and time to book an appointment, bookings can only be created 4 days in advance in order to retrieve relevant information. Bookings can no longer be edited later than 24 hours of the actual appointment.' In the bottom screenshot, the patient ID is ABB0000021, and the booking details are identical. Both screenshots show a 'View Document' button next to the booking entry.</p>
Actual Commentary	<p>Initially I was at the admission panel for the admission I wanted to create a booking for. Here I then proceeded to get to the booking panel by pressing the view appointments button. After pressing this I was navigated to the booking panel where all the components had correctly been generated along with the panel was now viewable. Following this I then went onto entering all the correct information into the fields. After pressing create booking the instance was then successfully generated (see test 8.1), proceeding this I was moved back to the admission panel where I could see that the contact bar now contained the new booking information. Because of this I can call this test a success and move on.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

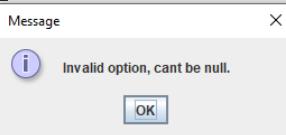
Test Plan 9, Objective No. 9, Archive employees

Test ID	Test Type	Purpose/Expected Output	Pass?
9.11	Functionality (Staff)	<p>Here as this process is very large and requires a lot of processes, method calling and file writing I will need to slowly go through each step on the system. While slightly different for each employee type the process is practically identical in how it works. Despite this we will consider each entity its own test. When I launch the system I will log in as management and then reach the system to amend staff on the system. Here I will proceed to archive SSUT0000001, what should happen is that:</p> <p>First it will load all the staff on the system and show the user their active statuses</p> <p><i>I will enter the employee I want</i></p> <p>The system should then determine if the account is eligible to be archived</p> <p>The system should then collect all the staff accounts that are active</p> <p>The desired account gets their patients split up among the staff</p> <p>Each patient should then correctly be inserted into the correct location for the staff</p> <p>Then the number of patients for the staff should increment</p> <p>The process repeats for any remaining patients</p> <p>Finally the account gets all the patient's in their file removed</p> <p>The line gets replaced with a zero</p> <p>The archived status gets set to true</p> <p>Finally the account should be written to file</p>	Rectified
9.12	Functionality (Consultant)	<p>As this process is much easier to describe hopefully it won't need any issues to fix as in comparison it requires much less processing.</p> <p>First it should load all the consultants on the system and show the user their active status</p> <p><i>I will enter the consultant I want</i></p> <p>The system should then determine if the account is eligible to be archived</p> <p>The system should then proceed to archive the consultant</p> <p>The action is split into three tasks:</p> <p>Any patient's admissions get their consultant name set to PENDING</p> <p>If the patient's admission had a booking it would be deleted on both sides</p> <p>Finally the consultants file gets updated to reflect the changes</p>	
9.21	Validation (EmployeeID) <Null>	<p>For this test when the method is initially called the system will request that they enter an EmployeeID, here the user should ignore the request and proceed to press enter anyway. When they do this the input should then be passed into a validation presence check. As the field is null then the system should return false and keep the user inside the while loop along with generating a popup window saying that the field was null.</p>	Rectified
9.22	Validation (EmployeeID) <Lookup>	<p>When the user starts the objective the system should request to the user that they enter an EmployeeID, here the user should attempt an invalid value. When this occurs the item should pass the validation methods and should then be searched for however as it doesn't exist a popup should occur along with the user being kept back in the while loop.</p>	
9.3	Navigation	<p>As the interface for this objective is text based the user is forced through different "menus" and so we don't need to test them.</p>	

Test ID	9.11
Data	E1(EmployeID only)
Evidence	<p>Before (desired staff account, along with the patient accounts)</p> <pre>SSUT000001,ESUT000001,^iBM3C5,Sutton,Will,67,Testing lane,Wigan,WN7 4RW,074846,PABB000031,PABB000033,PABB000035,PABB000038,PNUR000005,PNUR000007,</pre>  <p>(Staff accounts after)</p> 

	(Patient accounts after)
	 <p>The screenshot shows seven Notepad windows stacked vertically, each displaying a different patient record. The records are as follows:</p> <ul style="list-style-type: none"> PAB000001_file.txt: iSUT000001,ESUT000001,^iBM3C5,Sutton,Will,67,Testing lane,Wigan,WN7 4RW,0748472799 PABB000031_file.txt: Test1#Test2,Male,Test1#Test2,true,true,Male,Lancashire,21/02/2020,SHAR000001 PABB000033_file.txt: st1#Test2,Male,Test1#Test2,true,true,Female,Lancashire,21/02/2020,SHIL000001 PABB000035_file.txt: ast1#Test2,Male,Test1#Test2,true,true,Other,Lancashire,21/02/2020,SNUR000008 PABB000038_file.txt: fsdfsdfsdfsdfs,Male,None,false,false,Male,Lancashire,21/02/2020,SNUR000002 PNUR000005_file.txt: 2,Christian,None,Male,None,false,false,Male,Lancashire,19/02/2020,SSUT000001 PNUR000007_file.txt: Test1#Test2,Male,Test1#Test2,true,true,Male,Lancashire,19/02/2020,SSUT000001
Actual Commentary	<p>Before I go into detail, to sum up the test failed for two important reasons:</p> <ol style="list-style-type: none"> 1. An archived staff account received new patients (they are inactive this shouldn't occur) 2. Some of the old patient's still read they had the old staff account we archived <p>When I logged in I followed what was said in the expectation, I choose the option to archive the staff accounts, the system returned the list of staff along with their active status I then proceeded to enter the account I wanted to, it then went on to archive the staff. After running and returning me home, I expected it had worked (no errors were thrown), and on inspection of the staff SSUT000001 it was empty, however as I saw in the other staff accounts it appeared that inactive accounts had received the patients, then even worse when checking the patient's it also showed that the last two patient's weren't updated. Because of this I have to fail the test.</p>

Test ID	2.233
Data Set	<Extreme> “A X26”
Evidence	<p>Please enter your symptoms below.</p> <p>AAAAAAAAAAAAAAAAAAAAAAA</p> <p>Symptom 2</p> <p>Symptom 3</p> <p>Symptom 4</p>
Actual Commentary	<p>With the next test we entered all the normal information onto the system, to add to this to check the button the fields each line turned back selected a</p> <pre>int insideCounter= 0;//counter to place staff that are active into the array Staff[] arrayOfnonArchivedStaff = new Staff[numberOfStaffNotArchived-1];//the minus one is for(int indexcounter1 =0;indexcounter1<listOfStaff.length;indexcounter1++) { //here we are committing the staff which are archived and the account we wish to archive if(indexOfStaff!=indexcounter1)&&(listOfStaff[indexcounter1].archived==false) { arrayOfnonArchivedStaff[insideCounter]=listOfStaff[indexcounter1];//add to the account System.out.println(arrayOfnonArchivedStaff[insideCounter].staffID+" Has been added"); insideCounter++; } } archiveStaff(staffToAmend,arrayOfnonArchivedStaff); //calls method which updates entire sys</pre>
Further actions /Enquiry	N/A
Rectified	<p>function (it was a soft copy any amendments made to one index would occur to other indexes also) as I had worked on the method for more than several hours and I forgot to not use it, as a result I had it used to change the list of patients, as a result the patients instances where being copied to other instances in the array, so when it came to writing them it would write the same patient and not use the old one (hence we can see one patient three times and some never)</p> <pre>listOfNewPatients=Arrays.copyOfRange(listOfPatients, startingIndexForPatientArray, startingIndexForPatientArray+numberOfPatientsToMove);</pre> <p>Fix:</p> <p>The fix is much simpler and more elegant what we do is we use the same counter and just have it set the values for the index of the array as it loops through for the array of patients, it is much easier to understand from the image but this resolved the issue.</p> <pre>System.out.println("staff "+(i+1)+" has these patients: "); Patient[] listOfNewPatients = new Patient[numberOfPatientsToMove]; for(int insideCounter = 0;insideCounter<numberOfPatientsToMove;insideCounter++) { listOfNewPatients[insideCounter]=listOfPatients[startingIndexForPatientArray]; //System.out.println(listOfNewPatients[insideCounter].patientID); startingIndexForPatientArray++; }</pre>
Rectified	

Test ID	9.21
Data Set	Validation (EmployeeID) <Null>
Evidence	<pre>===== Change active status of Consultants===== All Consultant accounts: CNUR0000001,Nurdin,James ACTIVE CNUR0000003,Nurdin,true ARCHIVED CNUR0000009,Nurdin,James ACTIVE CNUR0000010,Nurdin,James ACTIVE CTEM0000001,Temp,James ACTIVE CTOM0000001,Tomkins,true ARCHIVED Please enter the consultant accounts ID (B) Go back ===== Exception in thread "AWT-EventQueue-0" java.lang.StringIndexOutOfBoundsException: String index out of range: 0 at java.base/java.lang.StringLatin1.charAt(StringLatin1.java:47) at java.base/java.lang.String.charAt(String.java:693) at Management.archiveRearchiveConsultant(Management.java:1727) at Management.createHomepage(Management.java:82) at Gui.setUpManagementObj(Gui.java:7878) at Gui\$WindowEnterListener.keyPressed(Gui.java:11492)</pre>
Actual Commentary	When I started the method I was greeted with the list of staff, the first thing I did was enter no values and pressed the enter key. Unfortunately just after pressing enter an exception was thrown at line 1727, because of this I will have to call the test a failure and try and resolve it immediately.
Further actions /Enquiry	<p>The error occurred due to the fact that the method had no validation method whatsoever for the field. So after the user had left the field blank the system immediately went straight to finding the first character in the string, however as it was null this caused the error to be thrown. The fix is simple all I have to do here is add a presence check and if it fails to pass it (the field is null) a popup appears and then cause the loop to iterate early. As you can see below it works as intended, because of this we can now call the test a success and move on.</p> <pre>boolean validated =tempInstance.presenceValidation(desiredConsultantID); if(validated==false) { JOptionPane.showMessageDialog(null, "Invalid option, cant be null."); continue; } 1 ===== Change active status of Consultants===== All Consultant accounts: CNUR0000001,Nurdin,James ACTIVE CNUR0000003,Nurdin,true ARCHIVED CNUR0000009,Nurdin,James ACTIVE CNUR0000010,Nurdin,James ACTIVE CTEM0000001,Temp,James ACTIVE CTOM0000001,Tomkins,true ARCHIVED Please enter the consultant accounts ID (B) Go back ===== </pre>
Rectified	

Test ID	9.22
Data Set	Validation (EmployeeID) <Lookup>
Evidence	<pre>===== Change active status of Consultants=====</pre> <p>All Consultant accounts:</p> <pre>CNUR0000001,Nurdin,James ACTIVE CNUR0000003,Nurdin,true ARCHIVED CNUR0000009,Nurdin,James ACTIVE CNUR0000010,Nurdin,James ACTIVE CTEM0000001,Temp,James ACTIVE CTOM0000001,Tomkins,true ARCHIVED</pre> <p>Please enter the consultant accounts ID</p> <p>(B) Go back</p> <pre>===== As</pre> 
Actual Commentary	After fixing the issue with text 9.21 I was a little wary about this test seeing whether it would work or not. However when I started the method I was greeted with the same list of employees this time entered an invalid item not in the list, as expected the item was passed straight through the validation method with no problems, after this the linear search occurred with the items in the list. As it didn't appear in the list no value was returned and as expected a popup appeared along with the recalling of the while loop, because of this we can call the test a success and move on.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test Plan 10, Objective No. 10, Sort for employees

Test ID	Test Type	Purpose/Expected Output	Pass?
10.1	Functionality	While a minor feature this becomes important to features used in objectives 12 as we need to rearrange the combined consultant and staff lists. What should happen is that the user should start the system and initiate a feature which uses this feature (in this case we are using the action log system). From this the system will load all the consultants and fetch their employeeIDs, the same should occur for the staff also. Once this occurs a recursive sort (quick sort will occur on the data). What should happen is that for each recursive call a pivot (the middle value) should be selected, after this any items that should go to the left of the pivot that are on the right are moved to left and vice versa for the opposite side from this each side is checked to see if it is in order (we only have one value left) if not that side is theoretically called back into the method as a new array where the pivot value is now in the correct position. This keeps occurring until all the values are in order. Once this has occurred the call method should be unreachable and the list is returned, where all the employees are in alphabetical descending order.	
10.2	Validation	As the input is only based on selecting an option from a combo box we can skip over this as no invalid input can be generated for this objective.	Not performed
10.3	Navigation	As the feature is for the backend utility of the next test there is no graphical navigation needed for the objective and because of this like test 10.2 we can move onto the next test and skip this one.	Not performed

Test ID	10.1	
Data	E1(EmployeID only)	
Evidence	<p>ENUR0000001 ENUR0000003 ENUR0000009 ETOM0000001 EHAR0000001 EHIL0000001 ENUR0000002 ENUR0000008 ESUT0000001</p> <p>ETOM0000001 ENUR0000009 ENUR0000003 ENUR0000002 ENUR0000008 ESUT0000001</p> <p>ENUR0000003 ENUR0000009 ETOM0000001 ENUR0000001 EHIL0000001 ENUR0000002 ENUR0000008 ESUT0000001</p> <p>ENUR0000002 ENUR0000003</p> <p>ENUR0000009 ENUR0000008</p> <p>===== All employees on the system =====</p> <p>EHAR0000001,SHAR000001 EHIL0000001,SHIL000001 ENUR0000001,CNUR000001 ENUR0000002,SNUR000002 ENUR0000003,CNUR000003 ENUR0000008,SNUR000008 ENUR0000009,CNUR000009 ESUT0000001,SSUT000001 ETOM0000001,CTOM000001</p> <pre> System.out.println(ArrayToSort[loopCounter][0]+"""); } System.out.println(""); String[] pivotArray;//array that holds both the employeeID and EntityID value that is in correct order String[] tempBuffer;//array that holds both the employeeID and EntityID for swapping int tempHigh; int tempLow; tempHigh = indexHigh; tempLow = indexLow; pivotArray = ArrayToSort[(indexLow+indexHigh)/2]; while(tempLow<=tempHigh) { while((ArrayToSort[tempLow][0].compareToIgnoreCase(pivotArray[0])<0) && (tempLow<indexHigh)) { tempLow++; } while((ArrayToSort[tempHigh][0].compareToIgnoreCase(pivotArray[0])>0) && (tempHigh>indexLow)) { tempHigh--; } //finds the next indexes to swap over if(tempLow<=tempHigh) { tempBuffer = ArrayToSort[tempLow]; ArrayToSort[tempLow] = ArrayToSort[tempHigh]; ArrayToSort[tempHigh] = tempBuffer; tempLow++; tempHigh--; } } if(indexLow<tempHigh) { quickSort(tempHigh,indexLow,ArrayToSort); } //sorts all the parts to the left before moving onto the right if(indexHigh>tempLow) { quickSort(indexHigh,tempLow,ArrayToSort); } //at this point the array would be in an order otherwise the recursive natrue would have occurred return ArrayToSort; } </pre>	

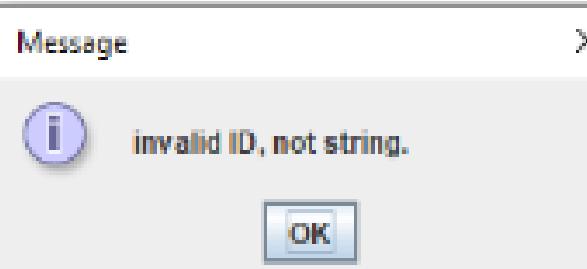
Actual Commentary	What happens is exactly what was explained in the expectation. As the method is standardised I don't need to explain myself too much again. When I load the system it brings all the items into a list with all the second items, it then performs a quick sort which returns all the items back together into a list now ordered by alphabetical order. Because it achieved what we required
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test Plan 11, Objective No. 11, Search for employees

Test ID	Test Type	Purpose/Expected Output	Pass?
11.1	Functionality	While on its own a minor feature, this becomes important to features used in objectives 9 and 12. What should happen is that the user should start the system and initiate a feature which uses this feature (in this case we are using the action log system), then after objective 10 has ran we should have a list of items in the correct order. Here we should enter the desired item and then the program should run, as it runs it should utilise a divide and conquer technique to reduce the number of items with a big rating of $O(\log_2 n)$ as we see it execute we will see the algorithm compare the midpoint of the list, with the list of items. The binary search works due to the fact our list of items are in order, this prevents any items from being excluded which are needed. At the end the method will return the item.	
11.21	Validation <Null>	For this test when the user starts the objective they should be presented a list of employees to select from. Here the user should then attempt to leave the field empty and then proceed to press enter, after they do this the item should then be passed into a presence validation method. As the value is null the return value of false should be returned back to the user. Finally the process of searching for an item should stop and then the user should be displayed a popup informing them of the error.	
11.22	Validation <Type>	Here when the user starts the objective they should be shown a list of employees to choose from. The user should then attempt to enter the character "!" directly into the field empty and then proceed to press enter, after they do this the item should then be passed into a type validation method. As the value is not allowed the return value of false should be returned back to the user. Finally the process of searching for an item should stop and then the user should be displayed a popup informing them of the erroneous input.	
11.3	Navigation	There is no major visual navigation used for this feature because of this we are not required to test it for navigation. We can start testing the now for the objective.	Not performed

Test ID	11.1
Data	“ENURO0000008”
Evidence	<pre> outerSearchl: //declares a label will be used to force the code to terminate if do { System.out.println(""); midPoint = ((startPoint+endPoint)/2); //updates the midpoint by finding the System.out.println("Midpoint "+midPoint); //statement used to check if midpoint is at end(see dev testing 17/01/20 f if(midPoint== length)//selection determining if the value is at the end of { System.out.println("Item occurs at the end"); } patientID = array[midPoint].substring(0,11); //sets the index of the desired System.out.println(patientID + " ID");//check variable if(patientID.equals(patientIDDesired))//if the surnames are the same { } else if((midPoint-1)>=0) { if(patientIDDesired.compareToIgnoreCase(array[midPoint].substring(0,11))<0) { System.out.println("Item occurs before midpoint"); //check variable endPoint = midPoint -1; //moves the endpoint to better locate the posit } else if(midPoint== 0)//selection determining if the value is at the start o { if(patientIDDesired.compareToIgnoreCase(array[0].substring(0,11))<0)//s { System.out.println("Item occurs at the start"); //check variable position = 0; //assigns position to first index //System.out.println("Option 3"); //check variable items[i]=i; //if the surname is at the end of the system and not the break outerSearchl; //exits search with all the items needed } } if(patientIDDesired.compareToIgnoreCase(patientID)<0)//selection determinin { System.out.println("Item occurs before midpoint"); //check variable endPoint = midPoint -1; //moves the endpoint to better locate the posit } else if(patientIDDesired.compareToIgnoreCase(patientID)>0)//selection determinin { System.out.println("Item occurs after midpoint"); //check variable startPoint = midPoint +1; //moves the startpoint to better locate the po } } }while((endPoint>= startPoint)); //termination condition when satisfied } catch(Exception exc) { } </pre> <p>ENUR0000008 Midpoint 4 ENUR0000003ID Item occurs after midpoint Midpoint 7 ESUT0000001ID Item occurs before midpoint Midpoint 5 ENUR0000008ID Item found Index of employee found at 5</p>
Actual Commentary	As expected the algorithm worked to exact definitions, set out in the expectations, to try and test the search more thoroughly the desired item was just after the midpoint in order to create more comparisons, regardless the item was found. Now we have it working for a valid item, we will test it for an erroneous value. Despite this the test was a success. As expected a binary search was successfully conducted on the data of the system. Where the middle item of the list was initially searched after conducting a divide and conquer technique to isolate the correct value. While a little unnecessary to show proof the source code has already been provided to show how the system deals with each case.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test ID	11.21
Data Set	Validation (EmployeeID) <Null>
Evidence	<pre>EHAR000001,SHAR000001 EHTL000001,SHIL000001 ENUR000001,CNUR000001 ENUR000002,SNUR000002 ENUR000003,CNUR000003 ENUR000008,SNUR000008 ENUR000009,CNUR000009 ESUT000001,SSUT000001 ETOM000001,CTOM000001</pre> 
Actual Commentary	When I started the method I was initially presented with all the employees on the system, here I then proceeded to leave the field empty and pressed enter after doing this the value would have been passed into the validation method to be examined. As the value was null the boolean value false was returned to the user. Because of this the system cancelled the search and then proceeded to generate a popup informing me that the input was missing. Because of this I will accept the test as it achieved the desired output by preventing the search from being conducted.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test ID	11.22
Data Set	Validation (EmployeeID) <Type>
Evidence	<pre>EHAR000001,SHAR000001 EHTL000001,SHIL000001 ENUR000001,CNUR000001 ENUR000002,SNUR000002 ENUR000003,CNUR000003 ENUR000008,SNUR000008 ENUR000009,CNUR000009 ESUT000001,SSUT000001 ETOM000001,CTOM000001</pre> 
Actual Commentary	When I started the method I was initially presented with all the employees on the system, here I then proceeded to enter an erroneous data value into the system with the character "!", then I went and pressed enter after doing this then the value would have been passed into the validation method to be examined. As the value contained an illegal value the boolean value false was returned to the user. Because of this the system cancelled the search and then proceeded to generate a popup informing me that the input was not a string. Because of this I will accept the test as it achieved the desired output by preventing the search from being conducted.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test Plan 12, Objective No. 12, View an employee's transaction log

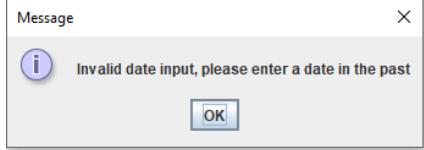
Test ID	Test Type	Purpose/Expected Output	Pass?
12.1	Functionality	After entering a series of inputs (see tests 10.1, 11.1, 12.2) the user should have their information pulled to the system (see test 13.A1) now we should see a frame be initialised and then projected to the user. When this also occurs the system should also initialise a model to contain the data, here the actions desired by the user (between the given time spans will then be passed into the model). When the frame is loaded the system will then display the window to the user containing all the needed data. Finally the following should occur: the call method should end (this avoids having to mess around with errors involving keeping the call method running), a window listener is attached to the window when closed the system will relaunch and load the management home menu when the user closes the window	
12.21	Validation	No validation is needed for this objective due to the fact all the validation is handled in objectives 11 and 13 respectively. Because of this we can skip this objective and proceed onto the next test.	Not performed
12.3	Navigation	Similar to test 12.21 this test doesn't need to occur due to the fact that the navigation of the system occurs concurrently through objectives 10 through 13 and because of this the tests have already been discussed. Because of this we can move onto the next test.	Not performed

Test ID	12.1																																				
Data	(Typical)																																				
Evidence	<p>Please enter the start date (IN FORMAT DD/MM/YYYY) you want to see their actions: First instance of any a 24/12/2002 chosen start date is 24/12/2002 Please enter the end date (IN FORMAT DD/MM/YYYY) you want to see their actions or press T for today's date T</p> <table border="1"> <thead> <tr> <th>Current Action</th> <th>Patient</th> <th>Admission</th> <th></th> </tr> </thead> <tbody> <tr> <td>testAction</td> <td>PatientID</td> <td>AdmissionID</td> <td>2</td> </tr> </tbody> </table> <p>(This image has word warping on to aid readability)</p> <table border="1"> <thead> <tr> <th>Date action occurred</th> <th>New Data</th> <th>Old Data</th> </tr> </thead> <tbody> <tr> <td>24/12/2002 09:33</td> <td>newDate</td> <td>oldDate</td> </tr> <tr> <td>24/12/2003 09:33</td> <td>newDate</td> <td>oldDate</td> </tr> <tr> <td>24/12/2004 09:33</td> <td>newDate</td> <td>oldDate</td> </tr> <tr> <td>24/12/2005 09:33</td> <td>newDate</td> <td>oldDate</td> </tr> </tbody> </table> <pre> SHAR0000001,SHAR0000001~testAction#24/12/2002 09:33#newDate#oldDate#PatientID#AdmissionID@testAction#24/ 09:33#newDate#oldDate#PatientID#AdmissionID@testAction#24/12/2004 09:33#newDate#oldDate#PatientID#AdmissionID@testAction#24/12/2005 09:33#newDate#oldDate#PatientID#Admiss SHIL0000001,SHIL0000001~ </pre>		Current Action	Patient	Admission		testAction	PatientID	AdmissionID	2	Date action occurred	New Data	Old Data	24/12/2002 09:33	newDate	oldDate	24/12/2003 09:33	newDate	oldDate	24/12/2004 09:33	newDate	oldDate	24/12/2005 09:33	newDate	oldDate												
Current Action	Patient	Admission																																			
testAction	PatientID	AdmissionID	2																																		
testAction	PatientID	AdmissionID	2																																		
testAction	PatientID	AdmissionID	2																																		
testAction	PatientID	AdmissionID	2																																		
Date action occurred	New Data	Old Data																																			
24/12/2002 09:33	newDate	oldDate																																			
24/12/2003 09:33	newDate	oldDate																																			
24/12/2004 09:33	newDate	oldDate																																			
24/12/2005 09:33	newDate	oldDate																																			
Actual Commentary	As expected the test was a success, after entering the correct fields the system pulls the correct items. Next it loaded the items from file and then attached them to a file. After this a JWindow was initialised and then displayed containing the table along with the model with the data attached. Along with this the system had finished running and the Console was now waiting for the window to close. When it did it called the management home interface. Because everything worked correctly I can say the test was a success.																																				
Further actions /Enquiry	As no errors have occurred we can move onto the next test.																																				
Rectified	N/A																																				

Test Plan 13A, Objective No. 13A, Read transaction log from file

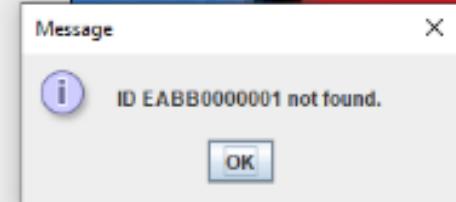
Test ID	Test Type	Purpose/Expected Output	Pass?
13.A1	Functionality	After the user has entered the employees they want to view the action log of the system will then read from file all their actions, it will then (using its sequential order) use the first index as show the earliest date an action has occurred. Here it will ask the user to enter a date after this time period (but before the current date). Once done it will ask for a date after this time period (again up until the current date). Finally it will then pull all the actions that meet the requirements and then will pass the values onto the output method (see test 12.1). From a testing point of view we should see that the correct number of actions are passed through to the system.	
13.A2	Validation (Date) <Range>	For this test after being presented with a list of dates the user should attempt to first enter a date that is in the past, this date should be parsed and then compared to the initial start date. As it is outside the loop should kept going an output should be shown informing that the date was too far in the past. After this they should then enter an appropriate date, this will cause the next request to be generated. Here the system should ask the user to enter the upper bound for the dates. Here the user should then attempt to enter a date in the future past todays date. Here this error should be recognised returning a false boolean. Finally for the last time an output should be generated consisting of a popup informing the user that the date was too far ahead.	
13.A3	Navigation	As this is a non-graphical test and no visual cues need to be generated we can just skip this test plan and move onto the first test of this objective	Not performed

Test ID	13.A1
Data Set	two dates in valid range(24/12/2002 and 22/02/2020)
Evidence	<pre>The current employee has 4 Actions associated Please enter the start date (IN FORMAT DD/MM/YYYY) you want to see their actions: First instance of any activity is 24/12/2002 9:33 24/12/2002 chosen start date is 24/12/2002 Please enter the end date (IN FORMAT DD/MM/YYYY) you want to see their actions or press T for today's date T Most recent date chosen action 0 occurred in time frame action 1 occurred in time frame action 2 occurred in time frame action 3 occurred in time frame end of array reached Tue Dec 24 09:33:00 GMT 2002 Wed Dec 24 09:33:00 GMT 2003 Fri Dec 24 09:33:00 GMT 2004 Sat Dec 24 09:33:00 GMT 2005</pre>
Actual Commentary	As expected when the user starts the test the user will be greeted by two questions the first asking for the initial date, once I had entered that, I received visual feedback saying the date I selected. After this I was shown the second request this time asking for the end date. Again I entered another valid date again the system acknowledged the date by confirming the values I had entered. Next the system looped through all the actions the user had and then checked whether they lied within the correct time frame. As you can see it went through all the values and then indicated then the end had been reached. Finally the array of new actions was outputted to the user. Because of this we can confirm that the test was a success.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test ID	13.A2
Data Set	Validation (EmployeeID) <Range>
Evidence	<p>Please enter the start date (IN FORMAT DD/MM/YYYY) you want to see their actions: First instance of any activity is 24/12/2002 9:33 24/11/2002</p>  <p>Please enter the end date (IN FORMAT DD/MM/YYYY) you want to see their actions or press T for today's date 01/04/2020</p> 
Actual Commentary	<p>When I started the method I was initially presented with all the employees on the system, here I then proceeded to continue to the next section of the feature. Once I had passed the section I was greeted by a request to enter a date after the date 24/12/2002. Here entered the date one month behind and pressed, here the date was passed into the comparison method where it was checked to see if it is valid. As the value was not in the correct time period the boolean value false was returned to the user. Because of this the system then looped back around and then proceeded to generate a popup informing me that the input was incorrect.</p> <p>Here I was then shown the request to enter the upper bounded date, at this point I entered a date that was in the future. This value was then passed into the next validation method which checked to see if the date was erroneous, as it was a boolean value of true was returned followed by the repeating of the loop and the generation of a popup informing myself about the incorrect entry of data. Because the system managed to generate the correct responses to both of the outputs I will accept the test as it achieved the desired output by preventing the generation of actions from being conducted.</p>
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test Plan 13B, Objective No. 13B, Read transaction log from file

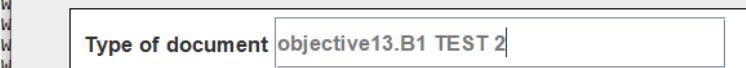
Test ID	Test Type	Purpose/Expected Output	Pass?
13.B1	Functionality	This process will be tested after any major action made by the employee is made on the system, what should happen is for any action a custom set of attributes are passed through the system and will be sent into a standardised method. While the actual data is pretty easy to retrieve and create, a binary search will then be employed to find the index of the current employee on the system, after this is done their information is then split where an extra location is created, after this the contents are then concatenated again and finally written to file. I will check the file afterwards to confirm the process.	Rectified
13.B2	Validation	While the data that will be passed through the field will need to be validated this objective is not where it will occur, as each instance the data is entered by the user the corresponding objective linked to the entry of that data will perform it. Because of this we can skip this validation test otherwise we would have to validate every type of attribute on the system, which would be a gross waste of time.	Not performed
13.B3	Navigation	As this is a non-graphical test and no visual cues need to be generated we can just skip this test plan and move onto the first test of this objective. This is because the system has no need to use any visual items for the user to indicate that the process of writing the action to file has occurred.	Not performed

Test ID	13.B1	
Data Set	A1	
Evidence	<p>EHAR000001,SHAR000001~testAction#24/ EHIL000001,SHIL000001~ ENUR000001,CNUR000001~ ENUR000002,SNUR000002~ ENUR000003,CNUR000003~ ENUR000008,SNUR000008~ ENUR000009,CNUR000009~ ESUT000001,SSUT000001~ ETOM000001,CTOM000001~</p>  <p>work\Written work\Project\humanSelectedKneck.jpg <input type="button" value="Get FilePath"/></p> <p>21 February 2020 <input type="button" value="View Dates"/></p> <p>Type of document Test13.B1</p> <p>Additional information: This is to aid the testing of objective13.B1</p>	
Actual Commentary	<p>After performing a task (creating a legacy document using an image just on the file) I added some text I know for certain that the task would work correctly with. After pressing the create button a legacy document was successfully created (see test 17), carrying on when the system called the method located in user, the correct list of employees was pulled to the system, then the binary search method was called to find the index, however as seen in the image above an ID of EABB000001 was passed through, as the account EABB000001 does not exist the popup was shown, regardless an index of -1 would have been returned back to the user, so when trying to access that index the out of bounds exception was thrown. Because of this we need declare the initial test was a failure.</p>	

Further actions /Enquiry

```
public void createNewAction(String action, String entityID, String patientID, String employeeID) {  
    Employee tempEmployee = new Employee();  
  
    //deal with using the entityid as we can just convert it here, means we can  
    String employeeID = "E"+patientID.substring(1,patientID.length());
```

The test failed due to the fact that the search value was being declared as a substring version of the patient's primary key, hence causing issues (as the patient won't exist on the staff logs). The fix was simple and quick to introduce all I did was replace patientID with EmployeeID, after this I recreated the conditions for the test again and proceeded to carry it out. This time as hoped the document was created perfectly (as before) and then the ID was found the index was retrieved and the data was successfully concatenated to the line. After this had occurred it was written to file. To make sure that the actual data was usable I used the action log (as tested in test 12) and saw that only 1 action had occurred and the correct data was written. Because of this I will accept the test.



Additional information:

This is to aid the testing of objective13.B1 TEST 2

-ENUR0000001,CNUR0000001~
-ENUR0000002,SNUR0000002~Created Legacy Document
(newDocument.docType)#22/02/2020 19:7#This is to aid the
objective13.B1 TEST 2#N/A#PABB0000001#AABB0000001@
-ENUR0000003,CNUR0000003~
-ENUR0000004,SNUR0000004~

Current Action	Patient	Adm
Created Legacy Document (newDoc...	PABB0000001	AABB0000001

Date action occured	New Data	Old
22/02/2020 19:7	This is to aid the testing of objective1...	N/A

Rectified

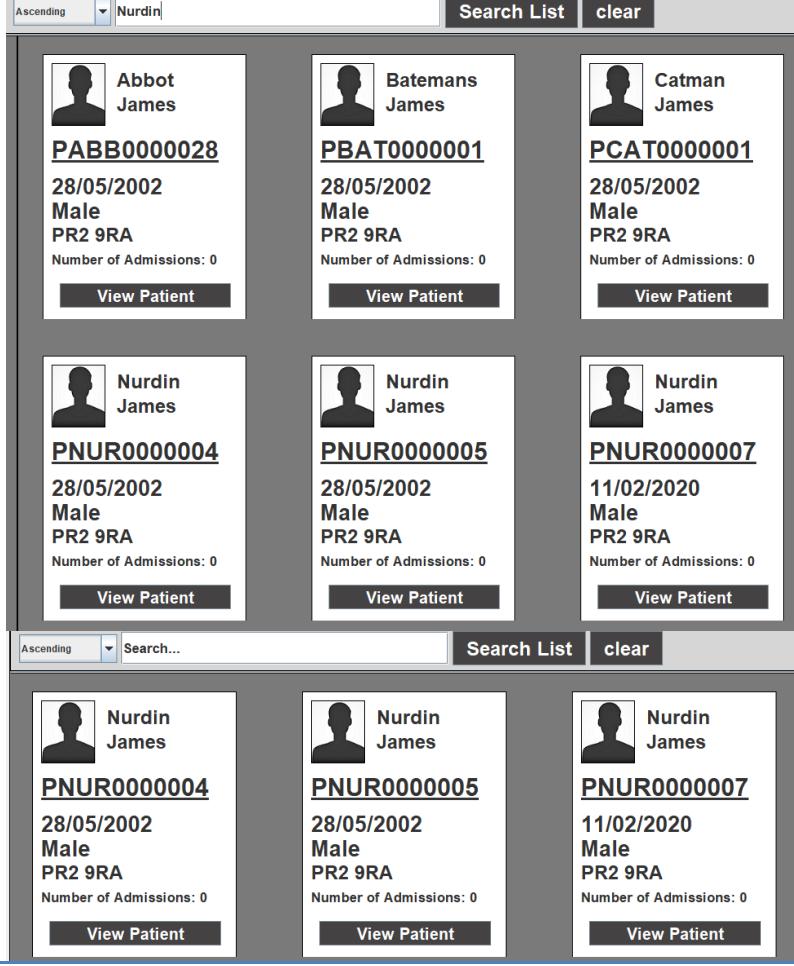
Test Plan 14, Objective No. 14, Staff can sort for patients

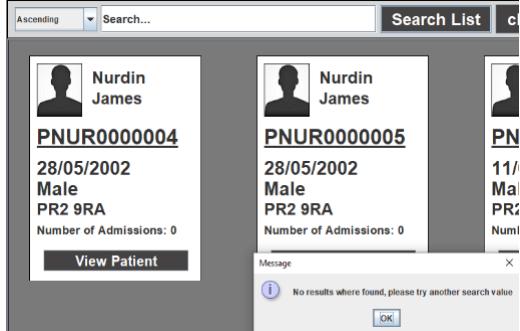
Test ID	Test Type	Purpose/Expected Output	Pass?
14.1	Functionality	<p>When the staff are logged in, they will be greeted with their homepage. The homepage will consist of a graphical feature containing many patients, in the form of card like shapes. When the staff sees the list, the entire file will already be in ascending alphabetical order (A-z). When they try and change the order they will select the combo box and select the order they desire (ascending or descending order), when they select the other option the panel will update, what happens is that the system determines what order the current file is then a quick sort is performed on the list of data, what happens then is that this array should be passed into the same method which created the graphical feature but this time the global list of patients get their information set corresponding to the index in the same corresponding array. In layman's terms the patient's array should never change but rather the location they are assigned to do. The sort should occur by PatientID nothing else, as this is the only primary key for the patients. Initially the user will sort the list to descending, then the user will search for an item (in this case Nurdin), it will return all the instances nurdin occurred. Then the staff will sort for a descending order, the system should reorganise the search (using the same method), the list should then appear in descending order.</p>	
14.2	Validation	<p>Similar reasons to why this test is not being performed follow test 10.2. The reason we don't need to perform any validation testing whatsoever is due to the fact that the method does not rely on any invalid inputs whatsoever. Another way of phrasing it is that the system can only accept correct inputs.</p>	Not performed
14.3	Navigation	<p>While slightly unusual the objective doesn't need to test the navigation on the sorting algorithm due to the fact that it doesn't move the user between interfaces but rather updates the existing panel on the system. To add to this as the system will always generate the correct list regardless, see dev testing.</p>	Not performed

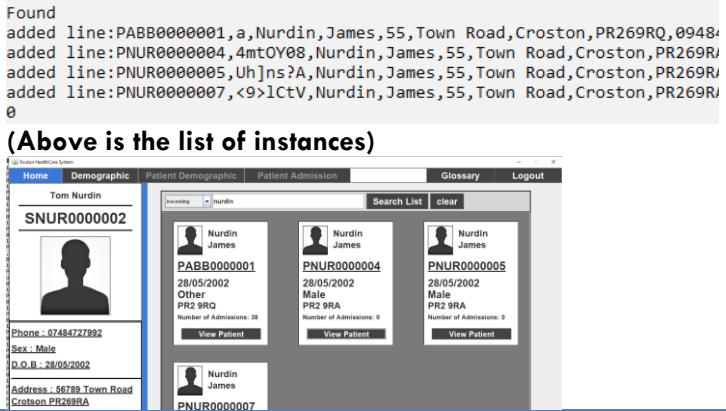
Test ID	14.1
Data Set	List of patients
Evidence	 
Actual Commentary	<p>As you can see from the lists the items are ordered in the desired fashion. How it works is due to the fact we use a list of indexes which holds the instances location and assign the values from the list of patients. So whenever a sort occurs the list of indexes are compared rather than the actual instances. While it would be nice to order by date of birth etc. I feel the strong searching capabilities make up for it. Anyway after the list is passed through to the sorting algorithm, a quick sort is performed which returns the list into the desired order. Then once the indexes where in order the list is returned where it was displayed to the user. Because this works we can call the test a success a move on.</p>
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test Plan 15, Objective No. 15, Staff can sort for patients

Test ID	Test Type	Purpose/Expected Output	Pass?
15.1	Functionality	<p>When the staff account logs into the system , they are met with the graphical feature. In order to search for an item they will enter the key field, or piece of data they want to locate the patient by entering the data into the text box and then press search. Now the system should then for every item in the list concatenate a series of attributes for the user and store them in a string array, with the same length as the objects array.</p> <p>After this, both the new stringed list and the search item are passed into a special search. What happens here is a linear search/ however as it can search several fields at once it wouldn't be as detrimental if we performed a binary search on 6 fields (which would have been needed to be ordered also), anyway we will see a .compare() method used to determine if the user desired field exists in any of the indexes, if so the item's index is added to an array which is returned. At the end the system should return this array and display it to the user</p>	
15.2	Validation (search field) <Null>	<p>When the user tries to enter an item to search it will always accept any input made by the user. When I try to enter no information and leave it null the system should try to find the data regardless and will eventually display an output informing myself that no value was found, this will also be applied to characters and values are not found in the array. When entered and searched for the array size when returned should equal 0 and hence a corresponding popup should be showed to the user informing them that no items were found by the system. After the popup has appeared the field they entered should be cleared and then reset requesting the user to enter some text.</p>	
15.3	Navigation	<p>For this the system should validate the inputting of information made by the user after this is the system should immediately begin the process of sorting the items. Once this has been achieved the system should return a list of items, see test 15.1 Once this has occurred the system should then proceed by passing the array into the generation method where using the index the system should correctly generate the list panels of items. Here we should see the correct instances of the patients along with all their information.</p>	Not performed

Test ID	15.1												
Data Set	U1												
Evidence	 <p>The screenshot shows a search interface for patients. At the top, there is a search bar with the text "Nurdin" and buttons for "Search List" and "clear". Below the search bar, the results are displayed in a grid format:</p> <table border="1"> <thead> <tr> <th>Result 1</th> <th>Result 2</th> <th>Result 3</th> </tr> </thead> <tbody> <tr> <td>Abbot James PABB0000028 28/05/2002 Male PR2 9RA Number of Admissions: 0 View Patient</td> <td>Batemans James PBAT0000001 28/05/2002 Male PR2 9RA Number of Admissions: 0 View Patient</td> <td>Catman James PCAT0000001 28/05/2002 Male PR2 9RA Number of Admissions: 0 View Patient</td> </tr> <tr> <td>Nurdin James PNUR0000004 28/05/2002 Male PR2 9RA Number of Admissions: 0 View Patient</td> <td>Nurdin James PNUR0000005 28/05/2002 Male PR2 9RA Number of Admissions: 0 View Patient</td> <td>Nurdin James PNUR0000007 11/02/2020 Male PR2 9RA Number of Admissions: 0 View Patient</td> </tr> <tr> <td>Search List</td> <td>Search List</td> <td>Search List</td> </tr> </tbody> </table>	Result 1	Result 2	Result 3	Abbot James PABB0000028 28/05/2002 Male PR2 9RA Number of Admissions: 0 View Patient	Batemans James PBAT0000001 28/05/2002 Male PR2 9RA Number of Admissions: 0 View Patient	Catman James PCAT0000001 28/05/2002 Male PR2 9RA Number of Admissions: 0 View Patient	Nurdin James PNUR0000004 28/05/2002 Male PR2 9RA Number of Admissions: 0 View Patient	Nurdin James PNUR0000005 28/05/2002 Male PR2 9RA Number of Admissions: 0 View Patient	Nurdin James PNUR0000007 11/02/2020 Male PR2 9RA Number of Admissions: 0 View Patient	Search List	Search List	Search List
Result 1	Result 2	Result 3											
Abbot James PABB0000028 28/05/2002 Male PR2 9RA Number of Admissions: 0 View Patient	Batemans James PBAT0000001 28/05/2002 Male PR2 9RA Number of Admissions: 0 View Patient	Catman James PCAT0000001 28/05/2002 Male PR2 9RA Number of Admissions: 0 View Patient											
Nurdin James PNUR0000004 28/05/2002 Male PR2 9RA Number of Admissions: 0 View Patient	Nurdin James PNUR0000005 28/05/2002 Male PR2 9RA Number of Admissions: 0 View Patient	Nurdin James PNUR0000007 11/02/2020 Male PR2 9RA Number of Admissions: 0 View Patient											
Search List	Search List	Search List											
Actual Commentary	When logging in I was greeted, with a large list of data as expected, here I entered the surname of the patient I wanted that being “nurdin”. After this I pressed the search value and then it was passed through the search algorithm. .Here the system performed the search as described in the expectation every item was concatenated and then compared against the search item, passing any values that matched back into the return array. At the end as desired I received three individual items, in order that all continued the surname Nurdin. Because of this I can move on swiftly, there is no need to delve deeper the process was thoroughly explained to a well enough depth. Regardless the test was a success.												
Further actions /Enquiry	As no errors have occurred we can move onto the next test.												
Rectified	N/A												

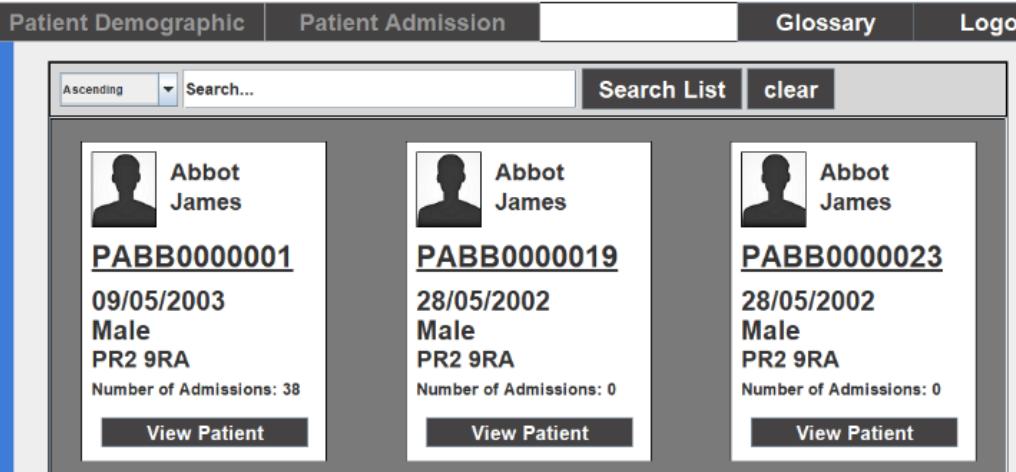
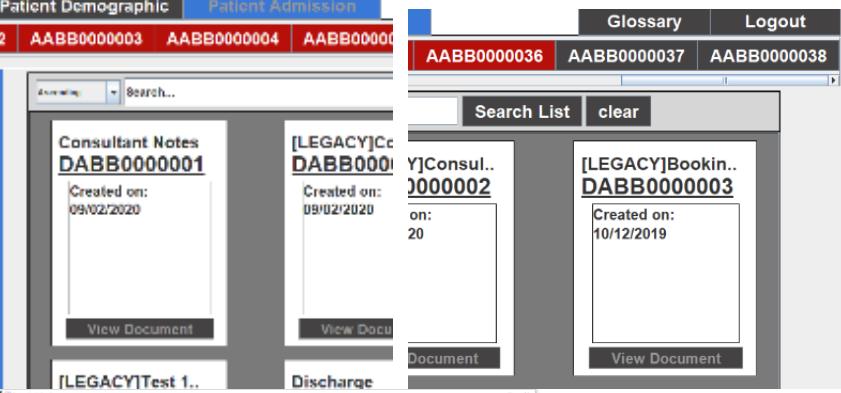
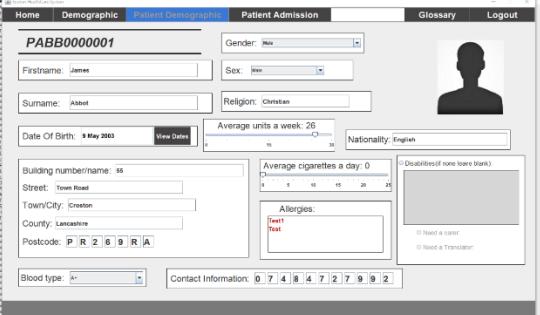
Test ID	15.2
Data Set	Validation (search field) <Null>
Evidence	
Actual Commentary	When I logged on I proceeded to enter the values set out in the expectation initially I left the field and pressed search, as expected the system produced a popup saying that no value was found, we can deduct from this that the value was passed through the search and then compared against the values. Immediately after acknowledging the text field the system then reset the search field with the standard text. I repeated this process for two more values a character of @ and then an extreme value on the system. again the same proceedings a popup followed by the clearing of my values and setting the homepage as normal. Because of this, we can accept the test and move on to the next test.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test ID	15.3
Data Set	Navigation
Evidence	 <p>(Above is the list of instances)</p>
Actual Commentary	As you can see from the above screen shot after test 15.1 the system returned the list of patient instance indexes to the method. Once this occurred the system correctly found the instance and then pulled said instance followed by the assigning of their attributes to the card. At the end we can see a list of patients that met the search query laid out by me. Because of this we can call the test a success and move on, as there's little need to go too in depth for this feature.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test Plan 16, Objective No. 16, View patient details

Test ID	Test Type	Purpose/Expected Output	Pass?
16.1	Functionality	When at the start of the program, the staff account should log in as normal here they will see all their patients available to them. This should occur due to the fact the system should have called a method which reads the first line of every patient assigned to them. After this the system should then create instances for each patient and then assign them an index. Following this their details should be assigned to a card and displayed. Once the user selects the patient they want to view in full the system should initially call the full file reading method for the patient (see test 48.1) after this the system should pull the instance back to the admission panel along with the staff. After this the user will navigate to see the patient's details.	Pass
16.2	Validation	<i>No data is able to be used to perform the validation. Because of this the test is not needed and can be consequently omitted from the test plan.</i>	Not performed
16.3	Navigation	When the staff account logs in, initially the patient demographic button should always be disabled unless active on a patient's account, after selecting the desired patient they want on the system, the patient's information should be read from file along with all their information. At this point the system should enable the two other main tabs for the staff account. When loaded the staff account should be brought to the patient's admission panel. Any incomplete or outstanding information should be highlighted to inform the staff that it needs to be updated, finally the new create admission button should not be on the admission tab bar. However when the staff meet the panel, the system should disable all access to view documents. Finally the staff account should navigate to the patient's demographic information, here they should see all their fields, while being able to interact with fields they will be unable to save the details to their account.	Pass

Test ID	16.1
Data Set	P1
Evidence	<p>67 68 Basic patient details retrieved:PABB00000001,Nurdin,James,PR269RA 69 Basic patient details retrieved:PABB00000019,Abbot,James,PR269RA 0 1 Basic patient details retrieved:PABB00000023,Abbot,James,PR269RA HERE 0 1 Basic patient details retrieved:PABB00000024,Abbot,James,PR269RA 0 1 Basic patient details retrieved:PABB00000025,Abbot,James,PR269RA 0 1 Basic patient details retrieved:PABB00000027,Abbot,James,PR269RA</p> <p>Extron HealthCare System</p> <p>Home Demographic Patient Demographic Patient Admission Glossary Logout</p> <p>Tom Nurdin</p> <p>SNUR0000002</p> <p>Phone : 07484727992 Sex : Male D.O.B : 28/05/2002 Address : 56789 Town Road Crotson PR269RA Lancashire Wage:12.0 Hours per week:1233</p> <p>Found a patient PatientID PABB0000001 Next patient Next patient</p> <p>Extron HealthCare System</p> <p>Home Demographic Patient Demographic Patient Admission Glossary Logout</p> <p>PABB0000001</p> <p>Gender: Other Firstname: James Surname: Nurdin Religion: Christian Date Of Birth: 28 May 2002 Building number: 55 Street: Town Road Town/City: Crotson County: Lancashire Postcode: P R 2 6 9 R Q Average units a week: 7 Average cigarettes a day: 0 Allergies: None Blood type: A+ Contact Information: 0 9 4 8 4 7 2 7 9 9 8 Nationality: English Disabilities(if none leave blank) Need a carer: Need a Translator:</p>
Actual Commentary	While a little harder to explain without going into what I will discuss in test 16.3, after logging in the system attempted to retrieve all the patients on the system without pulling unnecessary information like any other linked classes like document etc. After it retrieved the data the instances where then assigned and then displayed to me I then proceeded to then select Patient PNU0000001 when I did this, the system then performed a full patient retrieval in which can be seen in test 48.1 after this occurred the instance and myself where both brought to the admission home panel. Here I selected view demographic and could see all the patient's details. Because of this I will call the test a success and move on.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test ID	16.3
Data Set	N/A
Evidence	  
Actual Commentary	<p>As you can see from the initial image when the program is created, above the search bar the tabs for the patient's admissions and demographic are disabled, for all the patient cards of information, nothing too sensitive is shown, but rather enough the information to help identify the user. After I clicked on the patient button, their information was retrieved from file, and as you can see in the next image I was returned to the patient's admission home panel. On inspecting the admission tab as expected the new admission button was missing. Also to add to this the view document button had been disabled for all documents. Finally I navigated to the view demographic panel where I saw that the update demographic button had been hidden but the components where editable. Because all the requirements I claimed in the expectation had been met we can call the test a success and move on.</p>
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

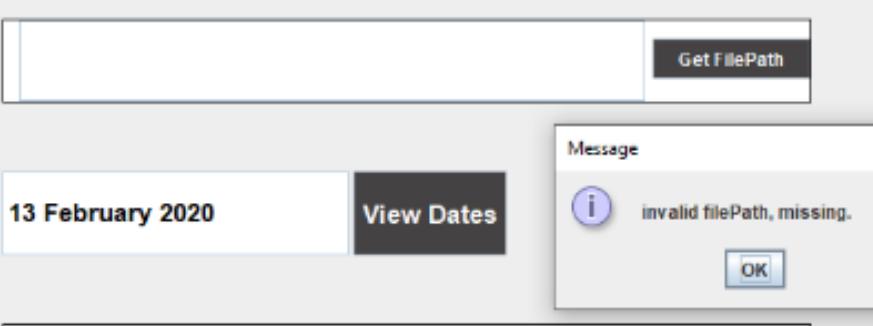
Test Plan 17, Objective No. 17, Add archived notes from old system

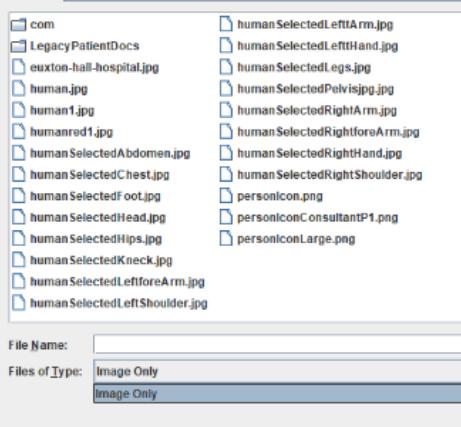
Test ID	Test Type	Purpose/Expected Output	Pass?
17.1	Functionality	When the user logs in and selects a patient, they will navigate to the legacy document panel, here they will need to locate the image of the scan by selecting the file selector, after the document is selected the user will then see the image appear in front of them to indicate that is the correct document. The file path can be anywhere, as the system should create a copy of the file. After the file path has been set, the user will then enter the date the document was created using the date picker. They should then select the date the document was created. Now here the staff account in reality will correctly enter the title of the document, in addition to this they will use the text area to enter any additional information regarding the document. Now the staff is ready to create the document. What should happen here is twofold, one the file path selected initially will get copied over to the folder in the main system folder it will also get an appropriate file name to reflect the document. After this the file path is found and assigned to a new instance of document. Also any required attributes should also be initialised and attached. Finally the new document should have its location in the patient's account found and added, with the number of documents being incremented. The staff will be brought back to the admission's home panel.	
17.211	Validation (file path) <Null>	For this objective when the user starts the objective they should be located at the patient's admission panel, here they should select the create legacy document button and be moved to this panel. Here they will enter all the fields available to them however the user should then proceed to leave the absolute file path blank. Once they press create document button the system should pass the field into a presence validation method. As the field is null the system should return false and then generate a popup window for the user informing them of the error.	
17.221	Validation (Date Picker) <Null>	Here when the user starts the method they will be greeted by the legacy document panel. For this test the user should proceed to enter all the fields on the panel, however for the date picker the user should purposely leave the date picker field as null. When the user clicks the create legacy document button the system should then pass the contents of the field into the presence validation method. As the field is null the system should return false and then generate a popup window for the user informing them of the error.	
17.222	Validation (Date Picker) <Range>	For this objective when the user starts the objective they should be located at the patient's admission panel, here they should select the create legacy document button and be moved to the intended panel. Here the user will continue to enter all the fields in the panel. For the date of the creation of the document the user should attempt to enter a date in the future. The system should prevent any invalid dates (Dates past the current date) from being selected.	
17.231	Validation (Document type) <Null>	For this objective the user should start at the admission panel. Here the user should move to the legacy document page. Once here they should proceed to enter all the fields excluding the document type. Once they have done this the system should then pass the values into the presence validation method. As the field is null the system should return false and then generate a popup window for the user informing them of the error.	

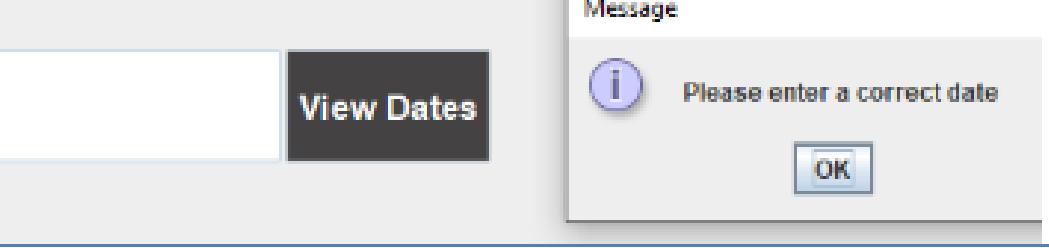
17.232	Validation (Document type) <Type>	At this test, the staff account will start at the admission panel initially after moving to the document type panel similar to the last test they should fill in all the other fields on the panel. However this time the user should proceed to enter digits into the field. After this has been done the staff account will then press the create legacy button for the system. As the field contains non strings the system should return false and terminate the creating of the document. To add to this the system should also generate a popup informing the user.	Rectified
17.241	Validation (Additional info) <Type>	Here when the user starts the method they will be greeted by the create legacy document panel. After entering all the values into the correct fields the staff account should then attempt to enter the character “@” into the additional info text box. After this is done the will press the create document button, at this point the system will then pass all the fields into the validation method. At this point the system should recognise that the text area contains a forbidden character and will return false. As a result of this the system should terminate the generation of the document and display a popup window to the user informing them of the error.	
17.242	Validation (Additional info) <Null>	Here when the user starts the method they will be greeted by the legacy document panel. For this test the user should proceed to enter all the fields on the panel, however for the additional information the user should purposely leave area as empty. When the user clicks the create legacy document button the system should then pass the contents of the field into the presence validation method. Unlike the other methods the system should then accept the input and then proceed the creation with a document.	
17.3	Navigation	For this objective when the user starts the objective they should be located at the patient's admission panel, here they should select the create legacy document button and be moved to the destined panel. Once they reach this part the system should initially generate all the components necessary to create the document in test 17.1. After this the user should then proceed to enter a file path, here the system should generate a date picker with image files only selectable. After this the user selects the desired image the system will then copy the file path and paste it in the field to add to this a copy of the file will be displayed to the user. Finally after finishing entering all the fields the user should press the create document button causing the instance to be created and the user returned back to the admission panel.	

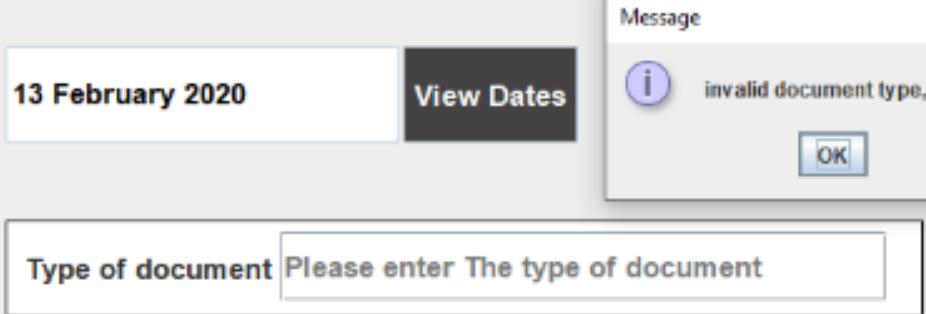
Test ID	17.1
Data Set	D2
Evidence	<p>DABB0000015@22/02/2020 19:54@null@This is a test DABB0000016@22/02/2020 19:57@Test Results Document DABB0000017@22/02/2020 20:11@Consultant Notes@: AABB0000002,CNUR0000009,0,theseootherapy,Symptom</p> <div style="border: 1px solid black; padding: 5px;"> <input type="text" value="work\Written work\Project\leuxton-hall-hospital.jpg"/> <input type="button" value="Get FilePath"/> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> 7 January 2020 <input type="button" value="View Dates"/> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> Type of document <input type="text" value="LEGACY test doc"/> </div> <p>Additional Information: This text is to help show functionality and demonstrate test 17</p> <div style="text-align: right; margin-top: 20px;"> <input type="button" value="Create Legacy Document"/> </div> <div style="display: flex; align-items: center; margin-top: 20px;">  <div style="margin-left: 20px;"> <p>[LEGACY]LEGACY... DABB0000018</p> <div style="border: 1px solid black; padding: 5px; background-color: #f0f0f0; width: fit-content;"> <p>Created on: 07/01/2020</p> </div> <div style="text-align: right; margin-top: 10px;"> <input type="button" value="View Document"/> </div> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 20px;"> <p>DABB0000017@22/02/2020 2 DABB0000018@07/01/2020 2 AABB0000002,CNUR0000009,</p> </div>

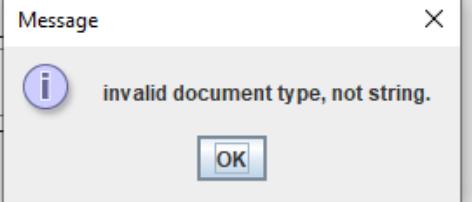
Actual Commentary	As expected when I launched the program I entered the system for the staff, I select my standard patient PABB0000001, then access my standard admission. From here I load up the create legacy document panel. From this point, I load up the file selector and choose the JPEG of the Euxton building. Once I selected the file and pressed open it, the file path was copied from the file opener and then inserted into the text field. After this I entered a suitable date that was in the past, carrying on I went onto correctly add in the remaining information: a correct title and a brief description. After pressing save the information was passed into a new instance, the image was copied over to the system folder then the new document was written to file, along with the staff's action in the employee action log. As a result I can confidently say that this passed the test, we can now focus on validating it now.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test ID	17.211
Data Set	Validation (file path) <Null>
Evidence	
Actual Commentary	Here when I loaded into the staff account I then proceeded to the create legacy document panel. Here I then attempted to enter all the fields in correctly with the exception of leaving the file path as an empty value. After this I then proceeded to press the create document button. After this the field was passed onto a validation presence check. As the item was empty the system saw this and then returned the boolean value of false. Finally the process of generating a document was paused then a popup was generated informing the user. Because of this we can regard the test as a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

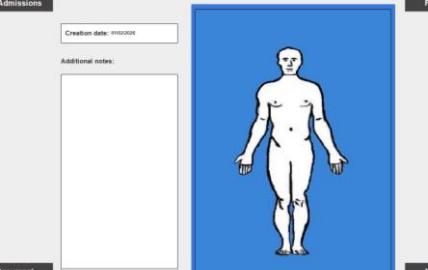
	17.212
Data Set	Validation (file path) <Lookup>
Evidence	<p>Look In: <input type="button" value="Project"/></p>  <p>File Name: <input type="text"/></p> <p>Files of Type: <input type="button" value="Image Only"/> <input type="button" value="Image Only"/></p>
Actual Commentary	Like what was thoroughly explained in the expectation I followed the procedure to the exact word. For every invalid field I received a popup informing me on what I had did wrong. From this I would go onto making one correct data entry and see how the system dealt with it. In all cases the system picked up on erroneous data from sets D2. What needed to happen for this test was the inclusion of the new validation method which checks for any vetoed characters as the text field could have been used to enter character such as @ # , which are used in the backend, regardless the method worked and they were pointed out. As nothing failed we can call the test a success and move on.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

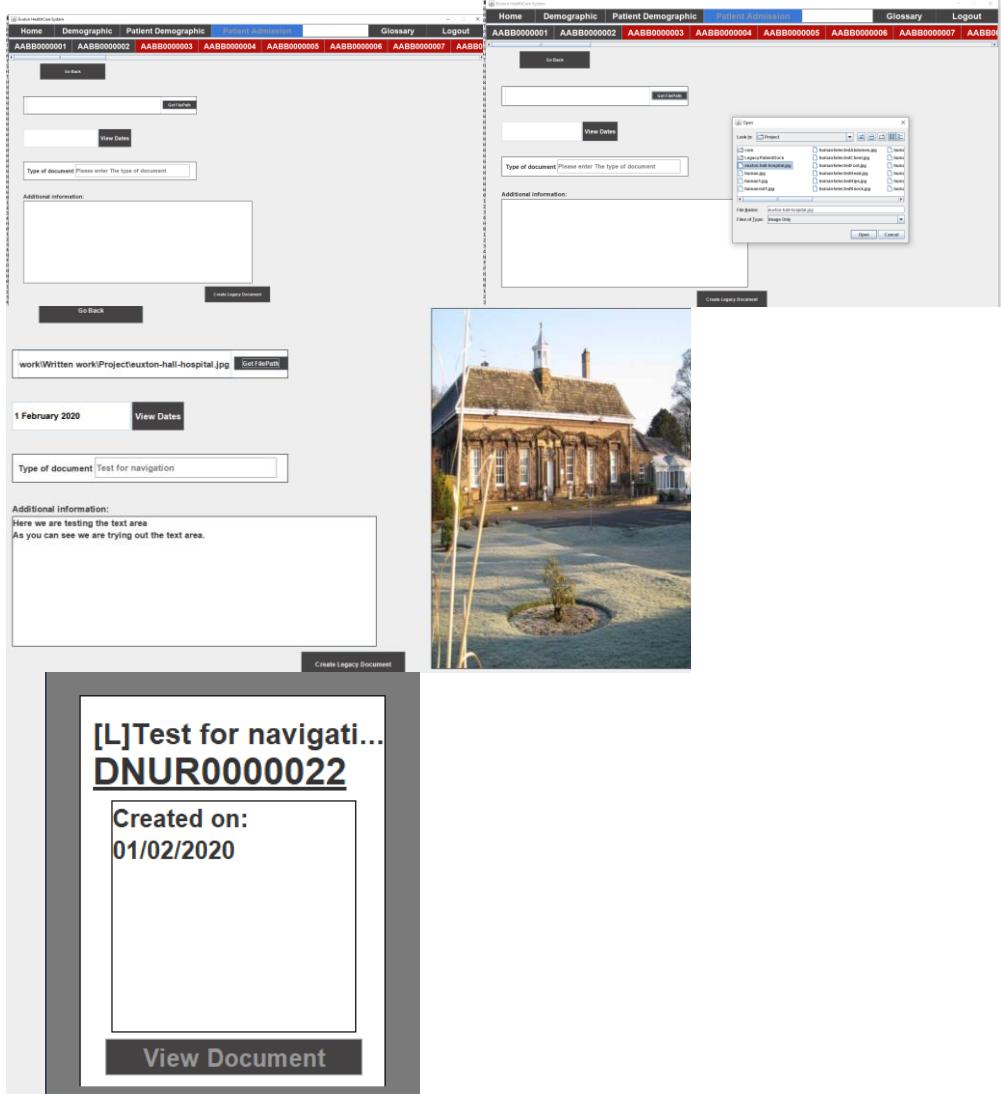
	17.221
Data Set	Validation (Date Picker) <Null>
Evidence	 <p>Message</p> <p> Please enter a correct date</p> <p><input type="button" value="OK"/></p>
Actual Commentary	For this test the user will proceed to the legacy document panel, after getting here I then proceed to enter all the fields I needed to, after this I then cleared the date and then proceeded to press the create document button. The date's field was then passed into presence method and saw that the system returned the boolean value false. After this the system recognised that the validation method failed and terminated the generation of the document and created a popup. Because of this we can regard the test as a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	17.231
Data Set	Validation (Document type) <Null>
Evidence	 <input type="text" value="Type of document"/> Please enter The type of document
Actual Commentary	At the start of the test as it was described in the expectation I started the program and made my way to the legacy document panel. Here I then proceeded to enter the date and file path for the document but when I came to the type of document I skipped over it and then proceeded to generate the document. After pressing the create document button the system then proceeded to pass the value into a presence validation check. As the value was null a boolean value of false was returned to the user. The result of this was that the operation of the method halted and then a popup was generated for the user. Because of this we can regard the test as a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	17.232
Data Set	Validation (Document type) <Type>
Evidence	<p>Type of document Test for test 17.2</p>  <p>dditional information:</p> <pre>ument . docType) . substring (0 , 14) + " . ") ;</pre> <pre>-EventQueue-0" java.lang.StringIndexOutOfBoundsException: begin 0, end 14, length 12 a.lang.String.checkBoundsBeginEnd(String.java:3319) a.lang.String.substring(String.java:1874) issionDocumentpanel(Gui.java:2493) issionHomepagePanelGUI(Gui.java:2256) acyDocument(Gui.java:6231) formed(Gui.java:10902) java.awt.event.ActionListener.performAction(AbstractButton.java:1067)</pre>
Actual Commentary	<p>Initially for this test like the others I started the program and then entered all the expected values required, with the exception of the type of document containing a non-string value, after pressing the create document button the system then proceeded to pass all the values to the validation method. As I predetermined the system recognised the error and then returned then returned back a value of false. This then caused a popup to then be generated followed by the termination of the method. As a result the validation works.</p> <p>However after completing this I then tried to carry out a normal creation of the document but was met to an admission panel that failed to be correctly displayed followed by an exception being thrown and then caught. Because of this I will have to fail this test as a result.</p>
Further actions /Enquiry	While not directly associated with the test in particular as a result of some visual imperfections being made on the system the label for the title of the document was sub stringed to the maximum visual limit. This caused the Out-of-bounds exception from before. The fix was simple instead of having a sub stringed title I will just say that the document was a legacy one, after implementing this the issue has been resolved. Because of this we can regard the test as a success.
Rectified	

Test ID	17.241
Data Set	Validation (Additional info) <Type>
Evidence	<p>Additional information:</p> <pre>@test as this char is used to split the data #this one also cant be used as it signifies new line £ this cant be used as it is in the action log</pre> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> Message invalid character used, @. <input style="border: 1px solid #ccc; padding: 2px; float: right;" type="button" value="OK"/> </div>
Actual Commentary	For this test when I started the system I navigated to the legacy document panel. Here I then proceeded to enter all the intended information onto the panel, after doing this I went back to the additional information text area where I proceeded enter the character "@". After pressing the create document button the field was then concatenated correctly and passed into the type validation method, as it had an illegal character the method returned false and then terminated early and generated a popup to the user informing them of the error. Because of this we can regard the test as a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

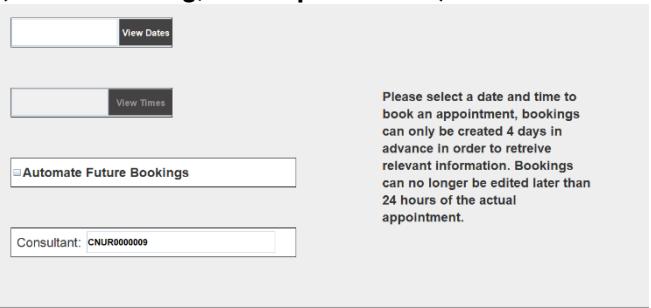
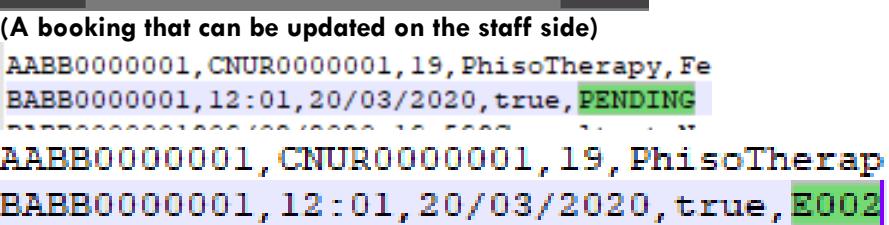
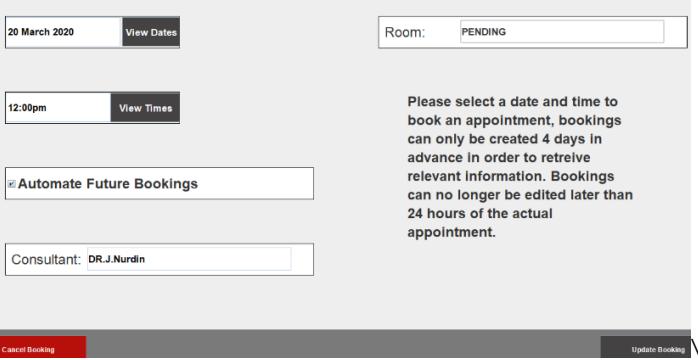
Test ID	17.242
Data Set	Validation (Additional info) <Null>
Evidence	
Actual Commentary	Initially I was at the admission panel, after navigating to the legacy document I then proceeded fill in all the fields except the additional notes field after doing this I then proceeded to select the create document button. Unlike the other attempts for the other tests of this nature the system did what was expected from it and created the document. At this point no errors were thrown. After this I was greeted back at the admission panel where I could see that the document panel. After logging in as a patient to view it I could see that the field was still empty and that no errors were thrown. Because of this we can regard the test as a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	17.3
Data Set	Navigation
Evidence	 <p>The screenshot displays the application's user interface for creating a legacy document. The main window features a header with 'Home', 'Demographic', 'Patient Demographic', 'Create Legacy Document', 'Glossary', and 'Logout'. Below this is a grid of patient IDs: AABB0000001, AABB0000002, AABB0000003, AABB0000004, AABB0000005, AABB0000006, AABB0000007, and AABB0000008. The central area contains fields for 'Type of document' (with placeholder 'Please enter the type of document'), 'Additional information' (with placeholder 'Here we are testing the text area. As you can see we are trying out the text area.'), and a date field '1 February 2020'. Buttons include 'View Dates', 'Create Legacy Document', and 'Go Back'. A file picker dialog is overlaid on the right, showing a list of files including 'Screenshot from 2020-02-01 11-11-11.png'. At the bottom is a photograph of a brick building with a chimney, identified as Lupton Hall Hospital.</p>
Actual Commentary	<p>When I started this objective I was at the admission panel as expected, after pressing the create legacy document button I was moved to a new panel where all the fields were empty along with no image in the image field. Then following a similar process to test 17.1 I pressed the file path button, which caused a file picker to appear where only image extensions where available. After pressing open on the desired file, the window closed and the file path had been copied to the field and a copy of the image had appeared. After filling in the rest of the data as normal I pressed the create document button and then I was transported one last time back to the admission home panel where the document was waiting for me. Because of this I can call the test a success.</p>
Further actions /Enquiry	<p>As no errors have occurred can proceed to the next Objective.</p>
Rectified	<p>N/A</p>

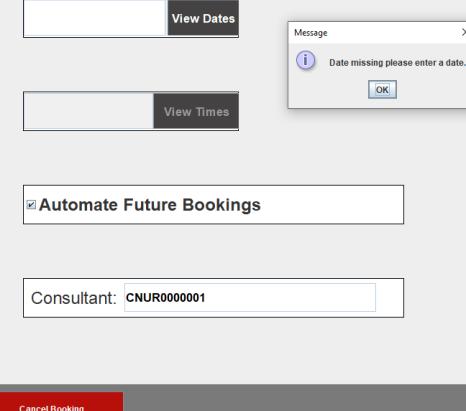
Test Plan 18, Objective No. 18, Amend bookings

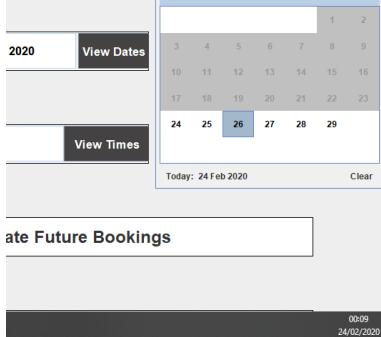
Test ID	Test Type	Purpose/Expected Output	Pass?
18.1	Functionality	<p>When we start the system the user will locate the booking in reference they want to amend. On selecting the panel, the old booking should be presented to the user, along with this an attribute determining that the booking is not new is set, from here they will enter the information they want now for the booking, after they have entered the information they want to update, they will press update booking. From this the same standard validation will go through the data checking that it is acceptable for the system. Once validation has occurred it, then determines if the booking is new or not. If it already existed on the system it will delete the booking. Here the system will locate both instances of the booking in both accounts and just clear that line from file. After this the existing booking will be treated as a new booking and have the new information written to file, following the same process as test 8. Once done the user is returned home where the reflections can be seen by the user.</p>	
<p>Because this validation has already been conducted during test 5.2 we don't need to validate the feature however for the sake of being sure a few basic tests will be conducted on the major fields. This will be done in an effort to ensure that the data is correct and that the system can deal with the process updating a booking correctly on the system. However to avoid wasting too much time the tests will be brief as the reader should refer themselves to test 5.2 for a more in depth inspection of the validation of the features. Also to confirm that the validation is for the updating of booking we can use the red delete button as this will only be selectable (and red) for existing bookings.</p>			
18.211	Validation (Date of Booking) <Null>	<p>For this test we are retesting the presence check for the field. Here the user will enter the system and move to the booking panel, here the admission should already have a booking in place from here the user should then proceed to enter all the fields except the date of booking field. After this the user should then continue entering the rest of the data normally. From here the user should click the update booking button. This will pass the field into a presence validation check, as the field is empty the system should return false causing the process to terminate early also producing a popup informing them of the error they caused.</p>	
18.12	Validation (Date of Booking) <Range>	<p>For this field the user should start off at the admission panel for the booking they want to alter. When they select the button the system should then display the booking for the user. At this point the user should then start to fill in all the correct data for the system. After doing this for the date of booking when trying to select a date the user should be prohibited from selecting a date that is in the past. Otherwise the system should accept the date and then retrieve the correct times for appointments.</p>	
18.22	Validation (Time of Booking) <Null>	<p>For this test we are retesting the presence check for the field. Here the user will enter the system and move to the booking panel, here the admission should already have a booking in place from here the user should then proceed to enter all the fields except the time of booking field. After this the user should then continue entering the rest of the data normally. From here the user should click the update booking button. This will pass the field into a presence validation check, as the field is empty the system should return false causing the process to terminate early also producing a popup informing them of the error they caused.</p>	
18.231	Validation (Room) <Null>	<p>For this test we are retesting the presence check for the field. Here the user will enter the system and move to the booking panel, here the admission should already have a booking in place from here the user should then proceed to enter all the fields except the room field. After this the user should then continue entering the rest of the data normally. From here the user should click the update booking button. This will pass the field into a presence validation check, as the field is empty the system should return false causing the process to terminate early also producing a popup informing them of the error they caused.</p>	

18.232	Validation (Room) <Type>	For this field the user should start off at the admission panel for the booking they want to alter. Once here the system should correctly show all the current attributes for the booking. The user should then attempt to enter an erroneous datatype into the room field while still leaving the rest of the boxes intact. After this the user should then press the update booking field. Just like every other field the system should then pass the string into the type validation method. As the text contains non letters and integers the method should return false and then terminate the process. Finally the user will be shown a popup informing them of the error.	
18.3	Navigation	For this test the user will initially reside at the admission home page panel. Whilst at this panel the user should notice the booking they are going to amend. After pressing the view appointment button they should be located to the new panel containing the information regarding the booking (due to objective 19). Once here they will proceed to alter information regarding the booking. After this has occurred the user should then press the update admission button. This will cause the admission to then update (see test 18.1). This should cause the system to then return the user home, here they should see the changes made to the admission.	

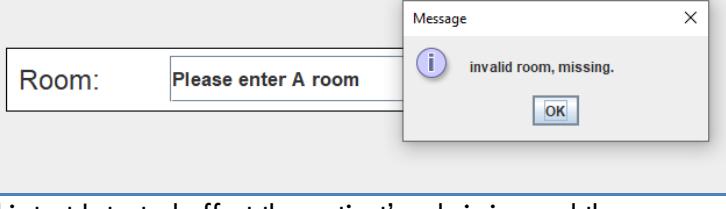
Test ID	18.1	
Data Set	B3	
Evidence	<p>(A new booking, on the patient side)</p>  <p>(A booking that can be updated on the staff side)</p>  	

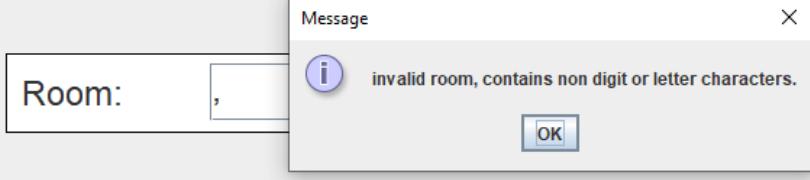
Actual Commentary	When the user logs in and then accesses the admission that they want to update the booking for, the booking is then accessed from the instance, when it was being loaded from file the attribute new document was set to false, because of this the text changed the button from create booking to update booking, not only this but the fields also where set to the correct data. When the staff account amends the information the same process as before occurs as in test 8. When the button is pressed the fields are validated early to avoid errors, after this the old booking instance is removed in the backend where the line is deleted. After this the system then inserts the information into the correct location in the file. Finally the staff account was returned to the home screen, where they could see the updated information. Because the output was expected we can call the test a success.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

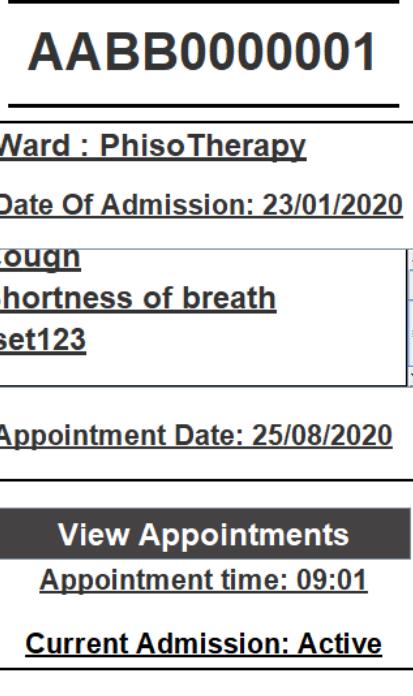
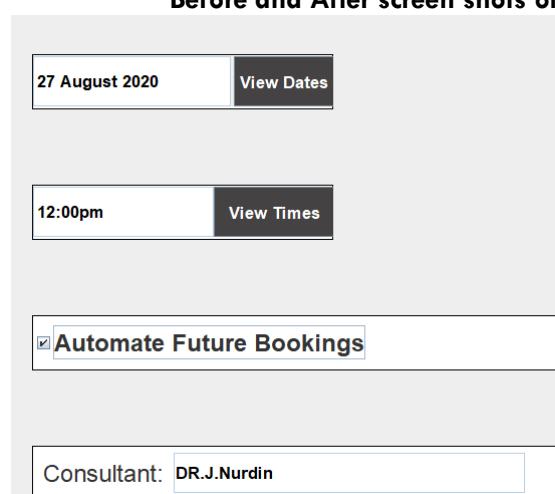
Test ID	18.211
Data Set	Validation (Date of Booking) <Null>
Evidence	
Actual Commentary	Here when I logged in I proceeded to the admission I wanted to edit. After selecting the appointment button I was brought to the booking panel where I could see that an existing appointment was in place. After seeing this had occurred I then went to the view date button and then selected the clear date button. When this occurred two things happened. The first thing was that the field in the box had its contents cleared. The second process was that the time box had its data cleared along with it becoming disabled. Because I was satisfied the correct procedures occurred I then went onto press the update button. When this occurred the date field was then passed into a validation method where the string went through a validation check. As it was null a boolean value of false was swiftly returned and then the process was terminated immediately followed by the creation of a popup informing the user that the field was missing. Because of this I will accept the test and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	18.212
Data Set	Validation (Date of Booking) <Range>
Evidence	 <p>2020 View Dates</p> <p>View Times</p> <p>Today: 24 Feb 2020 Clear</p> <p>Disabled Future Bookings</p> <p>00:09 24/02/2020</p>
Actual Commentary	Here When I started the system I was met with the admission homepage panel. At this point I moved to the booking panel. After having the panel and the booking instance correctly load the data I needed, I then proceeded to click on the view dates button on the date picker. When I loaded in the date picker had its settings class initialised and called for its veto policy to affect all dates before the current date of 24/02/2020. As a result the system correctly disabled all dates before the designated date. This as a result allowed me to bring the date forward and change it to another suitable date. Because of this we can accept the test and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	18.22
Data Set	Validation (Time of Booking) <Null>
Evidence	 <p>View Times</p> <p>i Date missing please enter a time.</p> <p>OK</p>
Actual Commentary	For this test when I started I was greeted with the patient's admission, after pressing the view appointments button I was immediately brought to the panel where all the data had been generated, after seeing this I used what had been done in test 18.21 to remove the times and cleared the date, after doing this I immediately reselected the same date and saw the field was empty. Because of this I then proceeded to press the update booking button, when I did this the system read the line of data and then passed it into a presence validation method. As it was null a boolean value of false was swiftly returned and then the process was terminated immediately followed by the creation of a popup informing the user that the field was missing. Because of this I will accept the test and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	18.231
Data Set	Validation (Room) <Null>
Evidence	<p><i>Booking:</i></p>  <p>A screenshot of a software interface titled "Booking:". Below it is a "Message" dialog box. The dialog box has an "i" icon and the text "invalid room, missing." with an "OK" button.</p>
Actual Commentary	<p>For this test I started off at the patient's admission and then proceeded into the booking panel. Here I was met with all the correct fields from the instance assigned to their corresponding text boxes. As the staff account I could see the room box, and so I edited the text field so that no data was in there. As a result the field then contained the original request data. After this I then pressed update document, after doing this the system then passed the field into the presence check (Because I am staff the system will enforce that field is not null unlike what happens with a patient, as they are unable to see the field). As it was null a boolean value of false was swiftly returned and then the process was terminated immediately followed by the creation of a popup informing the user that the field was missing. Because of this I will accept the test and move on.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

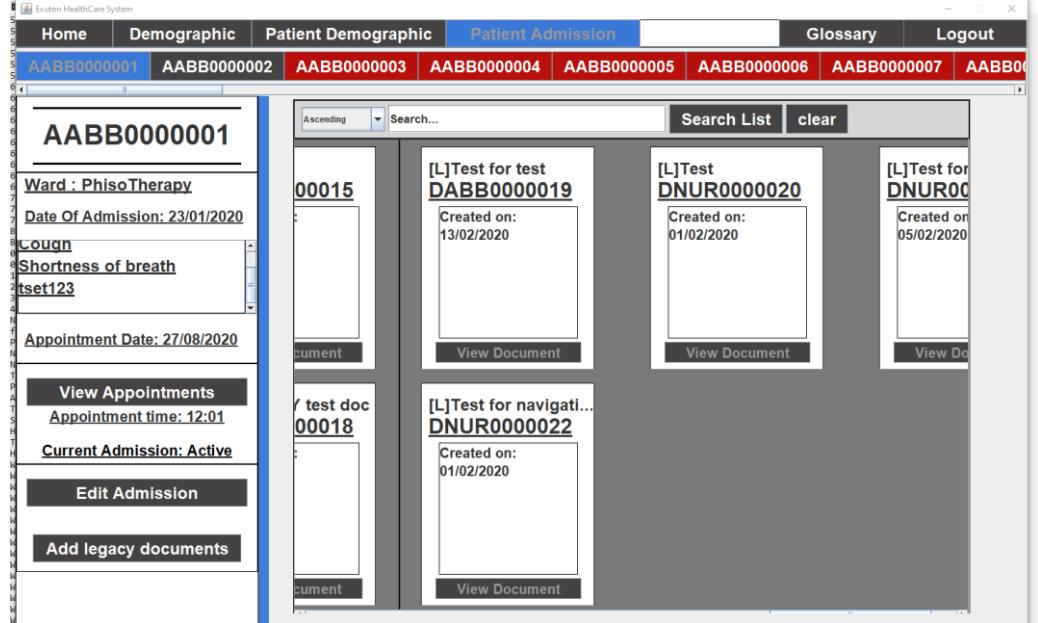
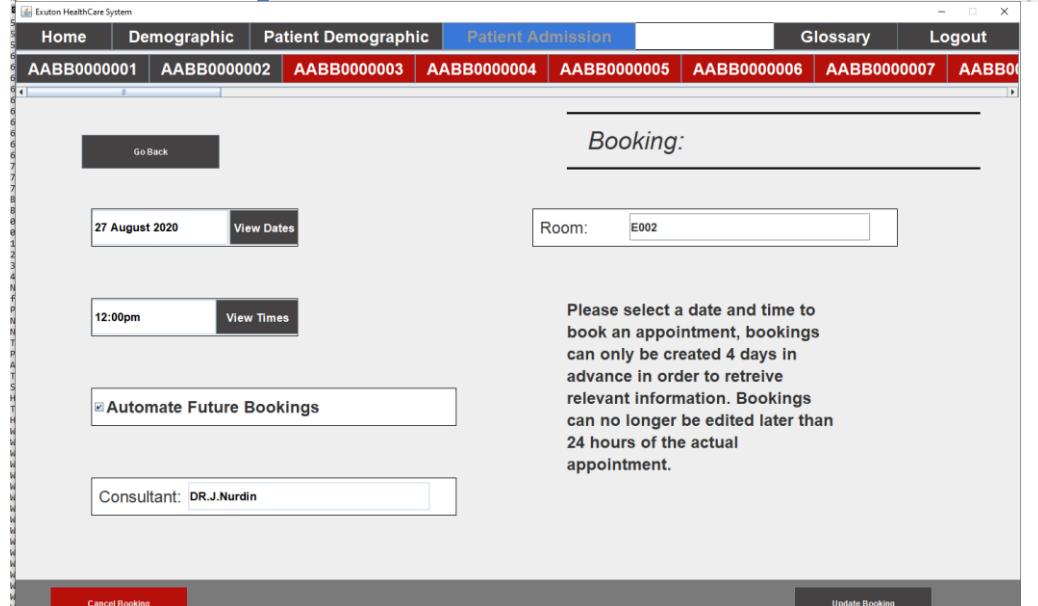
Test ID	18.232
Data Set	Validation (Room) <Type>
Evidence	 <p>A screenshot of a software interface titled "Booking:". Below it is a "Message" dialog box. The dialog box has an "i" icon and the text "invalid room, contains non digit or letter characters." with an "OK" button.</p>
Actual Commentary	<p>For this test I was initially at the admission panel, after pressing the view appointments button I was immediately transported to the booking panel where I could see all the current data for the booking in place for the patient. After this occurred I immediately went to clear the data for the room text field and replace it with the character ". After doing this I then pressed the update booking button. As a result of this the system then passed this value into the type validation method where it checked to see if it was either a string or an int. As it was neither the system then returned false and then cancelled the update and then generated a popup where it explained the error too the user. Because of this we can accept the test and move on.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	18.3
Data Set	N/A
Evidence	  <p>Before and After screen shots of the admission contact bar</p>  <p>Please select a date and time to book an appointment, booking can only be created 4 days advance in order to retrieve relevant information. Booking can no longer be edited later than 24 hours of the actual appointment.</p>
Actual Commentary	Here when I started the test I was at the admission panel for the desired booking, as you can see in the first image all the initial information for the booking was also initialised and then assigned to the components after pressing the view appointments button I was brought to the booking panel. Once here I then saw that all the information before was here, at this point I then proceeded to fill in the fields with data from the data set. See the bottom image. Once this was done I finally pressed the update admission button where I was transported back to the admission home panel where I could see that the changes had been made. Because of this I can then accept this test and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test Plan 19 Objective No. 19, View patient booking

Test ID	Test Type	Purpose/Expected Output	Pass?
19.1	Functionality	When the staff account logs in and selects the patient they want all the program should be retrieve the new instances of Bookings for all the patient's admissions. If it detects a booking for an admission it should add the information, if not the system will just carry on and inform the user that no admission exists, finally when the patient selects the booking panel. When an instance of a booking wants to be viewed/edited the user should select the view appointment panel, here the system should then determine that the admission's booking on the system is not null and will then proceed to then insert the items into the correct corresponding fields for the user to view. Along with this the buttons will change from their usual state to allow further functionality.	
19.2	Validation	<i>No data is able to be used to perform the validation. Because of this the test is not needed and can be consequently omitted from the test plan.</i>	Not performed
19.3	Navigation	For this test as it has not been properly looked into for some time here we will consider the panels for the objective as this time it's important. Initially the user should reside in the admission homepage panel (admissionHomepagePanel) once here the system should generate a button for the user to select the booking panel. Once pressed the user should then be transported to the booking panel (viewAppointmentPanel), along with this from test 19.1 we should also see that the user also sees that the patient's admission's booking is also initialised and then passed through. Because of this the panel order (While smaller than other lists) should look like this: admissionHomepagePanel – viewAppointmentPanel Once here the panel may have one of two states, null and filled. These respectfully representing the booking instance that was passed along with the user.	

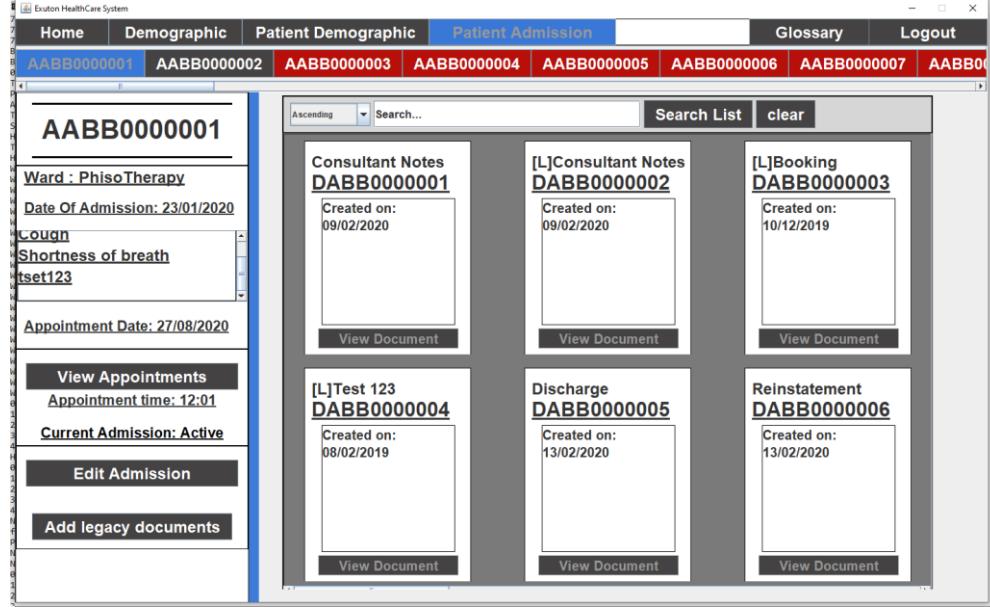
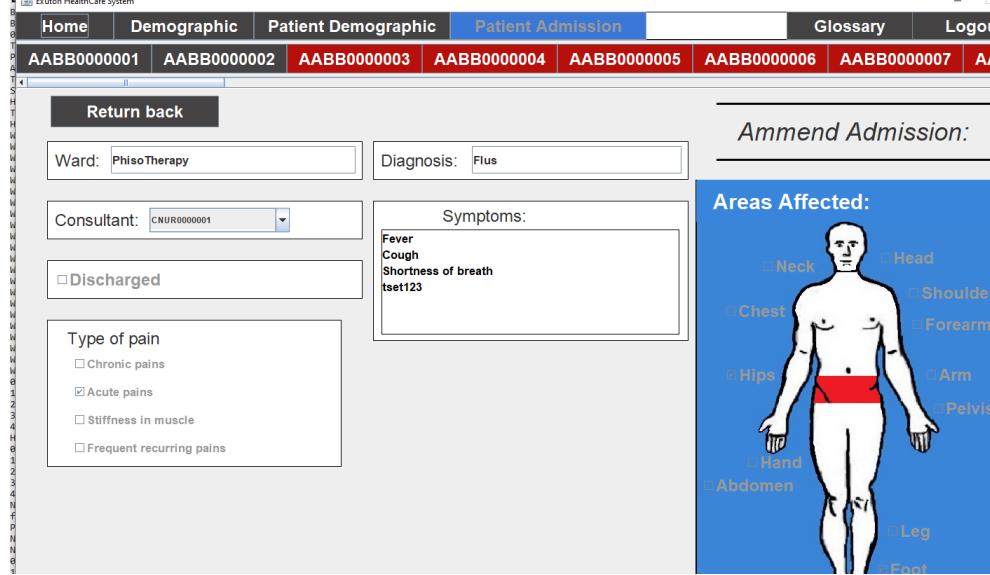
Test ID	19.1
Data Set	B1
Evidence	<p>AABB0000001, CNUR0000001, 19, Phi BABB0000001, 12:01, 20/03/2020, t</p> <p style="text-align: center;">AABB0000001</p> <p>Booking found for admission: AABB0000001 Got to initial date comparison Fri Mar 20 12 <u>Ward : PhisoTherapy</u></p> <p>1 <u>Date Of Admission: 23/01/2020</u> 2 <u>Cough</u> 3 <u>Shortness of breath</u> tset123</p> <p>NO booking found for admission: AABB0000002 NO booking found for admission: AABB0000003 NO booking found for admission: AABB0000004 NO booking found for admission: AABB0000005 NO booking found for admission: AABB0000006 <u>Appointment Date: 20/03/2020</u> NO booking found for admission: AABB0000007 NO booking found for admission: AABB0000008 NO booking found for admission: AABB0000009 NO booking found for admission: AABB0000010 <u>Appointment time: 12:01</u></p> <p style="text-align: center;">View Appointments</p> <p style="text-align: center;">Booking:</p> <p>20 March 2020 <u>View Dates</u> Room: E001</p> <p>12:00pm <u>View Times</u></p> <p><input checked="" type="checkbox"/> Automate Future Bookings</p> <p>Consultant: DR.J.Nurdin</p> <p>Please select a date and time to book an appointment, bookings can only be created 4 days in advance in order to retrieve relevant information. Bookings can no longer be edited later than 24 hours of the actual appointment.</p> <p style="text-align: center;">Cancel Booking Update Booking</p>
Actual Commentary	When I logged in as a staff account I then selected the desired patient account of PABB0000001. After this I proceeded to then view the first admission. When I was brought to the home panel, I checked the command line and saw that the booking was correctly retrieved from the above file of the user. From this I then saw in the contact bar for the admission that the appointment time and date were both visible indicating to me that they were correctly retrieved from file. After seeing this I then continued to view the booking panel. Here when the panel had loaded I saw all the desired information from the file in the correct fields. Because of this I will accept that the test was a success and will carry on.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test ID	19.3
Data Set	N/A
Evidence	 
Actual Commentary	<p>As you can see for this test's explanation little much is needed, however I will try and go as in-depth as possible. As you can see I started at the admission panel. In the middle part of the admission contact bar is the button view appointments, after pressing this the user was then moved to the booking panel, during this time the system used the current system admission instance to retrieve that admission's booking when the source was found both myself and the instance was brought to the panel. As we did the attributes where then assigned and displayed to me (see lower image). Because the user was able to move to the booking panel along with the correct booking instance we can call the test a success.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test Plan 20 Objective No. 20, View patient admissions

Test ID	Test Type	Purpose/Expected Output	Pass?
20.1	Functionality	When the staff account logs in and has selected a desired patient on the system, they will load all their patient information from the patient's file. Once the information has been read it then will be inserted into the correct instances of the system and will return the staff account the Admission panel along with all the instances available to them. Once the user has selected the desired admission, the panel will refresh and update all the relevant fields to contain the new information. Once this is done the user will see that the number of documents will also change. Finally when viewing the admission in more detail the system will prohibit accesses to modify fields that can only be done by the patient and or consultant.	Not performed
20.2	Validation	<i>No data is able to be used to perform the validation. Because of this the test is not needed and can be consequently omitted from the test plan.</i>	Not performed
20.3	Navigation	For this test the user will be initially at the admission panel of their desired patient (admissionHomepagePanel) once they get here the system should have already retrieved the instance we want to look at (see test 20.1) Once this has been done the user should then proceed to press the Edit admission button. Once they do this the instance and the patient should then be moved to the edit admission panel (EditAdmissionPanel), at this point all the components should also be generated. Once here the user should then see that the instance has all its attributes assigned to the corresponding fields of the panel. When this has finished the user should see all the data possible. The panel order should be as follows. admissionHomepagePanel - EditAdmissionPanel	Not performed

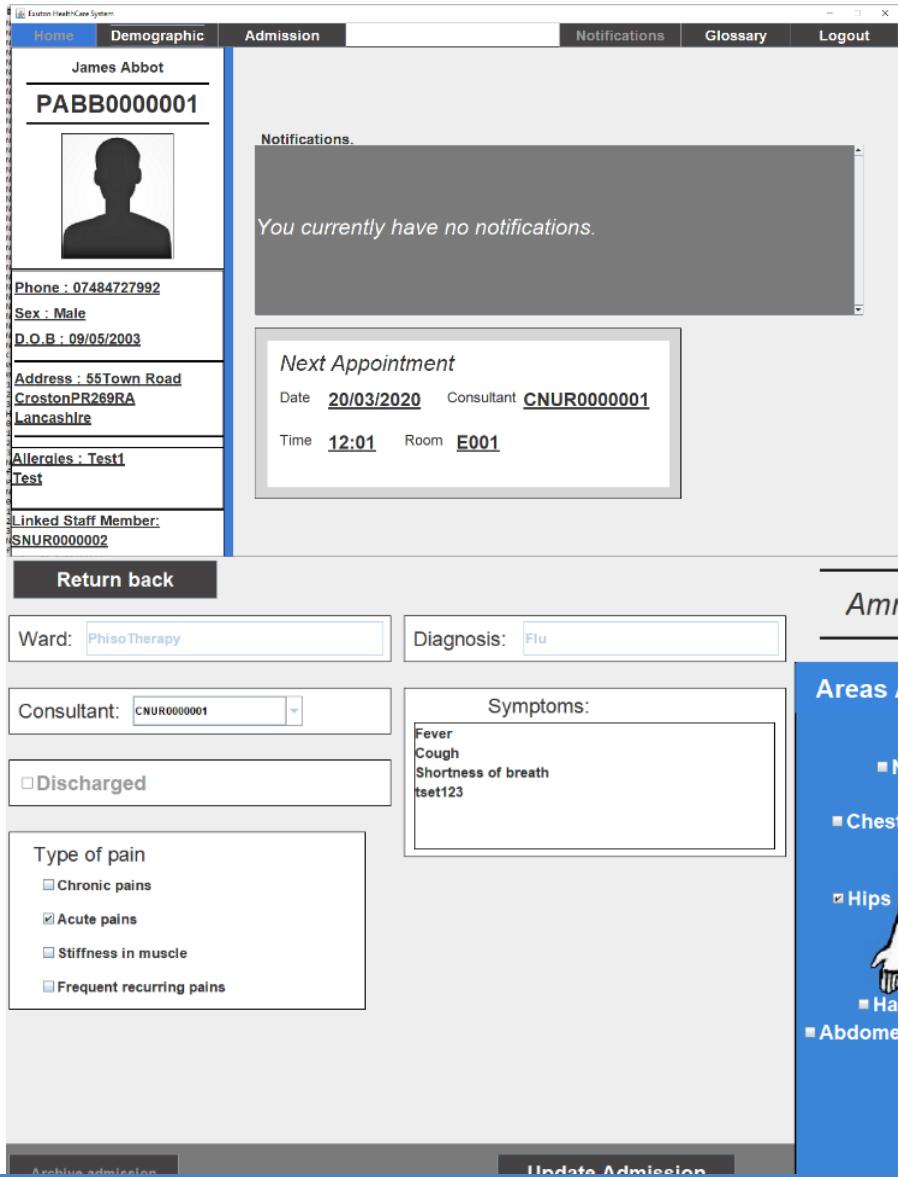
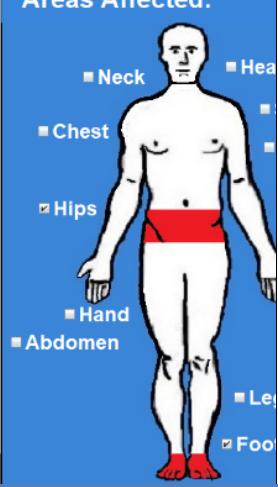
Test ID	20.1
Data Set	A1
Evidence	<p>Return back</p> <p>Ward: PhisoTherapy Diagnosis: Flu</p> <p>Consultant: CNUR000001</p> <p><input type="checkbox"/> Discharged</p> <p>Symptoms: Fever Cough Shortness of breath tset123</p> <p>Type of pain <input type="checkbox"/> Chronic pains <input checked="" type="checkbox"/> Acute pains <input type="checkbox"/> Stiffness in muscle <input type="checkbox"/> Frequent recurring pains</p> <p>Archive admission Update Admission</p> <p>Amend Admission:</p> <p>ABB0000001, CNUR000001, 19, PhisoTherapy, Fever@Cough@Shortness of breath@ts</p> <p>Exton HealthCare System</p> <p>Home Demographic Patient Demographic Patient Admission Glossary Logout</p> <p>AABB0000001 AABB0000002 AABB0000003 AABB0000004 AABB0000005 AABB0000006 AABB0000007 AABB0000008</p> <p>AABB0000001</p> <p>Ward : PhisoTherapy Date Of Admission: 23/01/2020 Cough Shortness of breath tset123</p> <p>Appointment Date: 20/03/2020</p> <p>View Appointments Appointment time: 12:01 Current Admission: Active</p> <p>Edit Admission</p> <p>Add legacy documents</p> <p>object... 00013 Consultant Notes DABB000014 Created on: 22/02/2020 View Document</p> <p>object... 00016 Consultant Notes DABB000017 Created on: 22/02/2020 View Document</p> <p>null DABB000015 [LEGACY] DABB000018 Created on: 22/02/2020 View Document</p> <p>[LEGACY] LEGACY.. DABB000018 Created on: 07/01/2020 View Document</p>
Actual Commentary	When I started the system I proceeded to select the desired patient (PABB0000001) after the account was selected the panel swapped to the admission panel, while it was doing this the instance of patient was retrieved. Not only this but every admission, document and booking associated with the account also. Once this was done I then proceeded check the contact bar, and as expected all the correct information for the admission was there, all the symptoms where present, the ward is correct and the date the admission was created was also in the correct format. Finally as I pressed the view admission button in the contact bar the view admission panel was generated along with all the components along with this all the correct items of data where assigned to the fields of the components. However the fields: symptoms, type of pain and body where all disabled. Because the staff had access to the patient's admission but was unable to amend more sensitive data I will declare the test a success.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

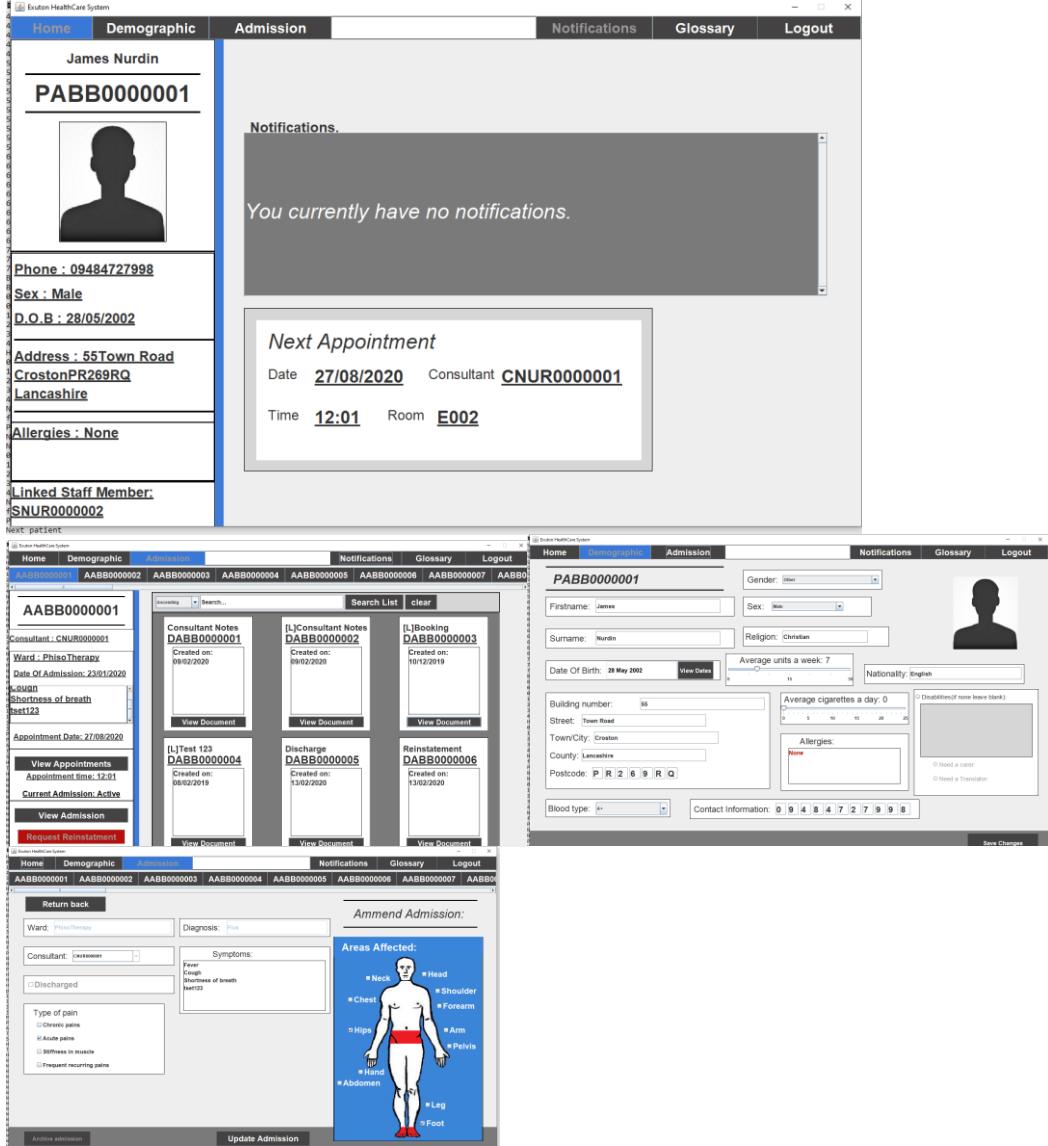
Test ID	20.3
Data Set	N/A
Evidence	 
Actual Commentary	<p>For this test when the user started the system they were in the admission homepage panel. At this point (evidence in test 20.1) the system will already have the admission instance in memory. When the I pressed the edit admission button I was moved from the panel admissionHomepagePanel to EditAdmissionPanel, when this occurred the admission also came with me and as a result when the panel loaded and all the components had been generated the system correctly managed to create the fields with the intended data. Because of this I we can accept the test and call it a success.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test Plan 21 Objective No. 21, Have patients view their Admissions and Demographic information

Test ID	Test Type	Purpose/Expected Output	Pass?
21.A1	Functionality (view admission)	When the patient logs in, the system should retrieve all their information. Starting with their demographic. At the beginning the system will pull the file and then assign the attributes from the file to the instance. It will then proceed to the admissions, all the attributes will be pulled first, after this the documents and bookings. Finally this information should then be passed into the GUI where it can be displayed. Once all this is done the Homepage is generated for the user. Here they should see their notifications along with the next appointment for them. Once they are done here they can go to the demographic where all their personal information is viewable.	
21.B1	Functionality (view Demographic)	For this test, after the patient has logged in they will be brought to their home panel during which the instance should have been initialised and read from file (see test 48). When this has occurred the user should then see the homepage consist of some variety of their information held in the file. After this the user should continue and press the demographic icon in the upper tab of the system. When they do this their instance of patient should then be brought with them to the demographic panel where all their information should then correctly be assigned to the text fields and areas. After this has been done the user should see all their information on this page.	
21.2	Validation	<i>No data is able to be used to perform the validation. Because of this the test is not needed and can be consequently omitted from the test plan.</i>	Not performed
21.3	Navigation	Regarding this test when the patient user starts the system, at the login panel, the system will then create an instance of the patient and then will move the user from the login panel (loginPanel) to the patient home screen (patientHomepagePanel). Once this has been done the user will then select either the Admission panel (admissionHomepagePanel) and then (EditAdmissionPanel) or the Demographic panel (demographicHomepagePanel). When they do this the system will then correctly respond to each situation by generating the correct panel along with passing the correct instance through with it. For a more basic plan the panel order should resemble one of these: loginPanel – patientHomepagePanel – admissionHomepagePanel - EditAdmissionPanel loginPanel -patientHomepagePanel - demographicHomepagePanel	

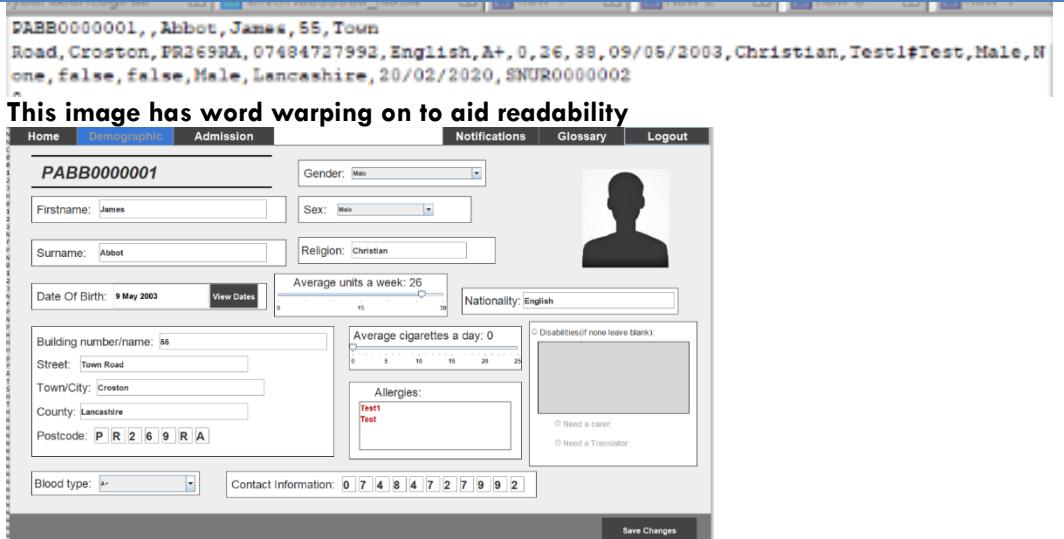
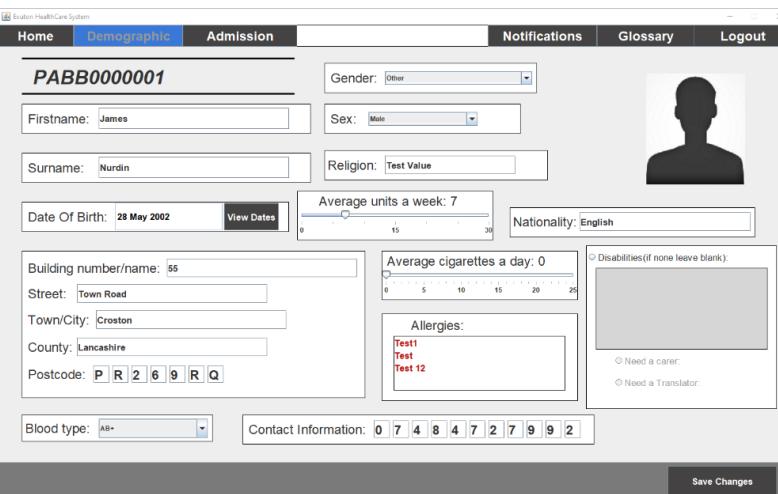
Test ID	21.A1
Data Set	D1/A1
Evidence	<p>PABB0000001, , Abbot, James, 55, Town Road, Croston, PR269RA, 07484727992, 0 AABB0000001, CNUR0000001, 19, PhisoTherapy, Fever@Cough@Shortness of breath</p>
Actual Commentary	When I logged onto the system, my instance was retrieved from file and as a patient I was greeted to the home screen which informed me that I had no notifications waiting to me and that my next appointment at 12:01 on the 20/03/2020 with CNUR0000001 in room E001. After this I then proceeded to the demographic panel. When I pressed the demographic button at the top of the page the system then used the retrieved instance and correctly assigned all the fields on the panel. As a result here I could see all the information I had entered when the account was created. Because of this as the system correctly generated all the fields and so we can accept this test and proceed.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test ID	21.B1
Data Set	D1/A1
Evidence	 <p>The screenshot shows the Eoston HealthCare System software interface. At the top, there is a menu bar with Home, Demographic, Admission, Notifications, Glossary, and Logout. The main area displays a patient profile for James Abbot (PABB0000001) with a placeholder image. Below the profile are sections for Phone (07484727992), Sex (Male), D.O.B. (09/05/2003), Address (55 Town Road, Croston PR269RA, Lancashire), Allergies (Test1), and Linked Staff Member (SNUR0000002). A 'Return back' button is located at the bottom left of this section. To the right, there is a 'Notifications' panel stating 'You currently have no notifications.' and a 'Next Appointment' panel showing a date of 20/03/2020, consultant CNUR0000001, time 12:01, and room E001. On the far right, there is a 'Ammend Admiss' section and a 'Areas Affected:' diagram.</p> <p>Areas Affected:</p>  <p>The diagram shows a human figure with various body parts labeled: Neck, Head, Chest, Hips, Hand, Abdomen, Leg, and Foot. The abdomen area is highlighted in red, indicating it is the primary area of concern or focus.</p>
Actual Commentary	<p>After pressing on the admission panel at the top of the patient homepage, I was brought to the first admission on the system which was active (ABB0000001) and then proceeded to view the admission information. When this occurred the system then started to the active instance and then passed the information to the field, this then caused the panel to assign all the correct attributes to the page .As expected, when I saw the panel the fields and components are correctly highlighted and viewable to the user. Because all my expectations have been met we will call the test a success and proceed to further testing.</p>
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test ID	21.3
Data Set	N/A
Evidence	 <p>The screenshot displays the Exoton HealthCare System interface. At the top, there is a navigation bar with links for Home, Demographic, Admission, Notifications, Glossary, and Logout. The main content area shows a patient profile for James Nurdin (PABB000001). The profile includes a placeholder image, basic details (Phone: 09484727998, Sex: Male, D.O.B.: 28/05/2002), address (Address: 55 Town Road, Croston PR269RQ, Lancashire), and allergies (Allergies: None). A section titled 'Linked Staff Member' lists CNUR000002. Below the profile, a 'Notifications' box states 'You currently have no notifications.' A 'Next Appointment' box shows a scheduled appointment for 27/08/2020 at 12:01 in Room E002, consultant CNUR000001. To the left, a sidebar shows a list of admissions (AABB000001 to AABB000008) and a detailed view of admission ABBB000001, which includes consultant notes, discharge details, and a booking entry. On the right, a detailed demographic form for James Nurdin is shown, including fields for gender, sex, surname, religion, date of birth, and various medical history and contact information fields.</p>
Actual Commentary	<p>After logging in I was initially greeted with the patient's homepage. Here I then proceeded to do two actions. Firstly I went and pressed then demographic button at the top of the page. This caused the system to then move me to the new panel along with the instance which was passed into the underlying methods which generated it. As result the panel successfully loaded with all the correct fields then being generated with the user. Because of this we can call this part of the test a success.</p> <p>Secondly I then returned back home where I then pressed the Admission button next to where the demographic button was pressed. This then caused the system to pass move me to the admission panel homepage where all my admissions where here. At this point I then pressed the view admission button in the contact bar for the admission. Finally I was then moved to the edit admission panel where I could see all the details regarding the admission in boxes. Because of this we can regard this aspect of the test as a success also and move on.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test Plan 22 Objective No. 22, Amend demographic information

Test ID	Test Type	Purpose/Expected Output	Pass?
22.1	Functionality	When the user logs in as a patient and navigates to the demographic, here they will see that the system already has the details written to the fields (as seen in test 21.1). Now the user will enter correct information over the old information. Whilst doing this making sure that the values are valid. After they have been entered they will press the update demographic button, now what should happen is that their file should be brought up and read from file and assigned to an array. After this the patient's demographic information should be updated. Not only this but the date of the last update should also be reset on the system also.	
22.2	Validation	Already been done please refer to test 1.2 for both the plan and resultant evidence. The reason that this test has been avoided is due to the fact that it would take an extra 10 tests to inform the reader that the same validation processes had occurred and returned the exact same results. While I normally will document tests for all objectives that require them, there is no need to re-document the entire process when the exact same validation is called, as the same inputs are also required from the system it furthers the point that a repeat would just prove to be unnecessary.	
22.3	Navigation	As the system produces no visual output to the user regarding any changes to the system or utilises any panel navigation as a form of acknowledgement, there is no need for any navigational testing whatsoever because of this we can miss out this test and proceed onwards to carrying the rest out.	Not performed

Test ID	22.1
Data Set	U1
Evidence	<p>This image has word warping on to aid readability</p>  <p>This image has word warping on to aid readability</p> 
Actual Commentary	<p>As expected when I launched the system, I attempted to alter the fields of information. Initially, I was met with all the fields of information I had on the account. After altering the fields of DOB, religion units consumed and postcode, I felt that enough information was edited after this point. While the amount edited would have no effect on performance it is just to demonstrate versatility of the feature. Regardless I pressed the update button and the fields where then used where their contents where used to update the instance. After this the updated instance was then passed into the update method, where the first line of the users file would be overwritten and then written back to its intended location. As seen in the images the contents of the file were successfully updated, along with the patient in real time. As a result I will regard the test as a success.</p>
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

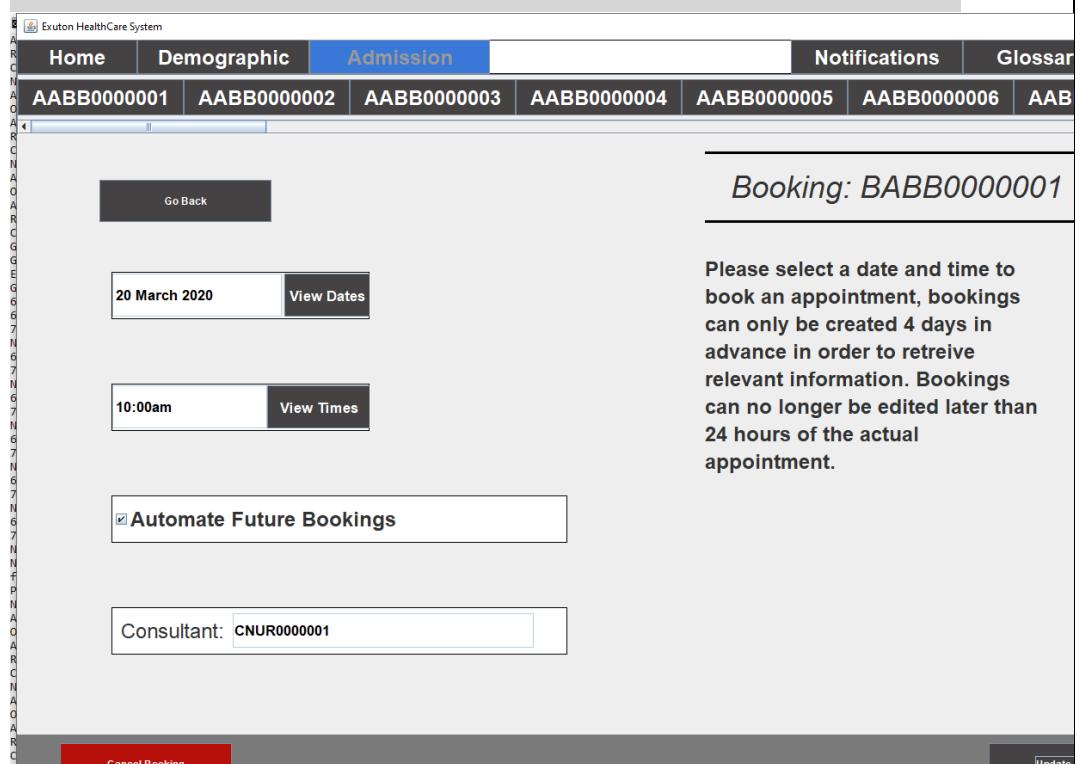
Test Plan 23 Objective No. 23, Validate information

Test ID	Test Type	Purpose/Expected Output	Pass?
23.1	Functionality	<p>For this test, I expect the validation method to be unique and act by an error by error basis. As a result the system would have a wide arsenal of methods at the end to be used when validating user data. When the value is passed through as a parameter the system should use this and compare it to any term necessary. The only outputs should be two fold. One: the return value should always be a boolean value. Two when the value is returned the system should expect the call method to generate a popup informing the user.</p>	
23.2	Validation	<p>For validation the entire point is to recognise that the input entered is valid or not, when the system passes the variable through to the checking method a comparison should be used to determine whether the system can approve that the input is correct or not. The return value should be boolean and be true for acceptable inputs and false for illegal values. The system should have the following checks available:</p> <ul style="list-style-type: none"> Length (less than, greater than or equal to) Data Type (String<letters><digits>) Presence Range Date checking Lookup “Not a character” 	
23.3	Navigation	<p>Following the data being validated by the system should then proceed to then generate a popup informing the user about the errors made. To add to this in terms of executing of methods the system should also proceed to terminate any current running programs and will either just return the method early or will call a “Continue” causing the loop to iterate again and request a valid input.</p>	
Evidence		<p>While not entirely necessary to fully document, the proof of functionality and validation for this feature is itself a means of validation for the rest of the system. What I mean by this is that the system utilises the validation methods provided by this objective. As a result I feel that there needs to be no visual proof that the validation methods work as they are used thoroughly throughout the system. Here I can argue that the functionality for each validation method works simply by referring to an individual validation test for instance 1.211, as it achieves the purpose of identifying erroneous data on the system it can't be wrong. If it was to fail, then the passing of null values would cause exceptions to be thrown, but as the methods work flawlessly no exception is yet to be thrown and hence can prove functionality for the features. As for visual navigation proof, every validation test is accompanied by an associative screen shot for evidence as you can see for every test a popup is generated, as dictated by the expectations. Because the system also correctly generates the visual output I can accept all three tests.</p>	

Test Plan 24 Objective No. 24, View bookings in entirety

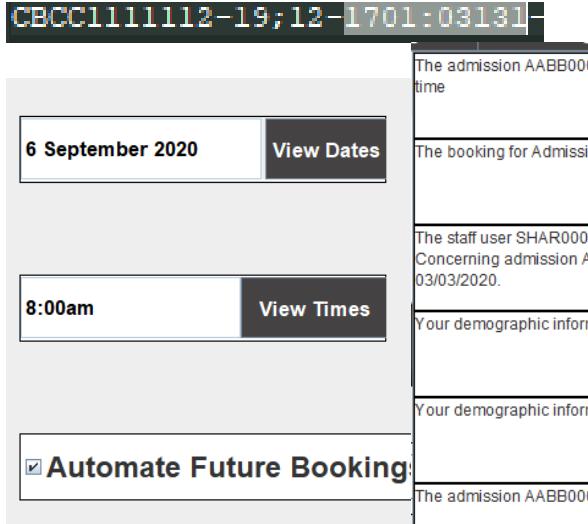
Test ID	Test Type	Purpose/Expected Output	Pass?
24.1	Functionality	When the user starts the test they should be located at the admission panel. When the admission was called the instance should have been requested and then read from file (see test 47) . During the call, the admission when being retrieved should also proceed to also retrieve the corresponding booking if it exists. When this occurs the system should retrieve the entire booking by splitting the array and then assigning the instances for the booking from the indexes. Once the end of the array has been found the system should then return the new admission to be assigned to the admission.	
24.2	Validation	<i>No data is able to be used to perform the validation. Because of this the test is not needed and can be consequently omitted from the test plan.</i>	Not performed
24.3	Navigation	When the instance has been successfully retrieved, the system will hold it in memory until it is needed. We will start the test just after the user has logged in and the instance has been generated, after the patient logs in the system will calculate the most recent booking approaching, once this has been found then the system will create a small box underneath the notifications. Here it will display the closest appointment to the user.	

Test ID	24.1
Data Set	B1
Evidence	PatientID PABB0000001 New Booking to be read:BABB0000001 At 10:01 On the 20/03/2020 Automated?true Room: PENDING ConsultantCNUR0000001
Actual Commentary	When I started the test I was located at the admission panel of the system, when I pressed the view button after that I then saw that the system then retrieved the booking from the instance, in this case the system used the instance of admission and then just called for the booking, as you can see from the screen shot all 7 attributes assigned to the booking were successfully obtained, just for proof the results where printed to the command line. Because of this as the user is able to see their attributes for the booking fully, we can accept the test and move onto the next test. While this test isn't a large one it is still important as it allows the testing to see if the instance can even be retrieved.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

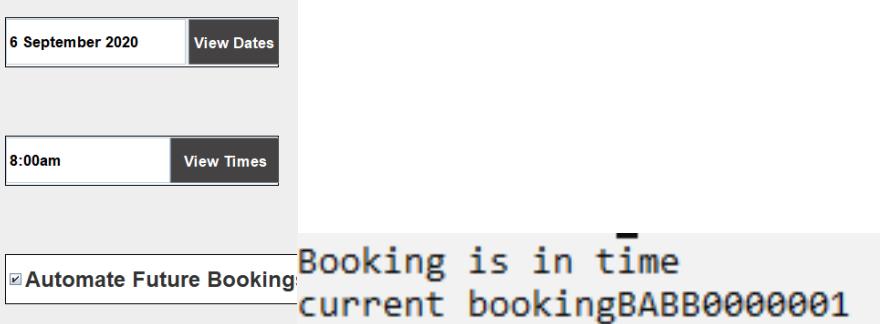
Test ID	24.3
Data Set	B1
Evidence	<p><i>Next Appointment</i></p> <p>Date <u>20/03/2020</u> Consultant <u>CNUR0000001</u></p> <p>Time <u>10:01</u> Room <u>PENDING</u></p>  <p>The screenshot shows a booking interface for a patient named BABB0000001. At the top, there's a navigation bar with links for Home, Demographic, Admission, Notifications, and Glossary. Below the navigation is a row of buttons with booking IDs: AABB0000001 through AABB0000006. The main area displays the booking details for BABB0000001, including the date (20 March 2020), time (10:00am), and consultant (CNUR0000001). There are buttons for 'View Dates' and 'View Times'. A note on the right says: 'Please select a date and time to book an appointment, bookings can only be created 4 days in advance in order to retrieve relevant information. Bookings can no longer be edited later than 24 hours of the actual appointment.' Below the booking details is a checkbox labeled 'Automate Future Bookings'. At the bottom, there are 'Cancel Booking' and 'Update' buttons.</p>
Actual Commentary	Now unlike test 24.1 we can actually show the graphical aspect of the objective which is essentially the main focus. Initially after logging in as the patient the system then proceeded to then retrieve the admission followed by the booking. When this occurred all the details concerning the most recent booking was then displayed me, when initially viewing the home page. After then moving to the booking panel I could then see the boolean state for the automatic booking along with the bookingID and a few of the other fields we have already seen. Because at this point I had seen all the attributes concerning the booking on the system, I will regard the test as a success allowing us to move on.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test Plan 25 Objective No. 25, Update bookings

Test ID	Test Type	Purpose/Expected Output	Pass?
25.1	Functionality	For this test, a lot of the core features stem from a similar test (18) regardless they overall serve different purposes. Here if the booking was expired, in the idea that the date was now in the past, the system on loading the admission should recognise this and will then delete the old booking and create a new one in 6 months' time. It should keep the rest of the information the same for the user. When the instance updates it should also write the new information to both the patient and consultant files. It should also generate a notification for the user to let them acknowledge that a change has occurred for that admission.	
25.2	Validation (date) Range	In order from preventing any unwanted new bookings we will need to validate the date and the instance before we pass the booking onto the booking method. When the admission is checked on the assigning of its attributes here we should validate to see whether we need to update the data. For this process to occur two attributes should be met: 1. The date is in the past 2. The automated attribute has been set to true.	
25.3	Navigation	As the feature revolves around only updating the patient instance if a certain few conditions have been met, the only visual output generated is a notification, which has already been tested in development testing, because of this we can omit the test and proceed with the testing	Not performed

Test ID	25.1													
Data Set	(An old booking on the system)													
Evidence	<p>Before</p>  <p>Next Appointment</p> <p>Date <u>07/03/2020</u> Consultant <u>CNUR0000001</u></p> <p>Time <u>08:01</u> Room <u>PENDING</u></p> <hr/> <p>After</p>  <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">The admission AABB0000001 has generated a new booking for 6 months time</td> <td style="text-align: center; padding: 5px;">X</td> </tr> <tr> <td style="padding: 5px;">The booking for Admission AABB0000001 has been updated</td> <td style="text-align: center; padding: 5px;">X</td> </tr> <tr> <td style="padding: 5px;">The staff user SHAR0000001 has retrieved a legacy document for you Concerning admission AABB0000001. The date it was created was the 03/03/2020.</td> <td style="text-align: center; padding: 5px;">X</td> </tr> <tr> <td style="padding: 5px;">Your demographic information has been updated.</td> <td style="text-align: center; padding: 5px;">X</td> </tr> <tr> <td style="padding: 5px;">Your demographic information has been updated.</td> <td style="text-align: center; padding: 5px;">X</td> </tr> <tr> <td style="padding: 5px;">The admission AABB0000001 has been updated with new information</td> <td style="text-align: center; padding: 5px;">X</td> </tr> </table>		The admission AABB0000001 has generated a new booking for 6 months time	X	The booking for Admission AABB0000001 has been updated	X	The staff user SHAR0000001 has retrieved a legacy document for you Concerning admission AABB0000001. The date it was created was the 03/03/2020.	X	Your demographic information has been updated.	X	Your demographic information has been updated.	X	The admission AABB0000001 has been updated with new information	X
The admission AABB0000001 has generated a new booking for 6 months time	X													
The booking for Admission AABB0000001 has been updated	X													
The staff user SHAR0000001 has retrieved a legacy document for you Concerning admission AABB0000001. The date it was created was the 03/03/2020.	X													
Your demographic information has been updated.	X													
Your demographic information has been updated.	X													
The admission AABB0000001 has been updated with new information	X													

Actual Commentary	Before the test was performed, I went to the file and saw that the encrypted data held in there had an “expired” date of the 07/03/20 (After being decrypted). Because of this I then knew the system would have to react to the feature by moving the date back. Because of this I then proceeded to move to the admission panel then followed by the booking panel. Once here I then saw that the date had changed as seen by the date box which held the date “6 September 2020”. Because of this I knew that an update had occurred to the instance, to test that the file also received the same update, I closed the system and looked at the patient file. As expected after decrypting the date, it was the 06/09/2020 because of this as it was 6 months in the future we can accept the test and move on.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test ID	25.2
Data Set	(An old booking on the system)
Evidence	<pre>if((currentBooking.automaticBooking==true)&&(panelOr { LocalDate currentDate = LocalDate.now(); //here we are checking for the automatic booking LocalDate currentbookingDate = currentBooking.co if(currentbookingDate.isBefore(currentDate)==tru { else { System.out.println("Booking is in time"); } } } </pre>  <p>6 September 2020 View Dates</p> <p>8:00am View Times</p> <p><input checked="" type="checkbox"/> Automate Future Booking</p> <p>Booking is in time current bookingBABB00000001</p>
Actual Commentary	While test 25.1 one was being conducted I also looked around the method and saw the condition statement for the booking to carry out the automotive process, because of this when it came to validating said condition I then made sure that the selection statement correctly generated the intended output regarding the data that had been passed through and also included an output for this proof, when the Booking from Test 25.1 had been passed through a later time afterwards, the following output also had occurred “Booking is in time”. As a result this indicates to me that the validation works well as only one of the two required states had been met, yet the system still performed what was expected from it. Because of this I will accept the test and move on
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test Plan 26A Objective No. 26A, Sort documents

Test ID	Test Type	Purpose/Expected Output	Pass?
26A.1	Functionality	When the user wants to sort their documents, initially the system will order the list the indexes of the desired order as incrementing from 0 to n-1. After the list's original order has been defined, depending on the order they want it in (ASC or DESC) the system will respectfully pass the list of indexes of the instances into quick sorts. Here the list should be rearranged into the desired order. Once the list has been ordered the algorithm will meet its base condition and return the list. The list of indexes is then passed into the system where the correct documents can be assigned to the correct index. When a user searches for an item is returned, the same process can occur on the list where the items should be placed into an ascending or descending order respectfully. (for a more detailed explanation see test 10 as the same method is used).	
26A.2	Validation	No data is able to be used to perform the validation. Because of this the test is not needed and can be consequently omitted from the test plan.	Not performed
26A.3	Navigation	We will start the test at the beginning of the patient admission panel (admissionHomepagePanel), here the user will be greeted by the graphical component containing all the documents for that admission. When the user selects the drop down box is selected the system will present two options to the user: ascending and descending. When this appears, the user should proceed to select the other option that isn't selected. This should cause the list to be passed through the sorting algorithm. When it is returned from here the user should see that the list is passed through to the same method used to initially create the original list. Finally the user should see the list of current data that has been sorted into the new order.	

Test ID	26A.1
Data Set	(List of documents)
Evidence	<pre> 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0 Currnet Pivot 16 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 7 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 3 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 5 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 11 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 9 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 13 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 14 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 20 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 18 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 22 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 28 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 26 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 30 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Currnet Pivot 31 Ascending sort </pre>

Actual Commentary	For this test, the system initially had me start at the admission homepage panel, here I was met with the list of documents which I had set into a descending order. After seeing this I then set the value in the combo box to ascending order. This caused the list of patient indexes to then be passed through to the quick sort. During each call the method would identify a pivot and then reorder it into the correct location, for proof I would print the current line, each time a pivot was set the system would then locate a value either side that was in the wrong place and move it over to the correct side so that a number higher than my pivot that was on the left hand side would be swapped with an item lower than the pivot but to the right of it. After this kept occurring the system would then recursively call the list to be reordered if it needed to be. At the end the correct list was returned to me.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

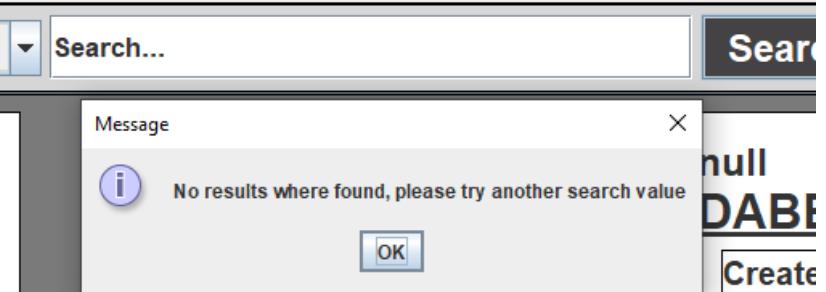
Test ID	26A.3
Data Set	(List of documents)
Evidence	

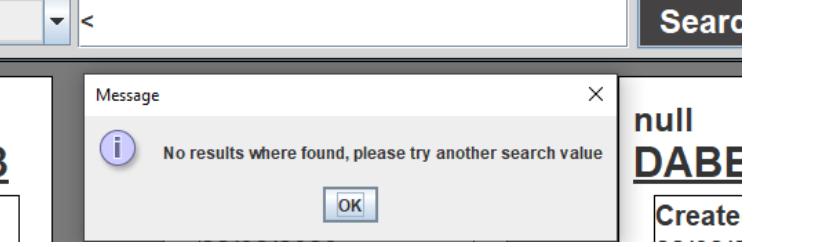
	(searched for the term consultant)
	
Actual Commentary	When I started the system I entered the desired admission after logging in. Here I was greeted with the original sorted list of documents; this is due to the sequential sort order given to the documents. After viewing that all the documents were in an ascending order I then proceeded then to order the list of items by selecting the descending item in the drop down menu. After it was pressed the list of indexes where passed into the descending quick sort and then after recursively ordering the items the list was returned to the original display method. As expected the list order was in descending order. When selecting a document I was also passed through to the correct document. After returning I then searched for the term "Consultant" and successfully got a list of ascending items (see test 26.B1) After repeating the process of requesting a descending order the list of searched items was then returned in the desired order. Because the system successfully ordered both instances I wanted items ordered I will accept the test as a success.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test Plan 26B Objective No. 26B, Search documents

Test ID	Test Type	Purpose/Expected Output	Pass?
26B.1	Functionality	When I start the system I will immediately go to the admission and enter the field I want to search for, after pressing the search button the system should then for every item in the array concatenate important fields that could be searched by. After all the items are concatenated the system should then perform a linear iteration through all the items each iteration the system should use the .contains() method to see if the value was is the item. If an item does exist, as the list is ordered by index rather than by instance the index of the item is then returned. This is because the position of the patient instance never changes but the index does. Anyway after all the items are compared and we have a list of indexes the system should then pass this through the main creation method which should generate the desired list.	
26B.21	Validation <Null>	While with 26.B1 we were testing functionality, here we are testing validation in this test the user will enter the above data set. The input here for the test should consist of null data. When entered the user should press the search button at the top corner of the grey box. When this occurs the data should then be passed through to a validation method, here the system should then recognise the null error and then return a boolean value of false. Once this occurs the system should then see the boolean and immediately terminate the search followed by the generation of a popup.	
26B.22	Validation <Type>	While with 26.B1 we were testing functionality, here we are testing validation in this test the user will enter the above data set. The input here for the test should consist of illegal strings such as text and symbols like "!". When entered the user should press the search button at the top corner of the grey box. When this occurs the data should then be passed through to a validation method, here the system should then recognise the type error and then return a boolean value of false. Once this occurs the system should then see the boolean and immediately terminate the search followed by the generation of a popup.	
26B.3	Navigation	As this objective is based around the actual searching for items in the list, there is no need to visually test the navigation aspect as the user does not have to load any new panels or graphical components, to add to this the system already tests the generation of documents thoroughly in software dev so there would be no need to further test that call method. Because of this we can skip this test.	Not performed

Test ID	26B.1
Data Set	"Consultant"
Evidence	
Actual Commentary	When I started the system I entered the desired document after logging in. Here I was greeted with the original sorted list of documents. From this I entered the item I wanted to search by "Consultant". After pressing search the important fields of the patient instances are concatenated together and then stored in the corresponding index. Then a for loop was ran comparing each index with the search value if it contained the search result the item was added to the list. After this the new list of indexes were passed through to the original call method. Here the new indexes successfully assigned the correct information to the indexes. As the list was originally in order so is the result. However if we want the other order we could by selecting it (see test 26.A1). Overall the system successfully returned the list of items that met the query and as a result I can proceed to the next test.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test ID	26B.21
Data Set	Validation (search field) <Null>
Evidence	 <p>A screenshot of a software application interface. At the top is a search bar with the placeholder "Search...". To the right of the search bar is a button labeled "Search". Below the search bar, there is a list of items. One item in the list has a red background and the word "null" written on it. Another item has a blue background and the word "DABE" written on it. A third item has a white background and the word "Create" written on it. A message dialog box is overlaid on the interface. The dialog box has a title "Message" and a message "No results where found, please try another search value". It contains an "OK" button.</p>
Actual Commentary	When I logged on I proceeded to enter the values set out in the expectation initially I left the field and pressed search, as expected the system then read the text and then searched the list of documents. After this it produced a popup saying that no value was found from the list of documents which it then instructed me to then try another search term, we can deduct from this that the value was passed through the search and then compared against the values held in the instances list of documents. Because of this, we can accept the test and move on to the next one.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test ID	26B.22
Data Set	Validation (search field) <Type>
Evidence	 <p>A screenshot of a software application interface. At the top is a search bar with the placeholder "<". To the right of the search bar is a button labeled "Search". Below the search bar, there is a list of items. One item in the list has a red background and the word "null" written on it. Another item has a blue background and the word "DABE" written on it. A third item has a white background and the word "Create" written on it. A message dialog box is overlaid on the interface. The dialog box has a title "Message" and a message "No results where found, please try another search value". It contains an "OK" button.</p>
Actual Commentary	Once is started the test I was greeted with the patient's admission home page. Once here the system then showed all the lists of documents to me. Here I then proceeded to then enter the search term "<" into the search bar, when this occurred the system this time accepted the value and then passed it through to the search. Here the system then concatenated all the terms and performed the search, see test 26.1. As a result of this the system detected no documents that met the query of the result and then returned a popup informing the user of the result that no values where found. As the search managed to accept a data type of string that was not a letter I will accept the test and call it a success,
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

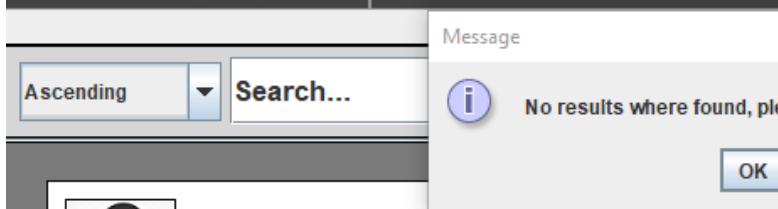
Test Plan 27 Objective No. 27, Print documents

Test ID	Test Type	Purpose/Expected Output	Pass?
27	Functionality	<i>Objective was omitted during development, this will require further explanation, please consult evaluation for this. The main reason though that the feature was omitted was to allow for further focus on more important aspects of the system, as I believe that it would have been better to have a more functional system rather than one that half works but can do more different features and processes.</i>	Omitted

Test Plan 28 Objective No. 28, Search for patients

Test ID	Test Type	Purpose/Expected Output	Pass?
28.1	Functionality	This test will initiate as soon as the employee logs in to the system. Once they do so they will see the list of all the patients available to them. From here the user should see the search bar above the list and should proceed then to enter the search term "Nurdin" into the field, after this has been done the user should then press the search button to the left of it. This should cause the fields attached to the patients to concatenate. And then be added to any array. The search term should then go through each item searching for any terms that contain the value. If it does it should then be added to the return array. Once all the items have been searched the array containing all the results that matched with the term are then returned back to the system	
28.2	Validation (search field) <Null>	When the user tries to enter an item to the search bar it will accept any input made by the user. The user should try to enter no information and leave it null, as a result the system should try to perform the search regardless and will eventually display an output informing myself that no value was found. When entered and searched for the array size when returned should equal 0, here a comparison should be done checking for this exact issue hence a corresponding popup should be showed to the user informing them that no items were found by the system. After the popup has appeared the field they entered should be cleared and then reset requesting the user to enter some text.	
28.3	Navigation	<i>As this objective is based around the actual searching for items in the list, there is no need to visually test the navigation aspect as the user does not have to load any new panels or graphical components, to add to this the system already tests the generation of patients thoroughly in software dev so there would be no need to further test that call method. Because of this we can skip this test.</i>	Not performed

Test ID	28.1
Data Set	(List of patient instances)
Evidence	<p>Ascending ▾ Search...</p> <p>Search List clear</p> <p>Ascending ▾ Nurdin Search List clear</p> <p>added line:PABB0000001,a,Nurdin,James, added line:PNUR0000006,1s99Vow,Nurdin,</p>
Actual Commentary	For this test as you can see from the first screen shot I was initially located at the admission home panel for the patient PABB000000, after I entered the search term of Nurdin I then saw that the list of items refreshed with their only being two cards left. Because of this I then checked command line and saw that the search had successfully occurred. The patients had their details concatenated and then passed through where many comparisons had occurred. For the items that met the search they were added to the array and then returned. Because the test achieved what I wanted it to we can call it a success
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test ID	28.2	
Data Set	Validation (search field) <Null>	
Evidence		
Actual Commentary	<p>When I logged on I proceeded to enter the values set out in the expectation initially I left the field and pressed search, as expected the system then read the text and then searched the list of patients. After this it produced a popup saying that no value was found from the list of patients which it then instructed me to then try another search term, we can deduct from this that the value was passed through the search and then compared against the values held in the instances list of patients. Because of this, we can accept the test and move on to the next one.</p>	
Further actions /Enquiry	As no errors have occurred we can move onto the next test.	
Rectified	N/A	

Test Plan 29 Objective No. 29, Consultant can view patient files

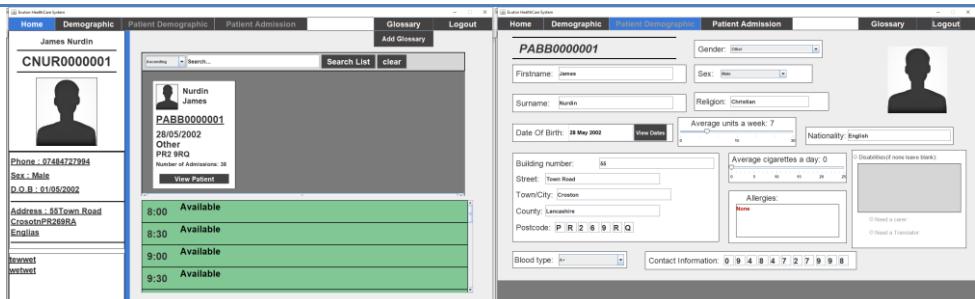
Test ID	Test Type	Purpose/Expected Output	Pass?
29.1	Functionality	On logging into the system the consultant should initially have all their patients ID's held in an array, when logged in the system should use these IDs to then pass through to the basic patient retrieval method, from here the ID should be used to generate a basic instance with no admissions or documents attached, this should be returned back to the user. After the consultant has then decided which patient they want to view at the system should then use this patient instance to then return the full account. Once this has occurred the system should then assign the current list of admissions on the Gui as the list held by the consultant not the patient.	Pass
29.2	Validation	No data is able to be used to perform the validation. Because of this the test is not needed and can be consequently omitted from the test plan.	Not performed
29.3	Navigation	Using the same starting point as test 29.1 After logging in the basic patient instance should then be passed through to the staff homepage (staffHomepagePanel) . Here the system should then generate the list of patients, from this the user proceed to select the patient they want to view. This will then cause the full retrieval of the patient instance and once done the new instance and consultant should then be passed through to the admission homepage panel (admissionHomepagePanel) where all the patient's information should then be viewable to them. The panel order should be as follows: loginPanel – staffHomepagePanel - admissionHomepagePanel	Pass

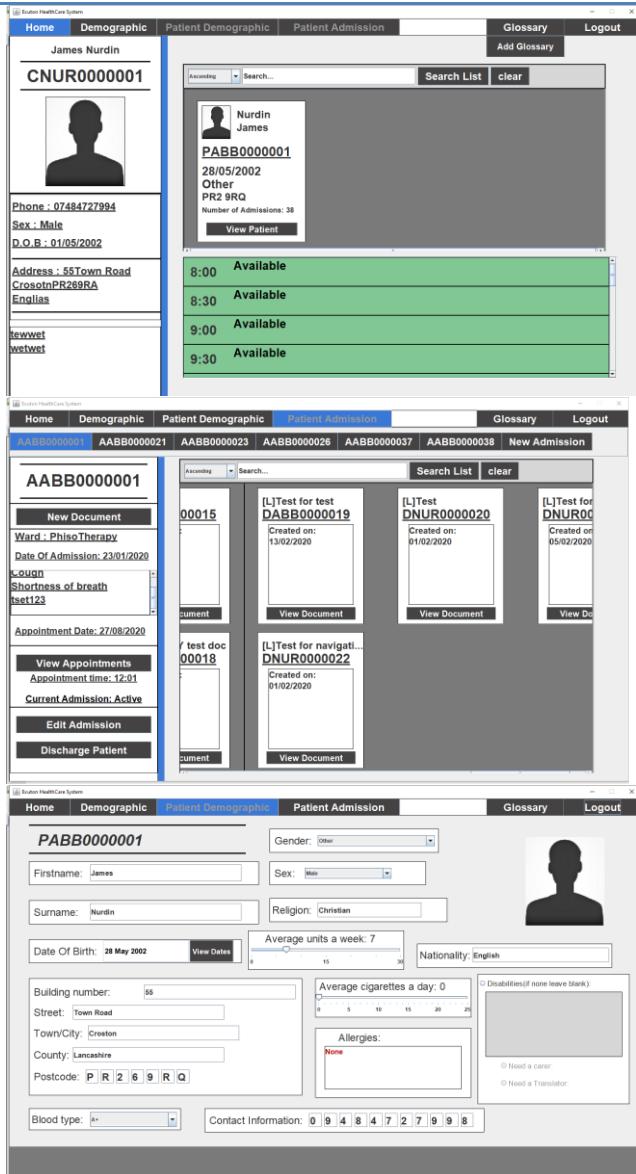
Test ID	29.1
Data Set	U1
Evidence	<p>Basic patient details retrieved:PABB0000001,Nurdin,James,PR269RQ</p> <div style="border: 1px solid black; padding: 10px;">  <p>Nurdin James</p> <p>PABB0000001</p> <p>28/05/2002 Other PR2 9RQ</p> <p>Number of Admissions: 39</p> <p>View Patient</p> </div>
Actual Commentary	At the start of the test I was located at the login panel, after pressing login the system then performed the process of retrieving the consultant (see test 49), after this had occurred in the system, I could see a list of all the patient instances. From here the system generated all the patient's basic information on the system. I then continued to then press the desired patient's button, when this occurred the system then fully retrieved the patient's information from the file, here all the admissions documents and bookings were also initialised along with the demographic information. Because of this I will accept the test and can call it a success.
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test ID	29.3								
Data Set	U1								
Evidence	<p>Nurdin James</p> <p>PABB0000001</p> <p>28/05/2002 Other PR2 9RQ Number of Admissions: 39</p> <p>View Patient</p> <table border="1"> <tr><td>8:00</td><td>Available</td></tr> <tr><td>8:30</td><td>Available</td></tr> <tr><td>9:00</td><td>Available</td></tr> <tr><td>9:30</td><td>Available</td></tr> </table> <hr/> <p>AABB0000001</p> <p>New Document</p> <p>Ward : Temp</p> <p>Date Of Admission: 23/01/2020</p> <p>Symptoms: This That</p> <p>Appointment Date: 17/03/2020</p> <p>View Appointments Appointment time: 13:01 Current Admission: Active Edit Admission Discharge Patient</p> <hr/> <p>Consultant Notes DABB0000001 Created on: 09/02/2020 View Document</p> <p>[L]Consultant N. DABB000000C Created on: 09/02/2020 View Document</p> <p>[L]Test 123 DABB0000004 Created on: 08/02/2019 View Document</p> <p>Discharge DABB000000C Created on: 13/02/2020 View Document</p>	8:00	Available	8:30	Available	9:00	Available	9:30	Available
8:00	Available								
8:30	Available								
9:00	Available								
9:30	Available								
Actual Commentary	For this test the I was initially located in the login panel, after logging in the system then retrieved the basic fields for the patient's demographics. This then allowed the system to generate the consultant entity's homepage. Here you can see that from test 29.1 the only instance of patient the consultant CNUR00000001 had was PABB00000001. This current instance of the patient would only have the attributes that were visible to the user. After choosing this patient the system then passed the instance to the retrieval method, where the rest of the patient's attributes were retrieved see test 47. This then resulted in me being relocated to the final panel of the admission homepage where I could see all of the file. Because of this I will accept the test and move on.								
Further actions /Enquiry	As no errors have occurred we can move onto the next test.								
Rectified	N/A								

Test Plan 30 Objective No. 30, View patient Demographic information

Test ID	Test Type	Purpose/Expected Output	Pass?
30.1	Functionality	At the start of the system the consultant should select a patient from the options available, when they do this the system should then pull the patient directly from file and create an instance of them (see test 48). When they do this the system should also then display the Admission homepage of the patient for the consultant. This should then allow consultant to then move to the patient demographic. When they do the system should then display every attribute the patient has to them, however unlike the normal admission panel the save button should be hidden from view.	
30.2	Validation	<i>The test is not needed as the objective for this part requires no user input.</i>	Not performed
30.3	Navigation	When the user starts the system they will log in as a consultant. After this they will then proceed to the desired patient and select them on the consultant homepage. After this the system should then proceed and generate the patient's admission page (admissionHomepagePanel). Once here the user should then move to the patient demographic (demographicHomepagePanel), to do this they should press the patient demographic button at the top of the frame, which at this point as the consultant has selected a patient should now be enabled. Because of this the system should move the patient one more time to the demographic panel (demographicHomepagePanel). The panel order should be as follows: admissionHomepagePanel - demographicHomepagePanel	

Test ID	30.1	
Data Set	P1	
Evidence	 <p>found a patient PatientID PABB0000001</p> <p>patient details retrieved:PABB0000001,Nurdin,James,PR269RQ</p>	
Actual Commentary	<p>For this test as you can see when I logged in as the consultant I was greeted to only one patient. After selecting the patient I was then moved to their admission homepage. Here I minimised the program and looked at the command prompt and saw that the instance has been successfully identified then retrieved. After returning back to the system I then moved to the demographic page, by pressing the button in the top corner. After doing this the system passed all the information into the correct fields, because of this I could see all my demographic information, to add to this also, the system also removed the save button at the bottom of the screen preventing the consultant from editing the patient's personal information. Because of this I will call this test the success and move on.</p>	
Further actions /Enquiry	<p>As no errors have occurred we can move onto the next test.</p>	
Rectified	N/A	

Test ID	30.3
Data Set	P1
Evidence	
Actual Commentary	<p>Once the system was started and I logged in as a consultant I was then greeted with my homepage. From here I then selected the patient PABB000001 from the list of available options and then saw that I was moved from the consultant homepage to the patient admission page. Here I could see that the upper buttons had now been enabled as I could select the patient demographic button. Doing exactly this I was then moved to the patient account's demographic panel. Here when I loaded in I saw that all the components had been generated correctly and that all the information from the patient instance was located in these fields. Because of this I will regard the test as a success and move onto the next objective.</p>
Further actions /Enquiry	As no errors have occurred we can move onto the next test.
Rectified	N/A

Test Plan 31 Objective No. 31, Sort admission

Test ID	Test Type	Purpose/Expected Output	Pass?
31.1	Functionality	Unfortunately this objective has been removed from the system due to the fact that the admission list no longer needed to be sorted. This came possible due to the large backend changes the came through during the redesign of the system during the post prototype phase of the system where the changes made to file handling meant that it was now possible to no longer sort the list into an order and because of this the objective was still recorded down but was forgotten to be noted as being omitted.	
31.2	Validation	The test is not needed as the objective is no longer being used in the system	
31.3	Navigation	The test is not needed as the objective is no longer being used in the system	

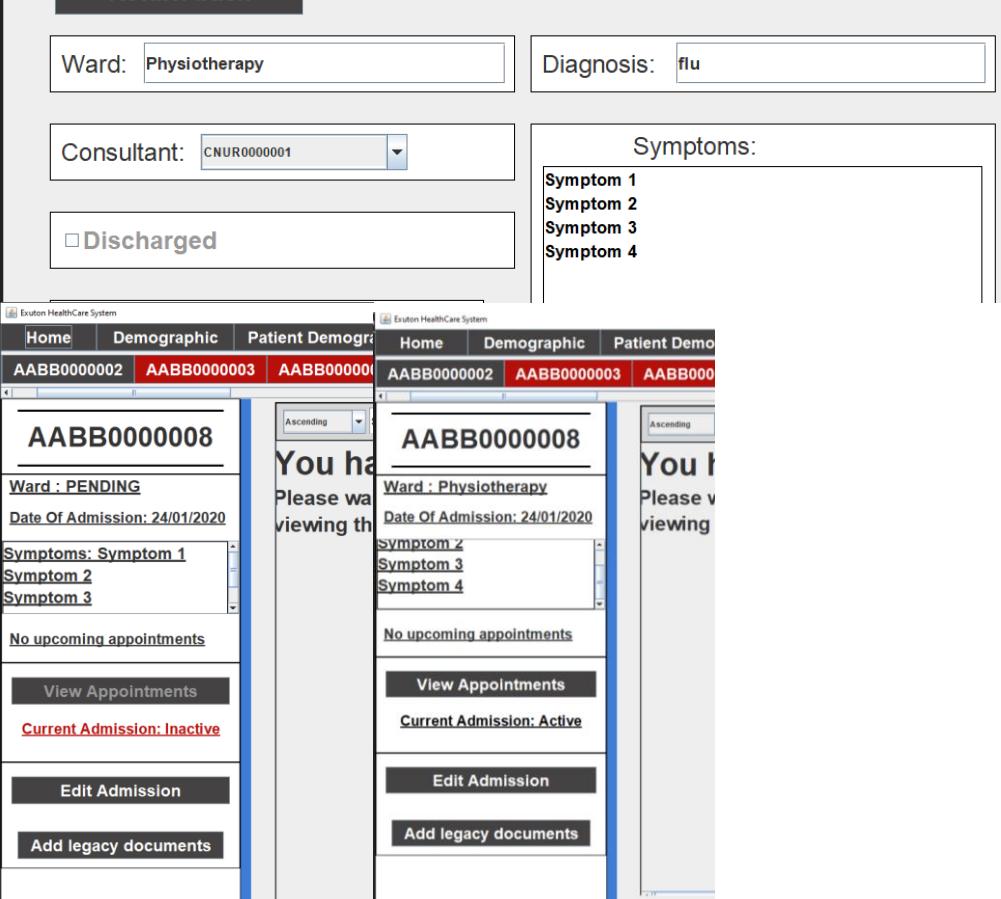
Test Plan 32 Objective No. 32, Edit Prescriptions

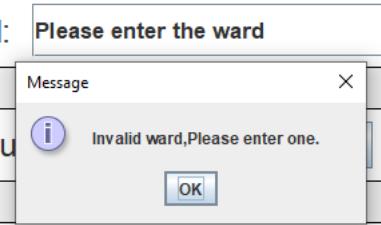
Test ID	Test Type	Purpose/Expected Output	Pass?
31.1	Functionality	Unlike the last objective where I had forgot to exclude the feature during PPROD, this time the objective was already documented as omitted back then, due to the fact that the prescription document was already in place we did not need two interfaces for editing prescriptions. Because of this we can move onto the next objective	
31.2	Validation	The test is not needed as the objective is no longer being used in the system	
31.3	Navigation	The test is not needed as the objective is no longer being used in the system	

Test Plan 33 Objective No. 33, Add Admission information (Consultant)

Test ID	Test Type	Purpose/Expected Output	Pass?
33.1	Functionality	When the user enters the page they should be greeted with the edit panel and the information they would like to edit, in this case we will test changing the basic information regarding the employee based fields like the ward, diagnosis and consultant. The more advanced features like changing consultants will be tested in depth further (see test 47.1) at a later point. After the information has been entered the system will then assign all the values to the instance and then proceed to write it to file, when it does it should attempt to locate the index the admission occurs at, once found it will overwrite the old details with the new. Once done the user should then be brought back to the home admission panel.	
33.211	Validation (Ward) <Null>	When starting the test the patient should be located at the admission homepage panel. After selecting the edit admission button the user should be relocated to the desired panel. After the consultant should then see that field for the ward has been left with the term "PENDING". Once they see this they should then proceed to remove the old text and leave it blank, after doing this the consultant should then choose the button update admission. After this a validation method should be performed on the field, as it is empty the system should return false and immediately terminate the process of updating the admission.	
33.212	Validation (Ward) <Type>	Here when the user starts the method they will be in the admission panel. After pressing the edit admission button they should be at the admission details panel. After the consultant should then see that field for the ward has been left with the term "PENDING". Here they should proceed to clear this value and replace it with the character "!". When this has been done the user should press the update Booking button, when this occurs the system should pass the value through a type validation method. As the field contains the character which is prohibited the system will return false and will cause the update method to terminate followed by the generation of a popup informing the user of the error.	

33.213	Validation (Ward) <Extreme>	Once the user starts the test they will be located at the admission homepage. From here they will get to the intended panel by choosing the edit admission button. This will move them to the panel and will generate all the necessary components to perform the test. When this has finished the consultant should see in the ward text field that the text is empty by being denoted by the words "PENDING". When they see this they should clear the text by selecting the field and then should proceed to enter the character "A" at least 26 times. Next the consultant should select the update admission button. This input will be passed through the validation method and when the system sees it contains too many characters the system should then return the boolean value false and terminate the updating of the admission followed by the generation of a popup.	
33.221	Validation (Diagnosis) <Null>	When starting the test the patient should be located at the admission homepage panel. After selecting the edit admission button the user should be relocated to the desired panel. After the consultant should then see that field for the diagnosis has been left with the term "PENDING". When the consultant sees this they should then proceed to clear the field and press the update admission button. When this occurs the system will then pass the value into the validation method. As the field is empty the presence should recognise this issue then return a boolean value of false. Coming from this the system should then terminate the updating of the admission and generate a popup informing the user of the error.	
33.222	Validation (Diagnosis) <Type>	Here when the user starts the method they will be in the admission panel. After pressing the edit admission button they should be at the admission details panel. When this has finished the consultant should see in the Diagnosis text field that the text is empty by being denoted by the words "PENDING". Here they should proceed to clear this value and replace it with the character "!". When this has been done the user should press the update Booking button, when this occurs the system should pass the value through a type validation method. As the field contains the character which is prohibited the system will return false and will cause the update method to terminate followed by the generation of a popup informing the user of the error.	
33.223	Validation (Diagnosis) <Extreme>	Once the user starts the test they will be located at the admission homepage. From here they will get to the intended panel by choosing the edit admission button. This will move them to the panel and will generate all the necessary components to perform the test. After the consultant gets here they should see that the field of the diagnosis contains the text "PENDING". When they see this they should clear the text by selecting the field and then should proceed to enter the character "A" at least 26 times. Next the consultant should select the update admission button. This input will be passed through the validation method and when the system sees it contains too many characters the system should then return the boolean value false and terminate the updating of the admission followed by the generation of a popup.	
33.23	Validation (Consultant) <Lookup>	When starting the test the patient should be located at the admission homepage panel. After selecting the view admission button the user should be relocated to the desired panel. Once here they should proceed to the consultant box with the combo box, when they select this a list of all the active consultants will appear in the list along with the word "PENDING" at the top. Once this does the consultant should then attempt to select the term pending and then press the update admission button. When it does the system should then see that the consultant set an erroneous value and the system should return the boolean value false and a popup value.	
33.3	Navigation	From the patient's admission homepage the consultant will navigate to the desired admission, after this the consultant will then move to the Admission information panel for the respective admission. Once selected the system should pass the admission instance through with the user and generate all the components on the panel. Once this has occurred the consultant should observe all the fields available to them to enter contain the text "PENIDNG". They will then update the fields and then press the update button this will update the instance (See test 33.1) and will return the consultant home. The panel order should be as follows: admissionHomepagePanel – EditAdmissionPanel - admissionHomepagePanel	

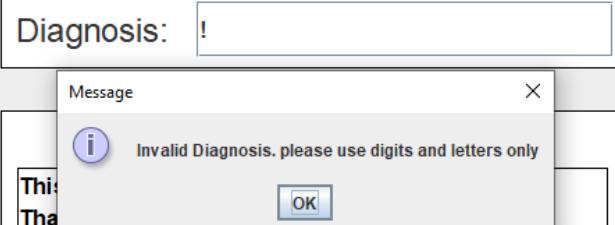
Test ID	33.1
Data Set	A3
Evidence	 <p>The screenshot shows a healthcare system interface with two main panels. The top panel contains fields for Ward (Physiotherapy), Diagnosis (flu), Consultant (CNUR000001), and a Discharged checkbox. To the right is a Symptoms section listing Symptom 1 through Symptom 4. Below this is a database log table with three columns: Home, Demographic, and Patient Demographic. The log shows entries for patient IDs AABB000002, AABB000003, and AABB000008. The bottom panel displays detailed patient information for ABB000008, including Ward (PENDING), Date Of Admission (24/01/2020), and symptoms (Symptom 1, 2, 3). It also shows appointment status (No upcoming appointments) and admission status (Current Admission: Inactive). Buttons for View Appointments, Edit Admission, and Add legacy documents are present. The log at the bottom of the interface lists several entries, with the last one being ABB000008, CNUR000001, 0, Physiotherapy.</p>
Actual Commentary	<p>When I logged into the consultant account I then proceeded to move to the desired admission. Once here I then decided the admission in particular I wanted to add to and then selected it. Once I did this I then pressed the Edit admission button located in the contact bar, after doing so I was then moved to the admission information panel where I could see more details regarding the admission. Once here I could see that all the fields contained the word "PENDING". From here I then went through each field and updated the terms. Finally after doing this I pressed the update admission button which caused the items to be passed through a validation method which came back true and replaced the old instance with the new fields, after this the process also updated the consultants file (See test 46), finally as I went to inspect the file I could see that it worked. Because of this I will accept the test.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

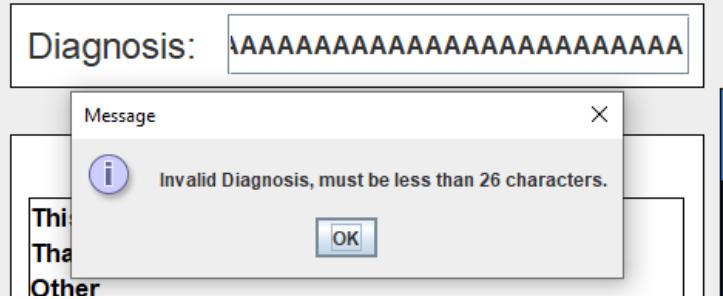
Test ID	33.211
Data Set	Validation (Ward) <Null>
Evidence	<p>Ward: <input type="text"/></p> 
Actual Commentary	For this test I was initially at the patient's admission panel. When I was here I then proceeded to press the Edit admission button, which in result caused me to move to the view admission panel. In the new panel I could see that the details contained the word "PENDING". So for ever field except the ward I correctly updated them. As for the Ward I left it blank. Then I pressed the update admission button which passed the field through a presence checker. As the term was null the method returned false and caused the update method to terminate and generate a popup informing me of the error. Because of this I will accept the test.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

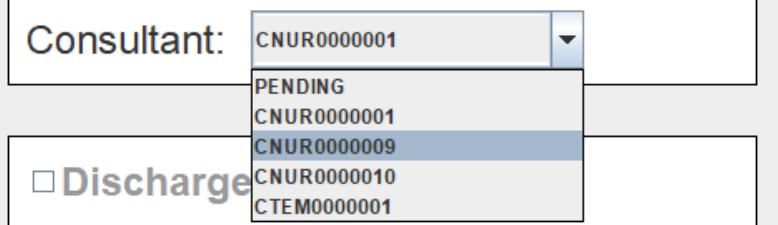
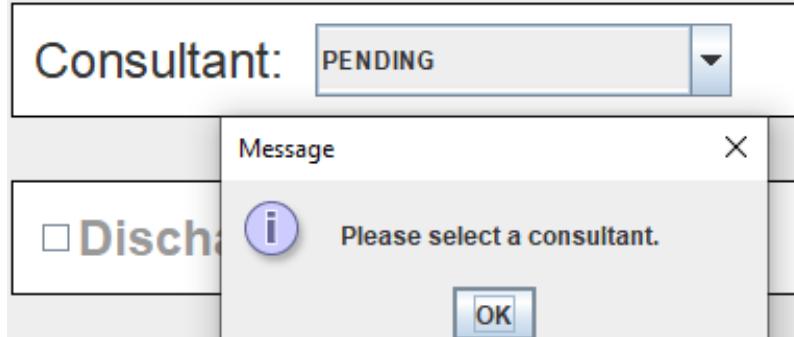
Test ID	33.212
Data Set	Validation (Ward) <Type>
Evidence	<p>Ward: !</p> 
Actual Commentary	When I logged into the consultant account I then proceeded to move to the desired admission. Once here I then decided the admission in particular I wanted to add to and then selected it. After this I was met with all the fields with the editable ones containing the text "PENDING". After seeing this I then started to fill in all the other fields except the ward, for this one I entered the character "!". Next I then pressed the update button which passed all the data through a type validation method. As the data was invalid the method returned the boolean value false and returned the method updating the admission and finally created a popup informing me of the error. Because of this I will accept the test and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

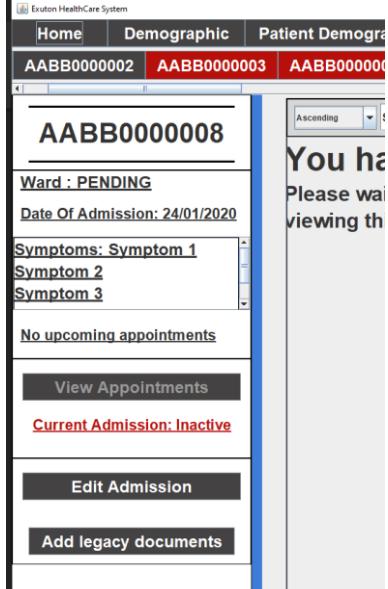
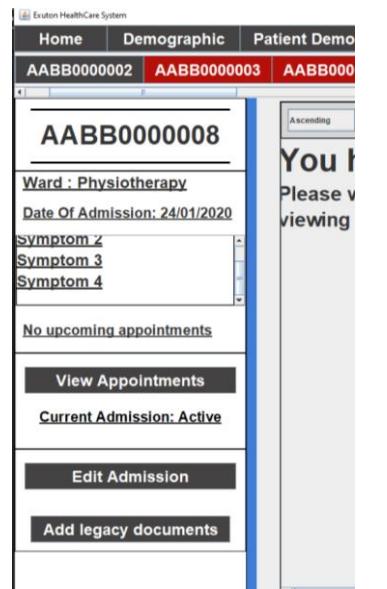
Test ID	33.213
Data Set	Validation (Ward) <Extreme>
Evidence	<p>Ward: AAAAAAAAAAAAAAAAAAAAAA</p>
Actual Commentary	<p>For this test I was initially at the patient's admission panel. When I was here I then proceeded to press the Edit admission button, which in result caused me to move to the view admission panel. Once here I was met with all the fields with the editable ones containing the text "PENDING". I then proceeded to enter all the fields with the correct data, but for the ward I then proceeded to enter the character "A" 26 times. After doing so I then pressed the update admission button, which would have passed all the fields through the length validation method. As the input exceeded the input the system saw the error and returned the boolean value false and terminated the updating of the admission and created a popup. Because of this I will accept the test.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	33.221
Data Set	Validation (Ward) <Null>
Evidence	<p>Diagnosis: Please enter the Diagnosis</p>
Actual Commentary	<p>For this test I was initially at the patient's admission panel. When I was here I then proceeded to press the Edit admission button, which in result caused me to move to the view admission panel. In the new panel I could see that the details contained the word "PENDING". Here similar to test 33.211 I left the diagnosis field and then proceeded to enter the rest of the information. Once done I then selected the update admission button, at this point the system then passed the field through the presence validation check. As the data was null the method returned the boolean value false and returned the method updating the admission and finally created a popup informing me of the error. Because of this I will accept the test and move on.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	33.222
Data Set	Validation (Ward) <Type>
Evidence	<p>Diagnosis: !</p> 
Actual Commentary	When I logged into the consultant account I then proceeded to move to the desired admission. Once here I then decided the admission in particular I wanted to add to and then selected it. After this I was met with all the fields with the editable ones containing the text "PENDING". From here I then proceeded to enter the character "!" into the diagnosis field and then entered the remaining information as normal. After this I then pressed the update admission button. This caused the system to then pass the information into the validation type method. As the data contained an illegal character the method returned the boolean value false and returned the method updating the admission and finally created a popup informing me of the error. Because of this I will accept the test and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	33.223
Data Set	Validation (Ward) <Extreme>
Evidence	<p>Diagnosis: AAAAAAAAAAAAAAAAAAAAAA</p> 
Actual Commentary	For this test I was initially at the patient's admission panel. When I was here I then proceeded to press the Edit admission button, which in result caused me to move to the view admission panel. Once here I was met with all the fields with the editable ones containing the text "PENDING". I then proceeded to enter all the fields with the correct data, but for the diagnosis I then proceeded to enter the character "A" 26 times. After doing so I selected the update admission button at the bottom of the panel. As a result the system used the fields and then passed them through a length validation method. As the data exceeded the limit the method returned the boolean value false and returned the method updating the admission and finally created a popup informing me of the error. Because of this I will accept the test and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

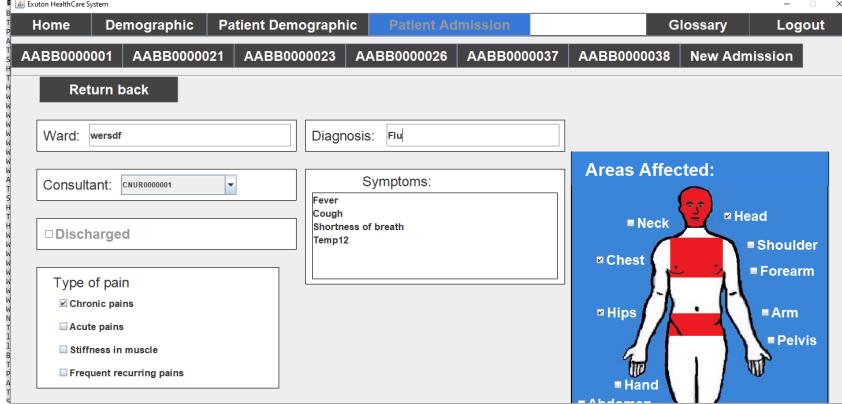
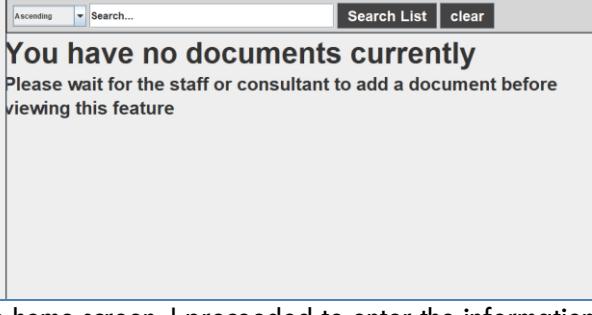
Test ID	33.23
Data Set	Validation (Ward) <Lookup>
Evidence	<p>Consultant: <input type="text" value="CNUR0000001"/></p> <p>PENDING CNUR0000001 CNUR0000009 CNUR0000010 CTEM0000001</p> <p><input type="checkbox"/> Discharge</p>  <p>Consultant: <input type="text" value="PENDING"/></p> <p>Message X</p> <p><input type="checkbox"/> Discharge i Please select a consultant.</p> <p><input type="button" value="OK"/></p> 
Actual Commentary	When I logged into the consultant account I then proceeded to move to the desired admission. Once here I then decided the admission in particular I wanted to add to and then selected it. After this I was met with all the fields with the editable ones containing the text "PENDING". After seeing this the I entered all the correct information excluding the consultant drop down box. After pressing the update admission button the value was passed through to a presence validation method. As the data was to be considered null the method returned the boolean value false and returned the method updating the admission and finally created a popup informing me of the error. Because of this I will accept the test and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	33.3
Data Set	N/A
Evidence	  <p>Ward: PENDING</p> <p>Ward: Physiotherapy</p> <p>Current Admission: Inactive</p> <p>Current Admission: Active</p> <p>Edit Admission</p> <p>Add legacy documents</p> <p>Ward: PENDING</p> <p>Diagnosis: PENDING</p> <p>Consultant: PENDING</p> <p>Symptoms:</p> <p>Symptom 1</p>
Actual Commentary	For this test I initially was at the patient Admission homepage. Once here I then proceeded to press the Edit admission button and was transported to the view admission panel. Once here I could see that all the fields here contained the correct values (see test 33.1). From here I then proceeded to enter all the correct information for one last time and then pressed the update admission button. As expected the system returned true from the validation methods and then successfully updated the instance. Finally the system then returned me home where I could also see that the update already occurred in real time as the ward had updated. Because of this we can accept the test.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test Plan 34 Objective No. 34, Edit Admission information (Patient)

Test ID	Test Type	Purpose/Expected Output	Pass?
34.1	Functionality	For this test when the user starts the objective they will be greeted by the patient homepage here they should move to the admission panel and then select the admission they want to amend. When the desired admission has been loaded the user will select the View admission button. Here the panel will load with their information regarding the admission, here the patient will then proceed to alter the information regarding the panel by using data set A3. Once this has been achieved the user will then proceed to press the button for the update admission. After this the system should retrieve the fields and then pass them through the validation methods. Once they come back as true the instance should update following an update of the values in file. Once done the user is returned home.	
34.211	Validation (Symptoms) <Null>	Here when the user starts the method they should be in the admission panel. After pressing the view admission button they should be at the admission details panel, where the desired instance has been passed through also. At this point the patient should see that some information is already present in the fields. Now they will proceed in removing the data if present in the symptoms field. When this has been done they will now press the update admission button, this should cause the field to be passed through the validation method. As the item is null the system should identify the issue and then immediately return false, this will cause the updating method to terminate early and will generate a popup.	
34.212	Validation (Symptoms) <Type>	When starting the test the patient should be located at the admission homepage panel. After selecting the view admission button the user should be relocated to the desired admission information panel. Once here the patient should see the information they entered in the admissions creation, here they will then proceed to enter an illegal character into the text field of the system ("!"). From here the patient should press the update admission button located at the bottom of the page. In return this will cause the system to then pass the recently entered information into a validation method. As the user entered an invalid datatype the system should then respond by returning false from validation, in return should the updating process to abruptly terminate and then output popup informing the user.	
34.213	Validation (Symptoms) <Length>	Here when the user starts the method they will be in the admission panel. After pressing the view admission button they should be at the admission details panel. Here the patient should see all the fields contain the data from the initial admission creation. At this point the user should enter only three symptoms by removing the existing last symptom. From here they should select the update admission button, this should cause the system to validate the field by performing a length check on the array that holds the symptoms, as the length is too low the system should return a boolean value of false from the check which should cause the system to terminate the updating process and then generate a popup to the user.	Rectified
34.22	Validation (Areas affected) <Null>	Here when the user starts the method they should be in the admission panel. After pressing the view admission button they should be at the admission details panel, where the desired instance has been passed through also. At this point the patient should see that some information is already present in the fields. Now they will proceed in unselecting all the body parts in the human. When this has been done they will now press the update admission button, this should cause the system to concatenate it and then cause it to be passed through the validation method. As the item is null the system should identify the issue and then immediately return false, this will cause the updating method to terminate early and will generate a popup.	Rectified

34.3	Navigation	When the user performs test 33.1 they will start at the patient homepage panel (patientHomepagePanel). Here they will navigate to the desired admission on the admission homepage panel (admissionHomepagePanel). Once here the patient should then press the view admission button in the contact bar. This will cause the currently active admission to then be passed through to the component assigning method where attributes of the instance are then assigned to the fields. Once the patient gets to the panel (EditAdmissionPanel), they should see all the attributes, here they will enter the new fields of information they have been provided and will press the update admission button. This will cause a copy of the admission to be made as a backup in case the boolean value of false is returned from validation. If true comes through the system will then write the new instance to file and will load the admission homepage panel(admissionHomepagePanel). The panel should be as follows: patientHomepagePanel - admissionHomepagePanel - EditAdmissionPanel - admissionHomepagePanel	
------	-------------------	---	--

	Test ID	34.1
	Data Set	A3
	Evidence	 
	Actual Commentary	When greeted at the home screen, I proceeded to enter the information I had in data set A3. For each field I entered the correct value, and proceeded to press the update admission button, after this occurred I was brought back home to the admission account. However what had occurred was that the admissions tab now contained admissions that should be out of access to the account and as a result caused the test to fail, despite this when I went into the file I could see that the correct information had been written to file, so on a back end perspective it was a success the data had been correctly written over the old data in the file, however I will need to address this issue.

Further actions /Enquiry

```

    //this method is used to update the admission list for the GUI aspects of the system for
    //if updates the consultant
    //then it pulls the list of their admissions
    //assgins them to the global list
    public void updateConsultantAdmissionList()
    {
        userConsultant = userConsultant.retrieveConsultant(userConsultant.consultantID);
        String[] listOfAdmissionsIDS = userConsultant.concatenateconsultantPatientList[currentIndex];
        systemAdmissionList = userConsultant.pullAdmissions(listOfAdmissionsIDS,userPatient);
    }

    public void popUpInstateAdmission(Patient patient,Admission admission)
    {

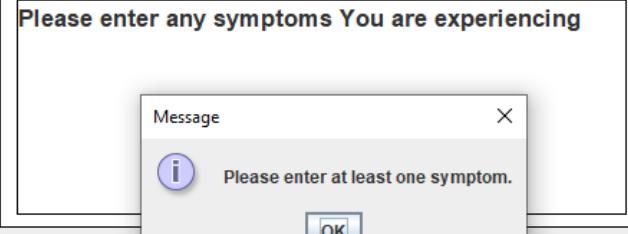
```

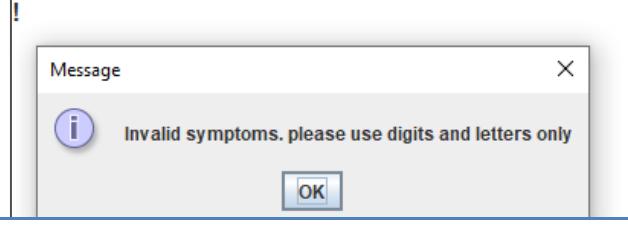
The screenshot shows the 'Patient Admission' tab selected in the navigation bar. The main form includes fields for Ward, Consultant, Diagnosis, Symptoms, Discharged status, Type of pain, and a 'Areas Affected' section with a human body diagram and checkboxes for various body parts.

The screenshot shows the 'Patient Admission' tab selected in the navigation bar. The main form displays a summary of the admission details (ID: ABB0000038) and associated documents. The documents listed are 'Consultant Notes' (DABB0000001), 'Test Results Document' (DABB0000002), and 'Test Results Document' (DABB0000003), all created on 21/02/2020.

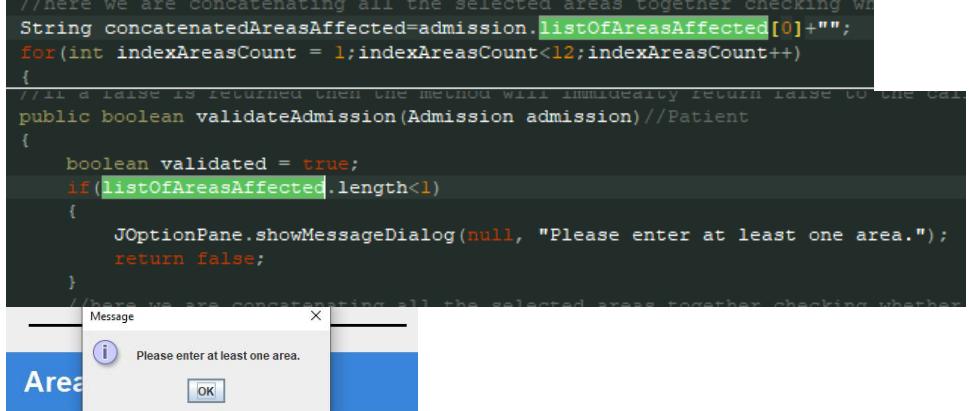
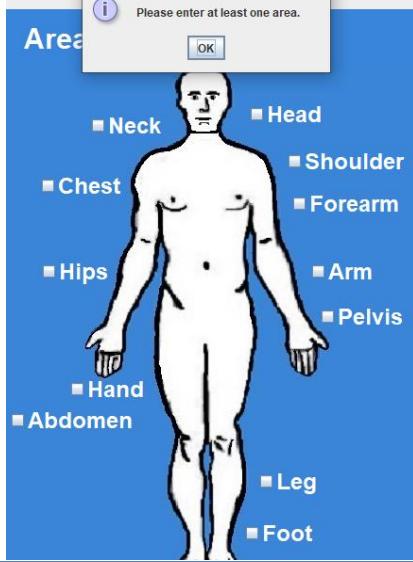
The issue stemmed from the final line of the source code which simply addressed the GUI list of admissions as the patients, this was easy to address as I just copied the code which initialised the consultant's admission list at the start of the program and made a modular version of the method. Now at the end of the update method, I just call this if the user is a consultant. As you can see from the screenshots it works as planned. Because of this I can call this test now a success .

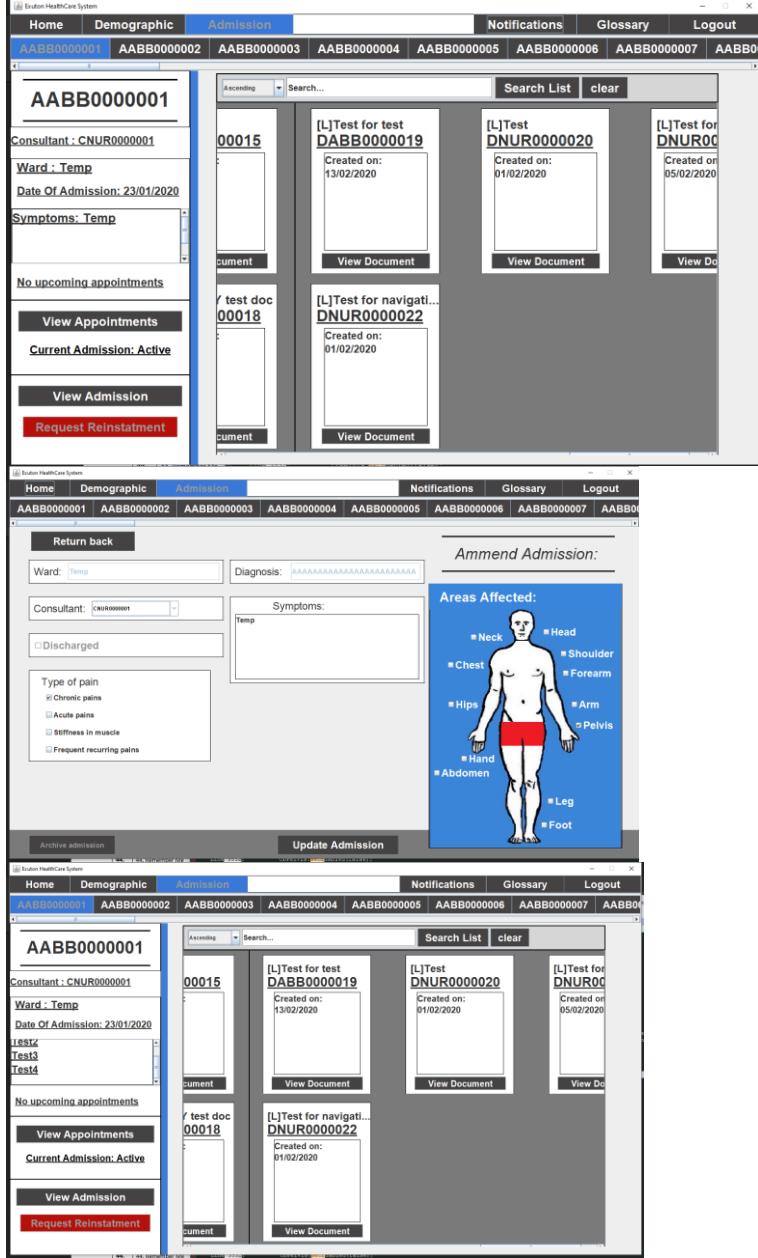
Rectified

Test ID	34.211
Data Set	Validation (Symptoms) <Null>
Evidence	<p>Symptoms:</p> 
Actual Commentary	<p>At the start of this test I was at the admission homepage, from here I selected the view admission button in the contact bar and I was then moved to the edit admission panel of the system. At this point I then proceeded to clear all the items from the symptoms text box of the system, as the field has a change listener the box automatically recognised the empty field and then filled the text in it with "Please enter any symptoms you are experiencing". From this I then pressed the update admission button which caused a presence check to be ran on the data.</p> <p>As expected, as the field was erroneous the system recognised the value and then returned false from the validation method. This then caused the update admission booking to be terminated and then generated a popup informing me of the error. Because of this I can accept the test, call it a success and move on.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	34.212
Data Set	Validation (Symptoms) <Type>
Evidence	<p>Symptoms:</p> 
Actual Commentary	<p>At the start of this test I was at the admission homepage, from here I selected the view admission button in the contact bar and I was then moved to the edit admission panel of the system. Once here I could see that all the information regarding the admission was here, anyway I then proceeded to clear the contents of the symptom box and then enter the character "!". After doing this I then pressed the update admission button which caused the system to pass the field into a type validation method looking for strings only. As expected, as the field was erroneous the system recognised the value and then returned false from the validation method. This then caused the update admission booking to be terminated and then generated a popup informing me of the error. Because of this I can accept the test, call it a success and move on.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

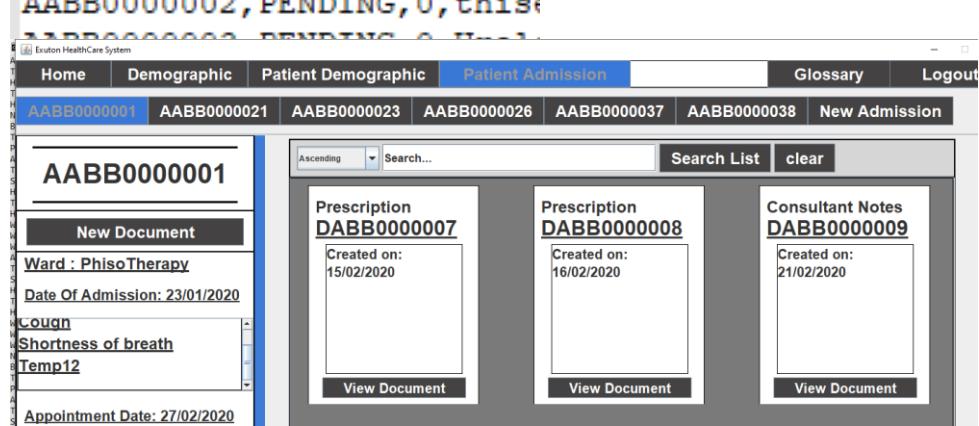
Test ID	34.213
Data Set	Validation (Symptoms) <Length>
Evidence	<p>Symptoms:</p> <div style="border: 1px solid black; padding: 5px;"> Fever Cough Shortness of breath </div> <pre> java.lang.ArrayIndexOutOfBoundsException: Index 3 out of bounds for length 3 at com.example.admission.AdmissionList.ission(AdmissionList.java:140) at com.example.admission.AdmissionList.ission(AdmissionList.java:2205) at com.example.admission.AdmissionList.ission(AdmissionList.java:10814) at com.example.admission.AbstractButton.fireActionPerformed(AbstractButton.java:1967) at com.example.admission.AbstractButton\$Handler.actionPerformed(AbstractButton.java:2308) at com.example.admission.DefaultButtonModel.fireActionPerformed(DefaultButtonModel.java:405) at com.example.admission.DefaultButtonModel.ontDnarcad(DefaultButtonModel.java:262) </pre>
Actual Commentary	<p>At the start of this test I was at the admission homepage, from here I selected the view admission button in the contact bar and I was then moved to the edit admission panel of the system. For the last time for this field once I reached the panel I then proceeded to remove the fourth symptom from the list. After doing this I then pressed the update admission button at the bottom of the panel. When I did the method stopped and then caused the system to throw an out of bounds error to the command prompt. Because of this, I will fail the test and will resolve the issue.</p>
Further actions /Enquiry	<p>The issue was produced because the system didn't have any try and catch statements for the symptoms boxes so when an array with a length less than four was passed through the system would then try to access the 4th index but as the array is initially dynamic, due to the .split command, we can't do anything about the array. However while a little inefficient we can try and catch each line for the symptoms. This will fix the issue as you can see. Because of this I can now accept the test and move onto the next test.</p> <div style="border: 1px solid black; padding: 10px;"> <p>Symptoms:</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> This That Other Test HELP </div> <div style="border: 1px solid black; padding: 5px; background-color: #f0f0f0;"> <p>Message</p> <p>Please enter at most 4 symptoms.</p> <p>OK</p> </div> <pre> //Method used to update the patients admission on the system public void updateAdmission(Patient patient, Admission admission, int numOfAreas) { String concatenatedSymptoms = ""; try { concatenatedSymptoms= admission.listOfSymptoms[0]; } catch(Exception exc){} try { concatenatedSymptoms = concatenatedSymptoms+"@"+ admission.listOfSymptoms[1]; } catch(Exception exc){} try { concatenatedSymptoms = concatenatedSymptoms+"@"+ admission.listOfSymptoms[2]; } catch(Exception exc){} try { concatenatedSymptoms = concatenatedSymptoms+"@"+ admission.listOfSymptoms[3]; } catch(Exception exc){} String concatenatedAreasAffected=admission.listOfAreasAffected[0]+"@"; for(int indexAreasCount = 1;indexAreasCount<numOfAreas;indexAreasCount++) </pre> </div>
Rectified	

Test ID	34.22
Data Set	Validation (Areas affected) <Null>
Evidence	<pre>ueue-0" java.lang.ArrayIndexOutOfBoundsException: Index 0 out of bounds for length 0 mission(Admission.java:50) Gui.java:2211) Gui.java:10862) wing.AbstractButton.fireActionPerformed(AbstractButton.java:1967) wing.AbstractButton\$Handler.actionPerformed(AbstractButton.java:2308) wing.DefaultButtonModel.fireActionPerformed(DefaultButtonModel.java:405) wing.DefaultButtonModel.setPressed(DefaultButtonModel.java:262) wing.plaf.basic.BasicButtonListener.mouseReleased(BasicButtonListener.java:279) t.Component.processMouseEvent(Component.java:6632) wing.JComponent_processMouseEvent(JComponent.java:3342)</pre>
Actual Commentary	<p>At the start of this test I was at the admission homepage, from here I selected the view admission button in the contact bar and I was then moved to the edit admission panel of the system. After this I then unselected all the body parts on the human and immediately pressed update admission. Because of this for some reason the system returned an index out of bounds exception to be thrown to command line. Because of this I will call the test as a failure, I will now get to the root of the issue and resolve it.</p>
Further actions /Enquiry	<p>The issue occurred due to the fact that the validation method which was used for the error was originally located in the GUI method for the admission creation so it was not used when the string was passed through. The fix is simple before we start using index referencing we need to quickly check that the array length is greater than 1, so not zero. After this we should get it working.</p> <p>As you can see below, the first image is the initial code which directly called the index ensuing the error. After that is the code before it, as you can see if it recognises that the array is null then the correct responses are produced (see last image). Because of this we can call the test a success.</p>  <p>The screenshot shows a Java code editor with the following code:</p> <pre>//here we are concatenating all the selected areas together checking wh String concatenatedAreasAffected=admission.listOfAreasAffected[0] ""; for(int indexAreasCount = 1;indexAreasCount<12;indexAreasCount++) { //if a laise is returned then the method will immediatly return laise to the cas public boolean validateAdmission(Admission admission)//Patient { boolean validated = true; if(listOfAreasAffected.length<1) { JOptionPane.showMessageDialog(null, "Please enter at least one area."); return false; } }</pre> <p>Below the code editor is a message dialog box titled "Message" with the text "Please enter at least one area." and an "OK" button.</p>  <p>A diagram of a human figure with various body parts labeled:</p> <ul style="list-style-type: none"> Neck Head Shoulder Forearm Arm Pelvis Hips Chest Abdomen Hand Leg Foot
Rectified	

Test ID	34.3
Data Set	N/A
Evidence	
Actual Commentary	While a little hard to prove functionality when I started the test I was located at the patient admission panel, here I then selected the view appointments button in the contact bar and was moved to the desired panel, at this point the system successfully passed the desired admission through as the fields contained the correct data. After editing the symptoms I then pressed the update admission button which redirected me to the admission home page. Here we can see in the scrollbar in the contact bar the symptoms updated, because of this we can regard the test as a success and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test Plan 35 Objective No. 35, Add notes

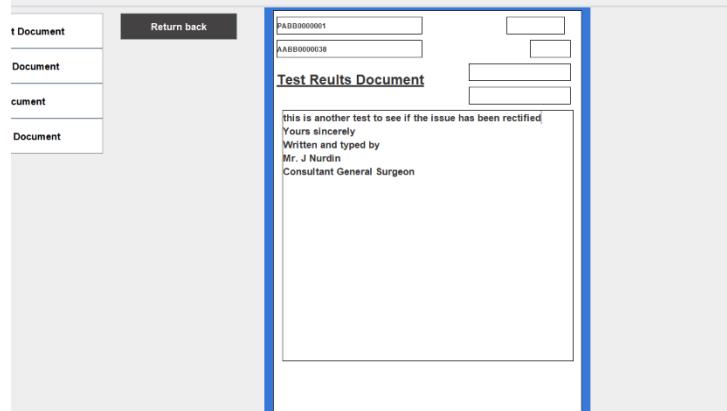
Test ID	Test Type	Purpose/Expected Output	Pass?
35.1	Functionality	The user should locate the document they want to create a document for, when they do this they should then enter the data which should be on the document. On loading of the document, the correct format should load along with the document already containing a document signing. When they press create document, what should happen is that the instance of document should be initiated, the type of document should be chosen and then assigned, after this it should create any other needed attributes. Finally it is ready to be written to file, here the correct index in file should be addressed and then inserted into in the array. Once completed the file should be written and the consultant should be brought home where they can view the document.	Rectified
35.21	Validation (Text field) <Null>	For this test the user should have already selected the desired document of notes. After this the consultant should then proceed to delete all the information regarding the document in the text area. After this is done they will then press the create document button. This will cause the field to initially be concatenated and then converted into a string by replacing all new lines with the character "#". However as the area is null the presence validation method which checks this data should return false. As a result the creation of the document should be abruptly interrupted and a popup should be generated.	Rectified
35.22	Validation (Text field) <Type>	Here, the user should have already selected the desired document of notes. After this the consultant should then proceed to enter the character of "#" anywhere in the text area. After this is done they will then press the create document button. This will cause the field to initially be concatenated and then converted into a string by replacing all new lines with the character "#". However as the area contains one of these characters the type validation method which checks this data should recognise this error and should return false. As a result the creation of the document should be terminated and a popup should be generated.	
35.23	Validation (Text field) <Length>	At the start the user should have already selected the desired document of notes. After this the consultant should then proceed to do the opposite of test 35.21 and should enter the character "I" until the entirety of the document is covered in them. After this is done they will then press the create document button. This will cause the field to initially be concatenated and then converted into a string by replacing all new lines with the character "#". However as the string should exceed the upper limit of 1000 characters the length validation method, which checks this data, should return false. As a result the creation of the document should be abruptly interrupted and a popup should be generated.	
35.3	Navigation	For this test the consultant should initially be located at the admission homepage for the desired admission. Here they should select the admission they want to generate the document for. From here they should select the create document button from the admission contact bar. At this point they should proceed to the new panel for creating documents. After this they should then select the document type and fill in the necessary document information. After doing this and pressing the create document button the documents should be created. (see test 35.1). After this they should be returned back to the admission home panel where they can see the new document has been added. The panel order is as follows: admissionHomepagePanel - createNewDocumentPanel - admissionHomepagePanel	

Test ID	35.1
Data Set	D1
Evidence	<p>This is a test document to try functionality This is a new line, trying also for commas</p> <p>Yours sincerely Written and typed by Mr. J Nurdin Consultant General Surgeon</p> <hr/> <p>DABB0000005@13/02/2020 24:: DABB0000006@13/02/2020 24:: DABB0000007@15/02/2020 23:: DABB0000009@21/02/2020 24:: DABB0000008@16/02/2020 16:: AABB0000002, PENDING, 0, this</p> 
Actual Commentary	Unfortunately the test had failed due to the location it would be held at was at the wrong index. Regardless. When I went to create the document, due to fairly strong validation I knew I didn't need to worry about editing the field incorrect and as most of the instance was generated automatically I just had to enter the information in. Once I entered the information in and pressed create document, I was brought home where I saw that the document had been created. To check everything was ok in the back end I opened up the patient's file and saw that the index for the document was off by one index. Because of this I had to fail the test.

Further actions /Enquiry

```
int indexNewDocumentShouldGo=-1;
String[] fileContents = parentAdmission.rffReturnFullFile(patientID+"_file.txt");
int[] indexesAdmissionsOccur = parentAdmission.retrieveIndexesAdmissionsOccur(fileContents,tempPatientID);
String[] copiedFileContents = new String[fileContents.length+1];
//finds indexDocument Should go
for(int count = 2;count<fileContents.length;count++)
{
    //System.out.println("file line info " +count+" "+fileContents[count].substring(0,11));
    if(fileContents[count].substring(0,11).equals(parentAdmission.admissionID))
    {
        indexNewDocumentShouldGo=count-parentAdmission.numberOfDocuments;
    }
}
indexNewDocumentShouldGo=count+parentAdmission.numberOfDocuments;
//we now need to compensate for whether a booking exists, this is pretty
//need to check last line is not the admission
//dont have to worry about if it is as it should work as normal
if(count!=fileContents.length-1)
{
    //checking if a booking exists
    if((fileContents[count+1].charAt(0)+"").equals("B"))
    {
        indexNewDocumentShouldGo++; //compensates for the booking
    }
}
```

AABB0000021 | AABB0000023 | AABB0000026 | AABB0000037 | AABB0000038 | New Admission

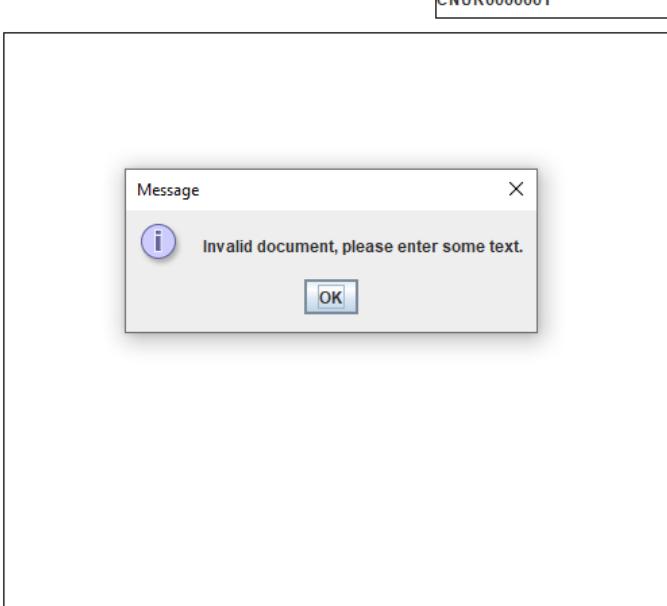


On inspection the issue occurred due to the fact that the method which isolated the index the document would be written to failed to compensate for the actual booking instead it just added on the new number of documents to the index of the admission and left it at that, the fix was slightly

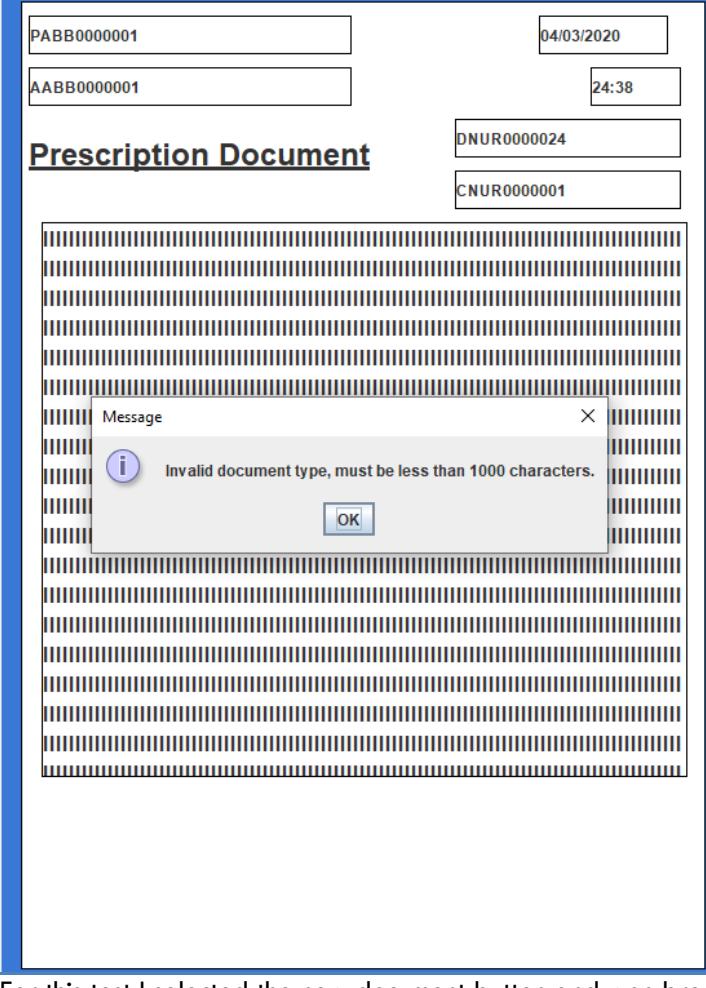
AABB0000036, PENDING, 0, PENDING, sdsdt@sdsdisdisdisdisdisdis
AABB0000037, CNUR0000001, 0, wersdf, NAUSEA@@@, true, 19/02/2020, PI
AABB0000038, CNUR0000001, 2, wersdf, TREYER@Temp@Tmp@Mp, true, 19/02/2020, false, hfhgthf
BABB0000038, 11:31, 26/02/2020, false, hfhgthf
DABB0000001@21/02/2020 24:53@Consultant Notes@This is a test
DABB0000002@21/02/2020 24:56@Test Reults Document@this is and

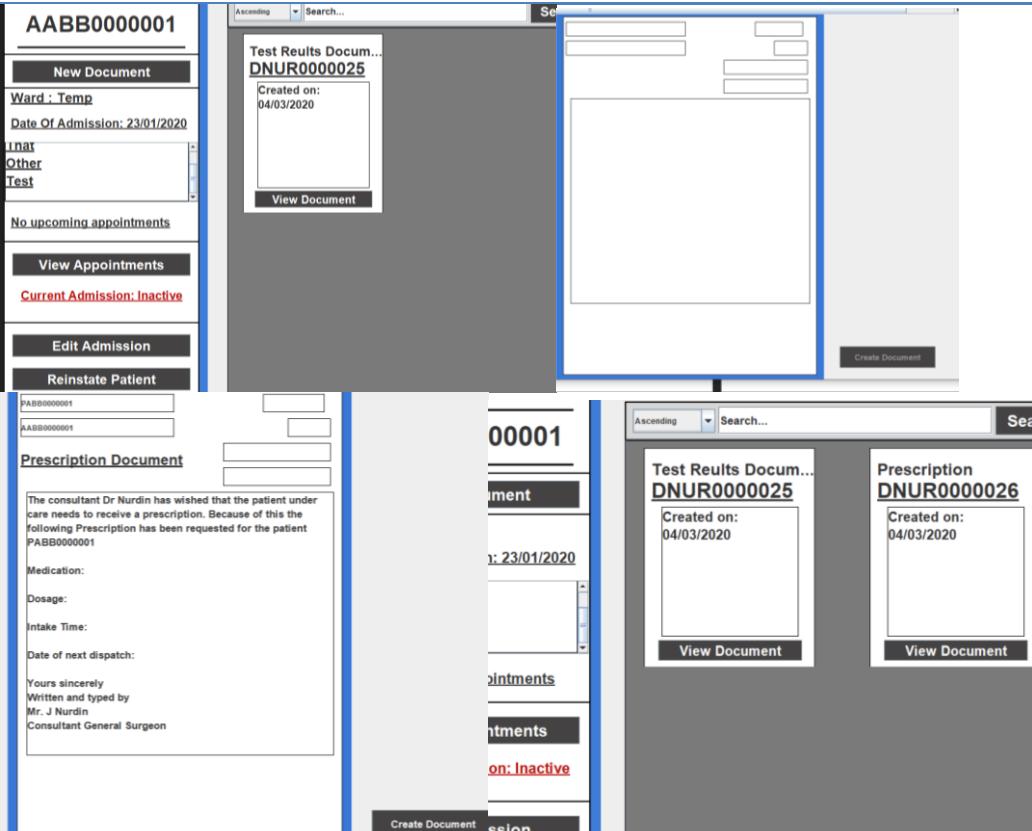
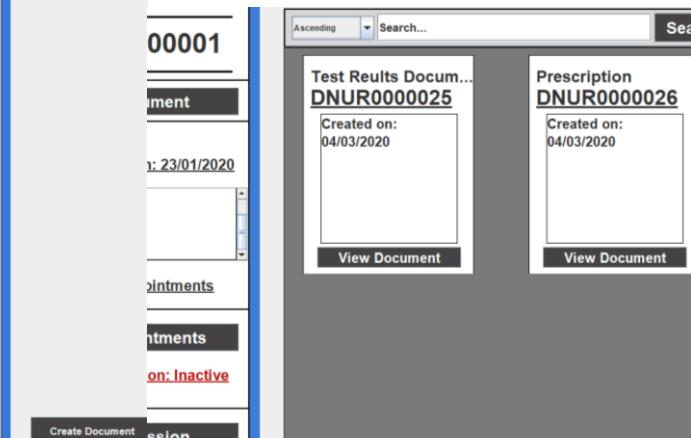
easy as we needed to search the index after the admission and check if it was a booking or not if not no action needed if it was we needed to increment the value by 1 to make sure the location was rectified for the booking. Regardless the error is fixed and because of this, I can say the issue is fixed, therefore the test was a success.

Rectified

Test ID	35.21
Data Set	Validation (Text Area) <Null>
Evidence	<p>CNUR0000001</p>  <p>DNUR0000027</p> <p>CNUR0000001</p> <p>Consultant Notes</p> <p>dfgsdfgdfgsdfgsd#dfstgsdftsdfg#Yours sincerely#Written and typed by#Mr. J Nurdin#Consultant General Surgeon</p> <p>Create Document</p>
Actual Commentary	For this test I selected the new document button and was brought to the panel, after selecting the notes document type I then proceeded to completely clear the text area, See Evidence, after doing this I then selected the create document button and the boolean value false returned from the validation triggering the popup and termination. While not in the expectation I then proceeded to create a normal copy and enter a lot of gibberish. This time the input was allowed and the document generated, however on viewing the document as you can see the new lines where replaced by #, because of this I will call this test a failure and will aim to resolve it.
Further actions /Enquiry	As the code for this method was too long regardless if I used line wrap I will just use a brief pseudocode to describe the purpose. After the generation of the document in file, the system's instance for the text actually didn't reverse the swap did to it before being written to file. So the fix is to just implement this, however as we had the list of admissions returned to me after the document was created I have no direct access and so I had to manually enter the variables to get to the instance. Regardless it works and can call the test a success and move on. The pseudocode: <code>ListofAd[current A].listOfDoc[current D].text = ListofAd[current A].listOfDoc[current A].text.Replace(# with /n)</code>
Rectified	

Test ID	35.22
Data Set	Validation (Text Area) <Type>
Evidence	<p>PABB0000001 04/03/2020</p> <p>AABB0000001 24:38</p> <p>Prescription Document</p> <p>DNUR0000024 CNUR0000001</p> <p>The consultant Dr Nurdin has wished that the patient under care needs to receive a prescription. Because of this the following Prescription has been requested for the patient PABB0000001</p> <p>Medication: Message X</p> <p>Dosage: Invalid character used, @.</p> <p>Intake Time: OK</p> <p>Date of next dispatch:@</p> <p>Yours sincerely Written and typed by Mr. J Nurdin Consultant General Surgeon</p> <p style="text-align: right;">Create Document</p>
Actual Commentary	For this test I selected the new document button and was brought to the panel, after selecting the medication document type, the system correctly generated all the correct aspects to the medication document, including the signoff. I then proceeded to then enter the character "@" into the text area, after doing this I then selected the create document button, this caused the system to concatenate the input into a string and then passed it through a type validation method. As the field contained the illegal character the boolean value false returned from the validation triggering the popup informing me of the error followed by the termination of the documents generation and writing to file. Because the system managed to do what I asked from it I will call the test a success and will move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	35.23
Data Set	Validation (Text Area) <Length>
Evidence	 <p>The screenshot shows a 'Prescription Document' creation interface. At the top, there are two input fields: one containing 'PABB000001' and another containing '04/03/2020'. Below these are two more input fields: one containing 'AABB000001' and another containing '24:38'. Further down, there are two more input fields: one containing 'DNUR0000024' and another containing 'CNUR0000001'. A large text area below these fields is filled with the character 'I' repeated many times. A modal dialog box titled 'Message' is displayed in the center of the text area, stating 'Invalid document type, must be less than 1000 characters.' with an 'OK' button. In the bottom right corner of the main window, there is a dark button labeled 'Create Document'.</p>
Actual Commentary	<p>For this test I selected the new document button and was brought to the panel, after selecting the medication document type, the system the correctly generated all the correct aspects to the medication document, including the signoff. I then proceeded to fill the entire text area with the character "I" as this had the shortest pixel width (Allowing for an upper bound approximation), after doing this I then selected the create document button, this caused the system to concatenate the input into a string and then passed it through a length validation method. As the field definitely had more than 1000 characters the boolean value false returned from the validation triggering the popup informing me of the error followed by the termination of the documents generation and writing to file. Because the system managed to do what I asked from it I will call the test a success and will move on.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next test.
Rectified	N/A

Test ID	35.3
Data Set	N/A
Evidence	 
Actual Commentary	<p>Initially I was at the admission homepage here all the correct fields had been generated for that panel correctly. After pressing the new document button I was then brought to a new panel with 5 buttons and an empty document where both the dischargement button and the document creation button had been disabled. After selecting the type of document I wanted, and that was available I then saw that the document updated itself containing all the text necessary for the prescription had been generated, with the creation button now enabled. After entering the information for the document, I then pressed the create document button and saw that for the last time I was returned home where I could see that there was a new document, that being the one I created. Because of this I will regard the test as a success.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

Test Plan 36 Objective No. 36, Encrypting data before being written to file

Test ID	Test Type	Purpose/Expected Output	Pass?
36.1	Functionality	For this test we will pass through a string from the array we want to write to file. When the string is passed through the system should then character by character split the items into their respective characters. Once we have single values the system should then find the ASCII value of the value. When found the integer, the system should add the integer 1 to the value. The system should then attempt to convert the integer back into a character by referencing the object of character. Finally the character should then be concatenated with the rest of the encrypted value, where when the end of the string is reached the system writes the word to file.	Not performed
36.2	Validation	The test is to be omitted due to the fact that the system will be entering pre-validated information. This occurs due to the countless validation methods used throughout the system that are called prior to them being written to file and because of this, it would be pointless to revalidate each line of information an additional time so we can clearly see no need to perform the test here.	Not performed
36.3	Navigation	This test is to be omitted from the system because it has no interaction with the class Gui in any way which would lead to it needing navigation and visual testing. As the objective is purely on the back end of the system we could not perform any tests which check visual performance and so we will proceed with carrying out the first plan instead.	Not performed

Test ID	36.3	
Data Set	U1	
Evidence	<pre> Word to encrypt: 2,PNUR0000005,PNUR0000007,New character: , current character: 2 New character: 3 current character: , New character: - current character: P New character: Q current character: N New character: O current character: U New character: V current character: R New character: S current character: 1 New character: 0 current character: U New character: V current character: R New character: S current character: 1 New character: 0 current character: 1 New character: 1 current character: 0 New character: 1 current character: 1 New character: 1 current character: 0 New character: 1 current character: 1 New character: 1 current character: 0 New character: 1 current character: 1 New character: 1 current character: 7 New character: 8 current character: , New character: - New word: 3-QQVS1111116-QQVS1111118- </pre>	
Actual Commentary	<p>For this test when I started the system I initially logged in as SNUR0000002, as no data had been written to file because of this, I realised that I had to perform an action, because of it I changed the address of the account. When I pressed the update button the system validated the values and then passed the entire array to be updated, once the changes occurred, the system started file writing. As you can see the string "2,PNUR0000005,PNUR0000007," was broken down character by character and then reassembled at the concurrently. When it had finished the line, the system then wrote the line to the next line of the file. Because it successfully encrypted a string and then wrote it to file I will accept the test and move on.</p>	
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.	
Rectified	N/A	

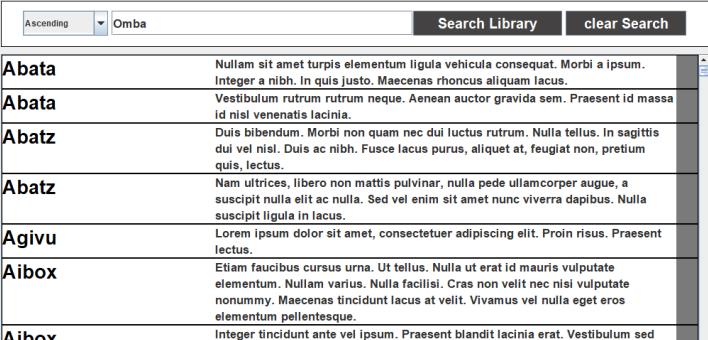
Test Plan 37 Objective No. 37, Decrypting that has been read from file

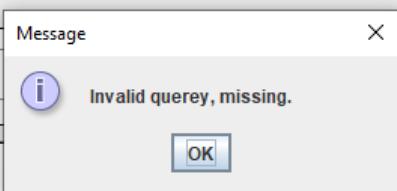
Test ID	Test Type	Purpose/Expected Output	Pass?
37.1	Functionality	<p>For this test as the system has to read from file initially all the user has to do will be to login as “SNUR0000002”. Once they do this the system will then begin reading the file, every time a new line is read the red line call should be passed through the decryption method. As the return value is a string the system should correctly store it. While inside the decryption method, the string should be split into its fundamental characters, here each one will then be converted into their ASCII equivalent before decrementing the value by one. After this the system should then find the character by calling a class of character on the data. Then the character should be concatenated to the current list of decrypted values. Once the end is reached the string is returned.</p>	
37.2	Validation	<p>Similar to test 36.2 this feature will be not utilised during testing as the feature has no interaction with user input. Also as the system will already validated the data input before even being passed into the file writing method it should reassure the reader that the only correct acceptable data can be stored in the files and so we can omit the test.</p>	Not performed
37.3	Navigation	<p>This test is to be omitted from the system because it has no interaction with the class Gui in any way which would lead to it needing navigation and visual testing. As the objective is purely on the back end of the system we could not perform any tests which check visual performance and so we will proceed with carrying out the first plan instead.</p>	Not performed

Test ID	37.3
Data Set	U1
Evidence	<pre> current character: 6 New character: 5 current character: - New character: , current character: , New character: Q New character: P current character: 0 New character: N current character: V New character: U current character: S New character: R current character: 1 New character: 0 current character: 1 New character: 0 current character: 0 New character: R current character: 1 New character: 0 current character: 0 current character: 1 New character: 0 current character: 1 New character: 0 current character: 1 New character: 0 current character: 0 New character: 1 current character: 0 current character: 1 New character: 0 current character: 0 current character: 0 New character: 1 current character: 0 New character: 8 New character: 7 current character: - New character: , New word: 2,PNUR000005,PNUR000007, </pre>
Actual Commentary	<p>At the start of the test I was located at the login panel. After entering the credentials for the staff account SNUR0000002 I then proceeded to log into the system, then the system proceeded to pass each line read from this entities file into the decryption method, each time the word would be split into characters, then the items would be converted into their ASCII equivalent and finally they would be converted to the correct integer ASCII number returned back to the character datatype and ultimately concatenated back to the final string which was then returned back to the user. As you can see from the screen shots the objective works and I can proceed on as this test was a success.</p>
Further actions /Enquiry	<p>As no errors have occurred can proceed to the next objective.</p>
Rectified	N/A

Test Plan 38 Objective No. 38, Using the Jargon library

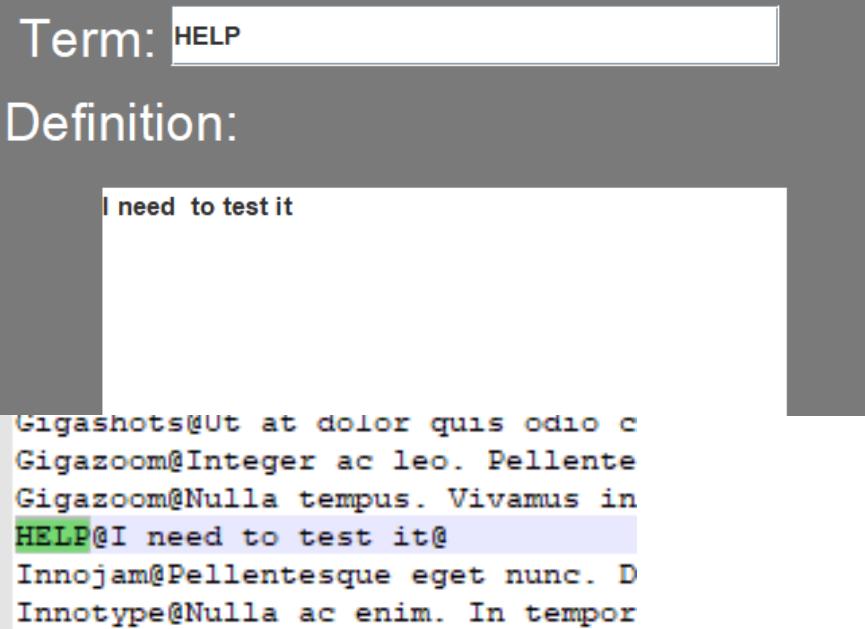
Test ID	Test Type	Purpose/Expected Output	Pass?
38.1	Functionality	For this test the user should start off by pressing the Glossary of terms button next to the logout button, regardless of what panel the user is at. When this occurs the system should then initialise the method which generates the terms along with the definitions by reading them directly from file. After this the system should split the array into a multidimensional one consisting of two parts the term and definition, after this the system will display the term in the correct sequence. Now the user will be able to see all the terms on the system. (As this objective is subjective I will aim to get a definition for the term "Ombo" which is just dummy data.). When the user enters into the search bar and presses enter a search will commence on the items returning all the instances where the term "Ombo" is present. As "Ombo" is the only term that contains those letters we should expect to see that word only returned.	
38.2	Validation (Search field) <Null>	For this test when the user starts the method, the system will load all the definitions to the new frame. After this the user should then see that they can use the system like int test 38.1, however here the user will attempt to ignore the field and immediately press the search button. When this occurs the system should then retrieve the text from the Text field and pass it through to a presence check validation method. As the field is empty the system should then return false and then immediately terminate the search and generate a pop up for the patient.	
38.3	Navigation	This objective doesn't utilise any navigation of panels and because of that there is no need to test the graphical interface. The feature has been extensively tested in dev testing for graphical reasons so just consult tests around the date: 15/02/20	Not performed

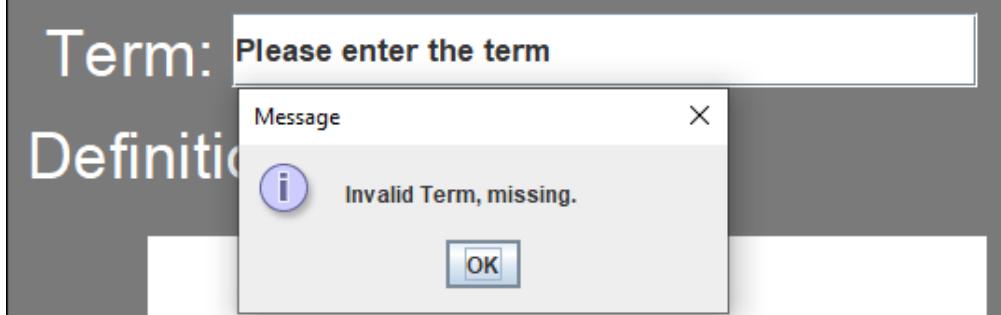
Test ID	38.1
Data Set	Glossary of Terms.txt
Evidence	 <p>The screenshot shows a search interface with two search boxes at the top labeled 'Ascending' and 'Omiba'. Below the first search box is a list of terms and their definitions:</p> <ul style="list-style-type: none"> Abata: Nullam sit amet turpis elementum ligula vehicula consequat. Morbi a ipsum. Integer a nibh. In quis justo. Maecenas rhoncus aliquam lacus. Abata: Vestibulum rutrum rutrum neque. Aenean auctor gravida sem. Praesent id massa id nisl venenatis lacinia. Abatz: Duis bibendum. Morbi non quam nec dui luctus rutrum. Nulla tellus. In sagittis dui vel nisl. Duis ac nibh. Fusce lacus purus, aliquet at, feugiat non, pretium quis, lectus. Abatz: Nam ultrices, libero non mattis pulvinar, nulla pede ullamcorper augue, a suscipit nulla elit ac nulla. Sed vel enim sit amet nunc viverra dapibus. Nulla suscipit ligula in lacus. Agivu: Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin risus. Praesent lectus. Aibox: Etiam faucibus cursus urna. Ut tellus. Nulla ut erat id mauris vulputate elementum. Nullam varius. Nulla facilisi. Cras non velit nec nisi vulputate nonummy. Maecenas tincidunt lacus at velit. Vivamus vel nulla eget eros elementum pellentesque. Aibox: Integer tincidunt ante vel ipsum. Praesent blandit lacinia erat. Vestibulum sed <p>The second search box below contains the term 'Omiba' with its definition:</p> <p>Omiba: Praesent id massa id nisl venenatis lacinia. Aenean sit amet justo. Morbi ut odio. Cras mi pede, malesuada in, imperdiet et, commodo vulputate, justo. In blandit ultrices enim. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin interdum mauris non ligula pellentesque ultrices. Phasellus id sapien in sapien</p>
Actual Commentary	When I selected the button on the system it caused the new window to be generated along with the system also pulling all the definitions and terms from file and then assigning them to a multidimensional array. Once this occurred the graphical aspect finally rendered with the creation of the fields also being generated, as a result I could see all the items from the list. After this happened I then proceeded to search for the item "Omiba". After entering the term I then proceeded to press the search button. When I did this the entire list then was searched where if a match was found the system would add the value to the return array. After this had completed the system returned a single item which was the item we were looking for. Because of this we can regard the test as a success and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

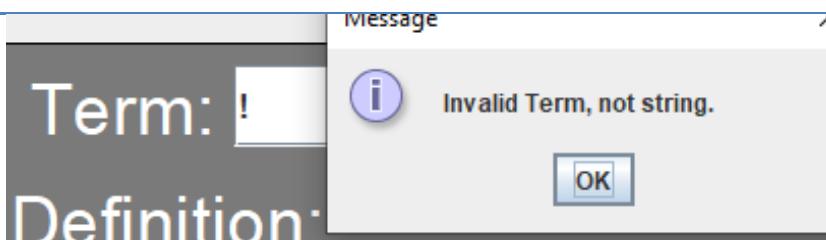
Test ID	38.2
Data Set	Validation (Search field) <Null>
Evidence	 <p>The screenshot shows a 'Message' dialog box with an 'X' icon in the top right corner. It contains an information icon (i), the text 'Invalid query, missing.', and an 'OK' button at the bottom.</p>
Actual Commentary	For this test when I loaded the panel I was initially met will all the components like last time. From this point I then proceeded to avoid the search box and pressed the search button straight away. As a result the prompt text "Search..." was passed through the validation method. As the check recognised the value as an empty string, the system then decided to return the boolean value false and then terminated the search along with creating a popup informing me of the error. Because the objective has done everything I wanted it to do I will accept the test as a success.
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

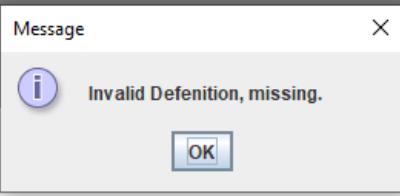
Test Plan 39 Objective No. 39, Adding to the Jargon library

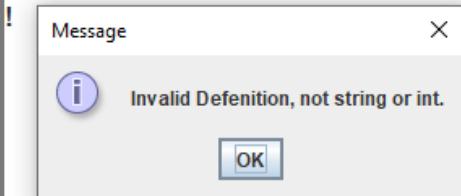
Test ID	Test Type	Purpose/Expected Output	Pass?
39.1	Functionality	Initially when the user starts the feature the system should generate the panel for the user. When this occurs the consultant should then proceed to enter information into both boxes the term field and the definition area. After this done and the user is happy with them they should then press the add to library button which will then initially validate the fields ensuring they are valid. After this the system should then perform a search on the data trying to find the index of the item while also checking whether or not if the term already exists, when the item is found the array they are held in extends by one and then allows the item to be written into the correct index before the entire file is written to file.	
39.211	Validation (Term) <Null>	For this test we are testing the presence check for the field. Here the user will enter the system and move to the new term panel, the user should then proceed to enter all the fields except the term field. After this the user should then continue entering the rest of the data normally. From here the user should click the add new term button. This will pass the field into a presence validation check, as the field is empty the system should return false causing the process to terminate early also producing a popup informing them of the error they caused.	
39.212	Validation (Term) <Type>	When starting the test the patient should be located at the homepage panel. After selecting the add glossary button the user should be relocated to the desired panel. Once here they will then proceed to enter an illegal character into the text field of the system ("!"). From here the patient should press the add new term button located at the bottom of the page. In return this will cause the system to then pass the recently entered information into a validation method. As the user entered an invalid datatype the system should then respond by returning false from validation, in return should the writing process to abruptly terminate and then output popup informing the user.	
39.221	Validation (Definition) <Null>	For this test we are testing the presence check for the area. Here the user will enter the system and move to the new term panel, the user should then proceed to enter all the fields except the definition field. After this the user should then continue entering the rest of the data normally. From here the user should click the add new term button. This will pass the field into a presence validation check, as the area is empty the system should return false causing the process to terminate early also producing a popup informing them of the error they caused.	
39.222	Validation (Definition) <Type>	When starting the test the patient should be located at the homepage panel. After selecting the add glossary button the user should be relocated to the desired panel. Once here they will then proceed to enter an illegal character into the text area of the system ("!"). From here the patient should press the add new term button located at the bottom of the page. In return this will cause the system to then pass the recently entered information into a validation method. As the user entered an invalid datatype the system should then respond by returning false from validation, in return should the writing process to abruptly terminate and then output popup informing the user.	
39.3	Navigation	This test does not need to rely on a navigation method due to the fact that the system does not need to move the user between panels on the system. Because of this we can proceed to the next test.	Not performed

Test ID	39.1
Data Set	Term, Definition
Evidence	<p>Term: <input type="text" value="HELP"/></p> <p>Definition:</p> <p>I need to test it</p> 
Actual Commentary	For this test I was initially located at the consultant's homepage. Here I then proceeded to press the add Glossary button at the top right of the panel. Once here I was then loaded into the create term panel. Here I then followed what expected from me and I had entered all the information I needed to. After this I then proceeded to press the button add to glossary, after doing this the system then concatenated what I had entered and then performed a linear search on the data, after this had occurred the index for the new item was found and the system then extended the list included the item and wrote it to file. As you can see from the text file screenshot it worked and was in the correct location. Because of this I will call the test a success and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

Test ID	39.211
Data Set	Validation (Term) <Null>
Evidence	
Actual Commentary	For this test I started off at the consultant's homepage and then proceeded into the correct panel. Here I was met with all the components consisting mainly of the terms and definition box. As the consultant I edited the text field for the term so that no data was in there. As a result the field then contained the original request data. After this I then pressed the button add term, after doing this the system then passed the field into the presence check .As it was null a boolean value of false was swiftly returned and then the process was terminated immediately followed by the creation of a popup informing the user that the field was missing. Because of this I will accept the test and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

Test ID	39.212
Data Set	Validation (Term) <Type>
Evidence	
Actual Commentary	For this test I was initially at the consultant's homepage panel, after pressing the Add glossary button I was immediately transported to the correct panel where I could see the components had been generated by the system. After this occurred I immediately went to the term field to enter the character “!”. After doing this I then pressed the update booking button. As a result of this the system then passed this value into the type validation method where it checked to see if it was either a string or an int. As it was neither the system then returned false and then cancelled the writing method and then generated a popup where it explained the error too the user. Because of this we can accept the test and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

Test ID	39.221
Data Set	Validation (Definition) <Null>
Evidence	<p>Definition:</p> 
Actual Commentary	For this test I started off at the consultant's homepage and then proceeded into the correct panel. Here I was met with all the components consisting mainly of the terms and definition box. As the consultant I edited the text area for the term so that no data was in there. As a result the field then contained the original request data. After this I then pressed the button add term, after doing this the system then passed the area into the presence check. As it was null a boolean value of false was swiftly returned and then the process was terminated immediately followed by the creation of a popup informing the user that the area was missing. Because of this I will accept the test and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

Test ID	39.222
Data Set	Validation (Definition) <Type>
Evidence	<p>Definition:</p> 
Actual Commentary	For this test I was initially at the consultant's homepage panel, after pressing the Add glossary button I was immediately transported to the correct panel where I could see the components had been generated by the system. After this occurred I immediately went to enter the character "," in the definition text area. After doing this I then pressed the update booking button. As a result of this the system then passed this value into the type validation method where it checked to see if it was either a string or an int. As it was neither the system then returned false and then cancelled the writing method and then generated a popup where it explained the error too the user. Because of this we can accept the test and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

Test Plan 40 Objective No. 40, Search through Bookings

Test ID	Test Type	Purpose/Expected Output	Pass?
40.1	Functionality	For this test the system will need to find the earliest booking a patient has on their account. The system should achieve this by performing a search on the data. When the system starts it should call a method which will perform a search on all the data. When it does this it will eventually find the earliest date. At the start the method will declare an initial value way into the future. When it compares this against the first value, regardless it will accept the value. This will continue for every booking on the patients account. At the end the booking chosen will contain a date closer to today's date but not one that is in the past. When a booking is updated both the date and instance of the booking need to change.	Green
40.2	Validation	This part of the test was not needed and so we could omit the feature. This is due to the system not needing the date or times being validated as the GUI already validates the date times. Because of this there is simply no need to perform any form of validation on the data.	Not performed
40.3	Navigation	Similar to test 40.2, this test does not need to be conducted due to the fact that the feature does contain any graphic features whatsoever. Because of this we can skip this test and focus on the functionality of the feature.	Not performed

Test ID	40.1	
Data Set	Booking reference	
Evidence	<pre>Booking Found for admission: AABB0000001 Booking Found for admission: AABB0000002 Booking Found for admission: AABB0000005 Booking Found for admission: AABB0000006 Booking Found for admission: AABB0000021 Got to initial date comparisonWed Mar 18 13:31:00 GMT 2020 Got to initial date comparisonWed Mar 18 11:31:00 GMT 2020 Earlier booking found Got to initial date comparisonWed Mar 18 10:31:00 GMT 2020 Earlier booking found Got to initial date comparisonWed Mar 18 10:01:00 GMT 2020 Earlier booking found Got to initial date comparisonSat Feb 29 09:31:00 GMT 2020</pre> <p>Next Appointment</p> <p>Date <u>18/03/2020</u> Consultant <u>CNUR0000001</u></p> <p>Time <u>10:01</u> Room <u>PENDING</u></p> <p>(current date is the 04/03/20)</p>	
Actual Commentary	As you can see when I started this method I was at the login page, after logging in the system would have called the find earliest booking date method. When the search ran it found the initial number of bookings then performed the search. Despite finding the correct value before the search terminated the system had to search the entire array before terminating in case any earlier values were found. As you can see from the screen shot the search works well as the correct booking was sent to the method which generated the next appointment box on the patient's homepage. Because of this I can call the test a success, and so we can proceed to the next test.	
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.	
Rectified	N/A	

Test Plan 41 Objective No. 41 Search through demographic information

Test ID	Test Type	Purpose/Expected Output	Pass?
41	Functionality	Unfortunately this objective has been removed from the system due to the fact that the Demographic information no longer needs to be searched. This came possible due to the large backend changes the came through during the redesign of the system during the post prototype phase of the system where the changes made to file handling meant that all the patient's information was now held in one contiguous location. As the demographic is now no longer held all in one file the objective has become obsolete. This has meant that the feature no longer needs to be tested.	
41	Validation	<i>The test is not needed as the objective is no longer being used in the system</i>	
41	Navigation	<i>The test is not needed as the objective is no longer being used in the system</i>	

Test Plan 42 Objective No. 42, Add/Edit employee demographic information

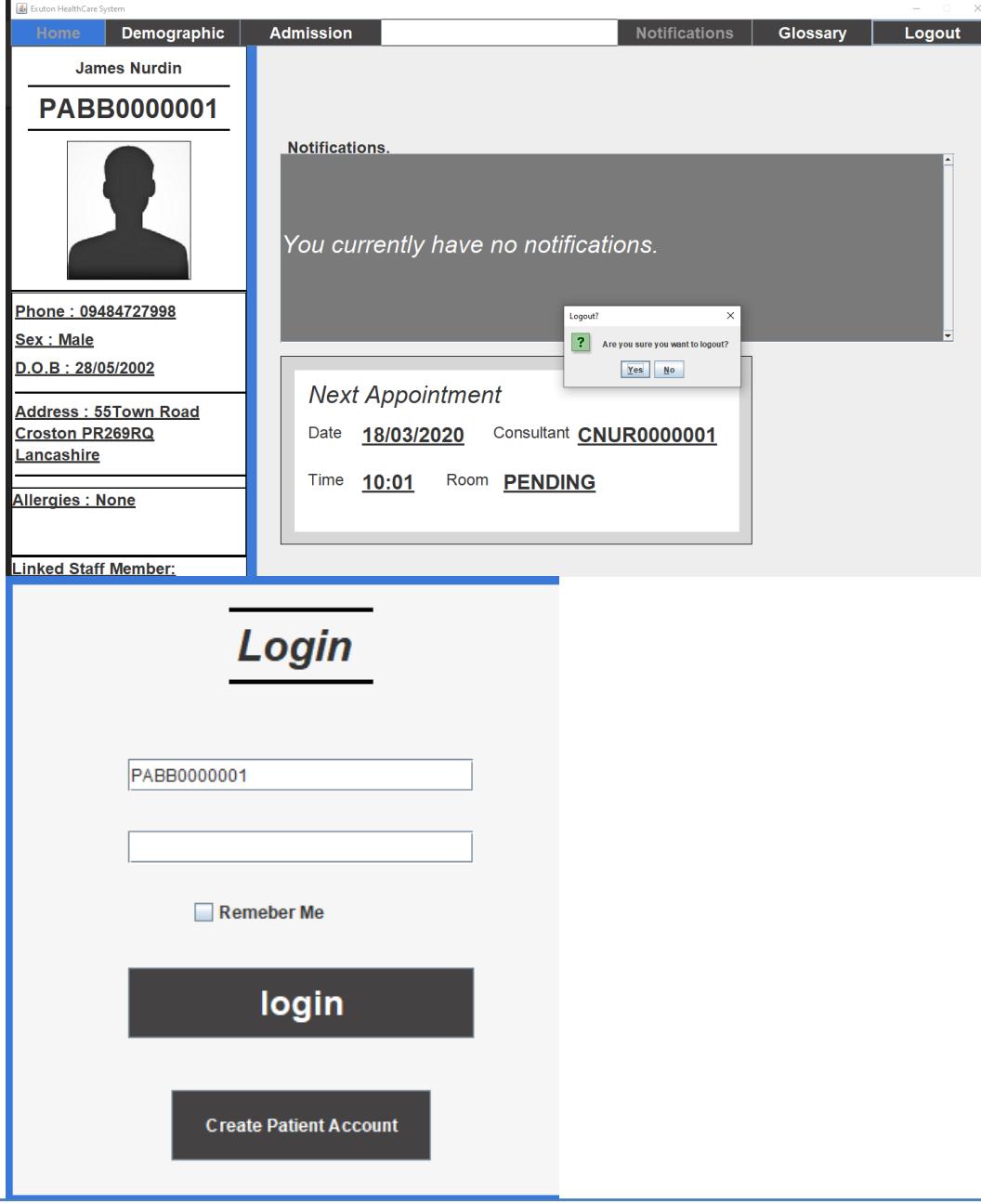
Test ID	Test Type	Purpose/Expected Output	Pass?
42.1	Functionality	For this feature when the employee logs into the system they will then proceed to the demographic panel of the system. They should do this by selecting the demographic panel of the system, the instance of the employee should be passed through to the panel, once here all the components should assign the attributes initialised from the user class to the correct location. When the user sees this they can then proceed with the task of updating the demographic. After the user has amended a few of these attributes, they should proceed to press the update admission button. This will cause the system to initialise a temporary instance of the employee to retrieve the fields and store them in the instance. The system then will attempt to pass the data through a validation method. As the data is valid the system should return true and will then update the employee instance by assigning every attribute to the real employee instance. Finally the entity should be passed through an update method which will write the new instance to the first line.	
42.2	Validation	Fortunately as the patient validation method for the demographic performs the exact same validations to the exact same fields for the employee instance we can omit the test and go of the basis that as both instances inherit the same superclass we can assume that in the same situation the system will respond identically to a patient/Staff/Consultant entering any text on the demographic panel. Because of this we can move onto the next test.	Not performed
42.3	Navigation	Again we can use the same ideology for the navigation test. As both the staff and consultant inherit the same base attributes from the User class like the patient we can regard this test as unnecessary as the system also uses the panel for all three objects and so when I performed the test way back in test 22 we can see it worked. Because of this we can skip the test.	Not performed

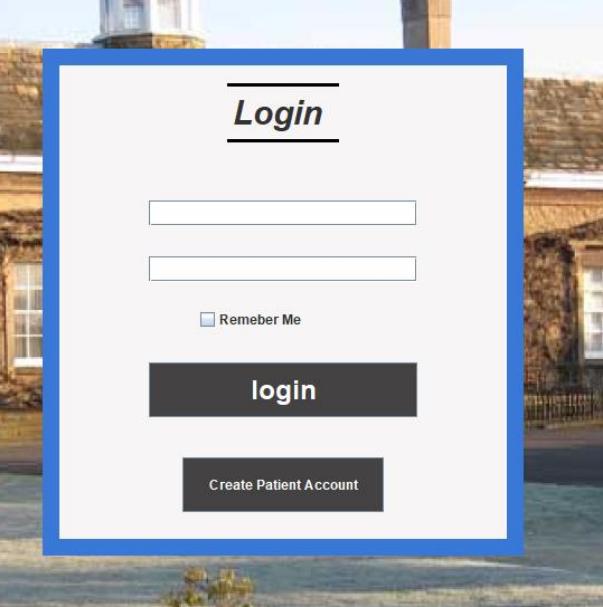
Test ID	42.1																																																																																
Data Set	U2																																																																																
Evidence	<p>SNUR0000008,ENUR0000008,4mt0Y08,Nurdin,james,55,Town Raod,Croston,PR269RA,09876543211,English,A+,1,1,23/02/0002,Christian,,Male,None,true,false,Other,Lanchsire,05/03/2020,12.0,345,false 5,PBAT0000001,PCAT0000001,PNUR0000004,PNUR0000005,PNUR0000007,</p> <p>(Line warp has been used to aid the reading of the line)</p> <p>Exuton HealthCare System</p> <table border="1"> <tr> <td>Home</td> <td>Demographic</td> <td>Patient Demographic</td> <td>Patient Admission</td> </tr> <tr> <td colspan="4">SNUR0000008</td> </tr> <tr> <td colspan="2">Firstname: james</td> <td colspan="2">Gender: Male</td> </tr> <tr> <td colspan="2">Surname: Nurdin</td> <td colspan="2">Sex: Other</td> </tr> <tr> <td colspan="2">Date Of Birth: 20 February 2</td> <td colspan="2">View Dates</td> </tr> <tr> <td colspan="2">Building number: 55</td> <td colspan="2">Average units a week: 1</td> </tr> <tr> <td colspan="2">Street: Town Raod</td> <td colspan="2">Average cigarettes a day: 0</td> </tr> <tr> <td colspan="2">Town/City: Croston</td> <td colspan="2">Allergies:</td> </tr> <tr> <td colspan="2">County: Lanchsire</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">Postcode: P R 2 6 9 R A</td> <td colspan="2"></td> </tr> </table> <p>Exuton HealthCare System</p> <table border="1"> <tr> <td>Home</td> <td>Demographic</td> <td>Patient Demographic</td> <td>Patient Admission</td> </tr> <tr> <td colspan="4">SNUR0000008</td> </tr> <tr> <td colspan="2">Firstname: Alex</td> <td colspan="2">Gender: Male</td> </tr> <tr> <td colspan="2">Surname: Nurdin</td> <td colspan="2">Sex: Other</td> </tr> <tr> <td colspan="2">Date Of Birth: 29 May 2002</td> <td colspan="2">View Dates</td> </tr> <tr> <td colspan="2">Building number: 26</td> <td colspan="2">Average units a week: 30</td> </tr> <tr> <td colspan="2">Street: Spelding Drive</td> <td colspan="2">Average cigarettes a day: 0</td> </tr> <tr> <td colspan="2">Town/City: Wigan</td> <td colspan="2">Allergies:</td> </tr> <tr> <td colspan="2">County: Greater Manchester</td> <td colspan="2">None</td> </tr> <tr> <td colspan="2">Postcode: WN6 8 LWA</td> <td colspan="2"></td> </tr> </table> <p>000008,ENUR0000008,4mt0Y08,Nurdin,Alex,26,Spelding,Wigan,WN68LWA,09876543211,English,A,0,29/05/2002,Christian,None,Male,None,true,false,Other,Greaterester,05/03/2020,12.0,345,false 5,PBAT0000001,PCAT0000001,PNUR0000004,PNUR0000005,PNUR0000007,</p> <p>(Line warp has been used to aid the reading of the line)</p>	Home	Demographic	Patient Demographic	Patient Admission	SNUR0000008				Firstname: james		Gender: Male		Surname: Nurdin		Sex: Other		Date Of Birth: 20 February 2		View Dates		Building number: 55		Average units a week: 1		Street: Town Raod		Average cigarettes a day: 0		Town/City: Croston		Allergies:		County: Lanchsire				Postcode: P R 2 6 9 R A				Home	Demographic	Patient Demographic	Patient Admission	SNUR0000008				Firstname: Alex		Gender: Male		Surname: Nurdin		Sex: Other		Date Of Birth: 29 May 2002		View Dates		Building number: 26		Average units a week: 30		Street: Spelding Drive		Average cigarettes a day: 0		Town/City: Wigan		Allergies:		County: Greater Manchester		None		Postcode: WN6 8 LWA			
Home	Demographic	Patient Demographic	Patient Admission																																																																														
SNUR0000008																																																																																	
Firstname: james		Gender: Male																																																																															
Surname: Nurdin		Sex: Other																																																																															
Date Of Birth: 20 February 2		View Dates																																																																															
Building number: 55		Average units a week: 1																																																																															
Street: Town Raod		Average cigarettes a day: 0																																																																															
Town/City: Croston		Allergies:																																																																															
County: Lanchsire																																																																																	
Postcode: P R 2 6 9 R A																																																																																	
Home	Demographic	Patient Demographic	Patient Admission																																																																														
SNUR0000008																																																																																	
Firstname: Alex		Gender: Male																																																																															
Surname: Nurdin		Sex: Other																																																																															
Date Of Birth: 29 May 2002		View Dates																																																																															
Building number: 26		Average units a week: 30																																																																															
Street: Spelding Drive		Average cigarettes a day: 0																																																																															
Town/City: Wigan		Allergies:																																																																															
County: Greater Manchester		None																																																																															
Postcode: WN6 8 LWA																																																																																	

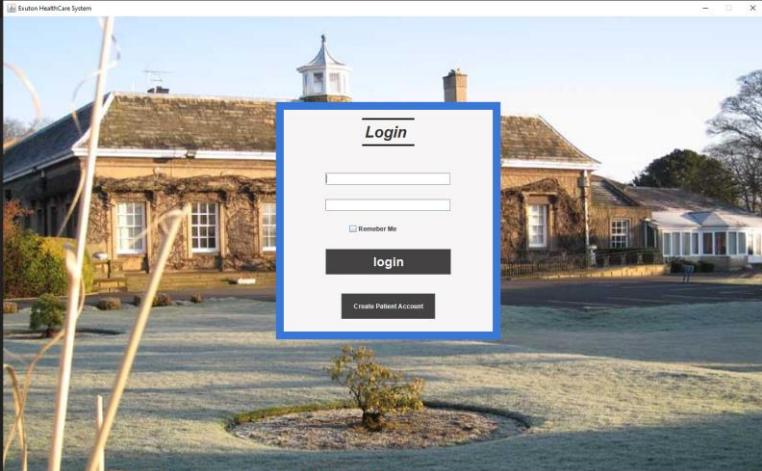
Actual Commentary	At the start of the test as you can see I inspected the text file to see what the original data held as you can see it held the data set U1. I then proceeded to start the method. After logging in as SNUR0000008 I actually couldn't (as it was archived) so I then unarchived the account and re-archived another account, as a result this filled the staff account with some patient accounts (see test 9 for more details). Anyway once I logged in I then proceeded to the demographic panel. From here I could see that the data from the file had been inserted to each field, from here I made the changes to each field so it could follow data set U2. After this had been done I pressed the update demographic button. This caused the system to create a temporary instance of staff which then received the attributes and was passed through to a validation method. As everything was valid the system accepted the input then returned true which caused the true instance to update along with the details being written to file. When I went to file I saw that the changes had been correctly made, because of this I will accept the test and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

Test Plan 43 Objective No. 43, Logout Users

Test ID	Test Type	Purpose/Expected Output	Pass?
43 .1	Functionality	For this feature the user should initially be logged into any account, as this feature is universal. After this they should proceed to press the logout button. When they do this the system should generate a popup informing the user about whether they want to proceed with the action. The user should press the yes button. When this occurs all the systems instances should be set back to null and the user be returned back to the login. Panel Once here the system should have cleared the fields when the user originally logged into the system.	Rectified
43 .2	Validation	The reason that this test has been omitted from occurring is due to the fact that the feature does not need to be validated, as the user has only two valid inputs for the feature, yes they want to logout and no they don't. Because of this we can skip validation and move directly to navigation.	Not performed
43 .3	Navigation	For this test initially the user will be located at the patient user homepage (), however this process will work regardless of the user's current panel location. After selecting the logout button at the top of the panel a two state choice popup should generate informing the user if they want to confirm that they want to logout. If they select yes the user then has their panel order cleared and set to the login panel, as well as this the system should also clear all major user instances. Finally the credentials of the logout box should be cleared. One last thing to mention is that some select panels should also have their generated state refreshed back to false.	

Test ID	43.1
Data Set	N/A
Evidence	 <p>The screenshot shows the Exuton HealthCare System interface. At the top, there is a navigation bar with tabs: Home (selected), Demographic, Admission, Notifications, Glossary, and Logout. The main content area displays a patient profile for James Nurdin, with the ID PABB0000001. The profile includes a placeholder image, contact information (Phone: 09484727998, Sex: Male, D.O.B: 28/05/2002), address (Address: 55 Town Road, Croston PR269RQ, Lancashire), and allergies (Allergies: None). Below the profile, a 'Notifications' section states 'You currently have no notifications.' A 'Logout?' confirmation dialog box is open in the top right corner. In the center, a 'Next Appointment' box shows details: Date 18/03/2020, Consultant CNUR000001, Time 10:01, and Room PENDING. At the bottom, there is a 'Login' section with fields for Username and Password, a 'Remember Me' checkbox, a 'login' button, and a 'Create Patient Account' link.</p>
Actual Commentary	<p>For this test I was initially located at the patient homepage. After pressing the logout button I then selected the yes button. After this I was then brought back to the login page. However when I looked at the username box I saw that the field contained the username I logged in as. Because of this I will have to fail the test as for security reasons I don't like the idea the last user can be known.</p>

Further actions /Enquiry	<p>From the initial search of the system there was no code that initially showed what seemed to add the username to field. What was even weird was that the system also correctly included cleared the login username field. Because of this I went to the text field instance and saw two things (the initial key press action listener that I knew was not the source of the error) and a custom length limiter class extending from a document listening class. (Because of this I went to check out this class). After looking around I came across a line which included the length of the line being bounded values only being greater than zero. As a result I changed this to a less than or equal to statement, and to my surprise it worked. As my assumption goes this method initially checks to see if the length is legal if not it replaces the new text with the most recent valid version. So when I go to clear the text it sees it as an invalid input and causes the method to replace it. Regardless I will call the test now a success and move on.</p>  <pre data-bbox="373 1179 1438 1309"> if (text.length() > 0) { super.replace(fb, offset, length, text, attrs); } </pre>
Rectified	

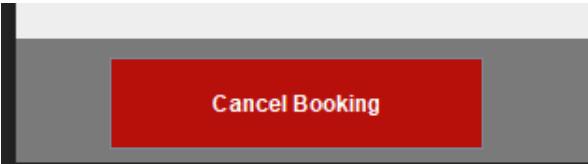
Test ID	43.3
Data Set	N/A
Evidence	<p>he symptoms you have given, nefit with an admission.</p> <p>te an appointment that is at your best eed you to do is login.</p>  <p>Create Admission</p>  <pre> line at index 2 javax.swing.JPanel[,0,0,1458x874,alignmentX=0.0,alignmentY=0.0,border=,flags=9,max javax.swing.JPanel[,0,0,1458x874,alignmentX=0.0,alignmentY=0.0,border=,flags=9,max javax.swing.JPanel[,0,0,1458x874,alignmentX=0.0,alignmentY=0.0,border=,flags=9,max Pointer is at2 ===== Pointer is at0 javax.swing.JPanel[,0,0,1458x874,invalid,alignmentX=0.0,alignmentY=0.0,border=,fla Pointer is at0 </pre>
Actual Commentary	<p>For this test I was initially located at the symptom recommendation panel. When here I then proceeded to press logout button when I did I was presented with a popup asking me whether I wanted to logout or not. Because of this I then selected the button yes. When I did this I was then returned back to the login panel. To check that the panels had indeed cleared, when I did I could see that before I logged out I had three active panels and that I was currently at index 2. After logging out only one panel existed and I was at index zero. Because of this I will regard the test as a success and move on.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

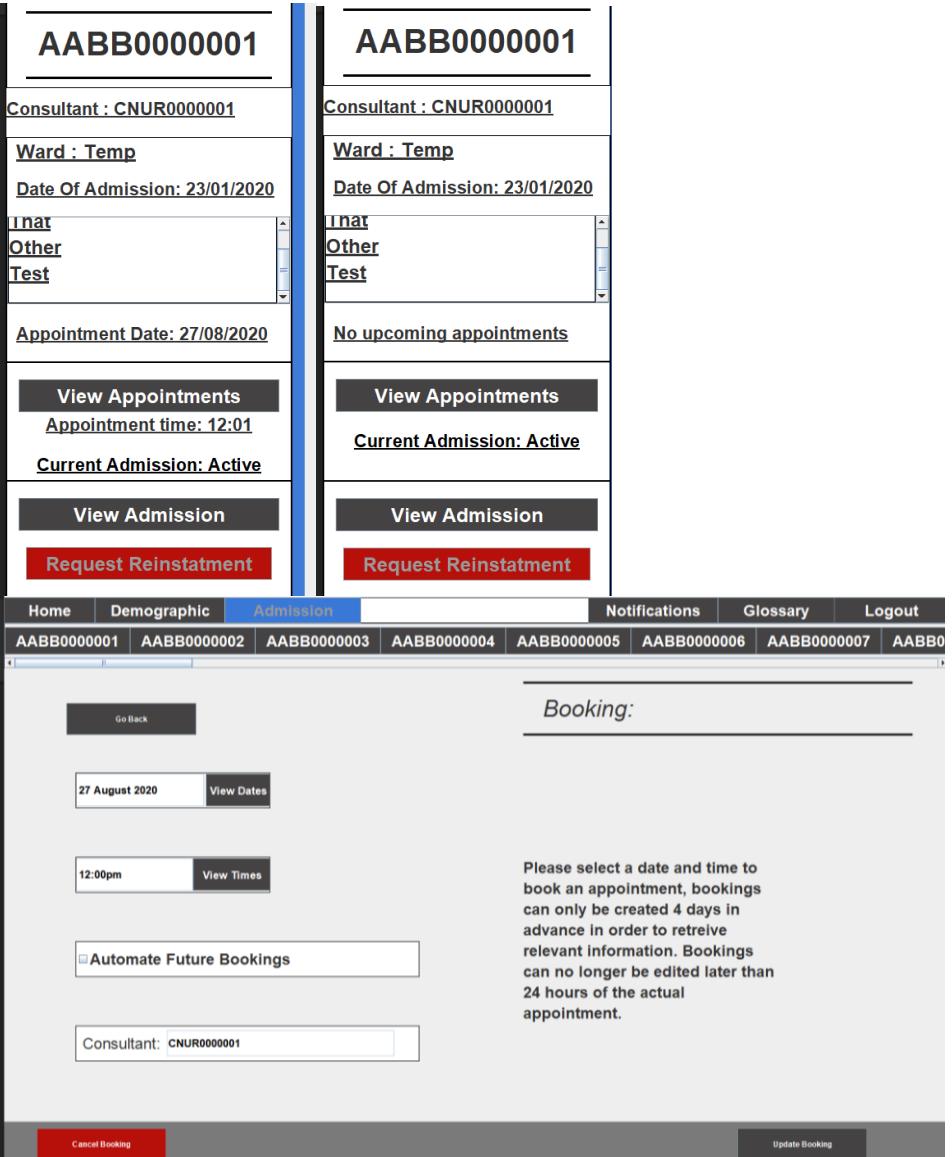
Test Plan 44 Objective No. 44, Remember Me

Test ID	Test Type	Purpose/Expected Output	Pass?
44 .1	Functionality	Fortunately this is the last objective we will have to omit on the system. This is because the feature was predicted to be implemented within the last few days of testing but as time now begins to push close to the deadline it seems that with the current state of the system and the need to implement file encryption sooner rather than later I will have to omit the feature, while it could have been a nice quality of life improvement the feature would probably have taken at least a solid few hours to properly put in and then fully test. With so much to get in I will just have to avoid the feature and focus on getting the testing done. Because of this I will omit the objective.	
44 .2	Validation	<i>The test is not needed as the objective is no longer being used in the system</i>	
44 .3	Navigation	<i>The test is not needed as the objective is no longer being used in the system</i>	

Test Plan 45 Objective No. 45, Cancel bookings

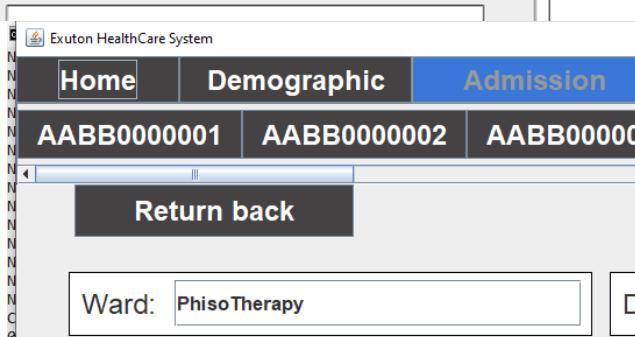
Test ID	Test Type	Purpose/Expected Output	Pass?
45 .1	Functionality	For this test the system the user will select an admission with an active booking which is in date. When selecting the view admission button the system should then proceed to move the user to the booking panel. Once here the user should then be located at the booking panel. Once here the system should have used the current admission instance and have all the relevant fields present on the system. From here the user should then proceed to press the cancel booking button at the bottom left of the panel. Once this has been pressed the system should then call the method for deleting the booking this should proceed with the initial removing of the booking in the patient file then followed by the deleting of the consultant's booking instance. After this the instance in memory should be set to null as the user is returned to the admission home screen.	
45 .2	Validation	<i>As the feature requires no data which needs checking, the test for the validation doesn't need to be done as the user can only select the button to delete the validation. To add to this as the button is only active for admissions with existing bookings (see test 19.1) we don't need to visually test to see that the button is appearing when it needs to either. Because of this we can proceed to the next test.</i>	Not performed
45 .3	Navigation	For this test we will go more in depth to see the visual implications of deleting the admission's booking. Initially the user should be located at the admission homepage, here they should see in the contact bar the instance's attributes, once they see this they should proceed to press the view admission button followed by the user then being relocated to the booking panel, here like in test 19.1 we should see the instances information assigned to the boxes, after this the user should then press the red button which should be enabled. After doing this the user should be brought back to the admission homepage where the admission should have been deleted, see test 45.1. However what they should see is that the booking information that used to be present is no longer there. The panel order should be as follows: admissionHomepagePanel - viewAppointmentPanel - admissionHomepagePanel	

Test ID	45.1
Data Set	N/A
Evidence	<pre>PABB0000001,a,Nurdin,James 0 PABB0000001,a,Nurdin,James AABB0000001,CNUR0000001,26 BABB0000001,12:01,:DABB0000001@09/02/2020 19: DABB0000001@09/02/2020 19:</pre>  <pre>CNUR0000001,ENUR0000001,tewwet#wetwet,1,wersdf PABB0000001,AABB0000001#PABB0000001,AABB0000001: BABB0000001,12:01,27/08/:BABB0000005,10:31,18/03.</pre>
Actual Commentary	For this feature when the user had logged in and proceeded to the booking panel, I initially checked the file for the patient PABB0000001 and saw that the booking was present. Satisfied that I could delete a booking I then proceeded to then returned back to the system and then pressed the view booking button. This caused me to be moved to the booking panel, where the data from the file was in the fields, after then pressing the delete button the system called the delete method. When this occurred the first thing that occurred was that the location for both instances of the bookings where read from file and deleted, after this the files where then written back to file excluding the booking. After this the system proceeded to clear the user instance. Finally when this had occurred I then was returned back to the homepage and saw that the booking no longer existed. Finally the last check I made was in the entities files where I could see the changes had been made. Because of this I will accept the test and move on.
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	

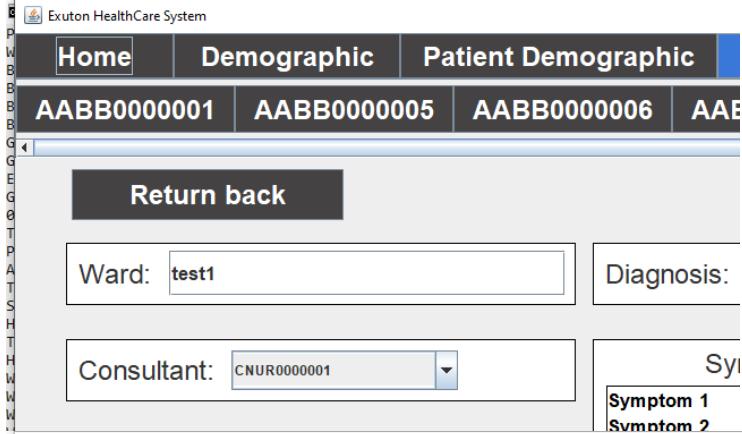
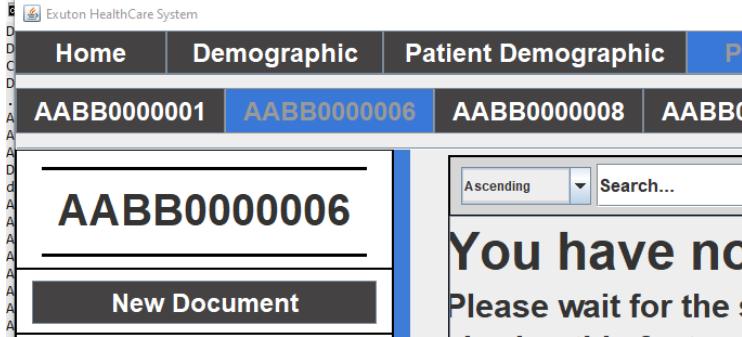
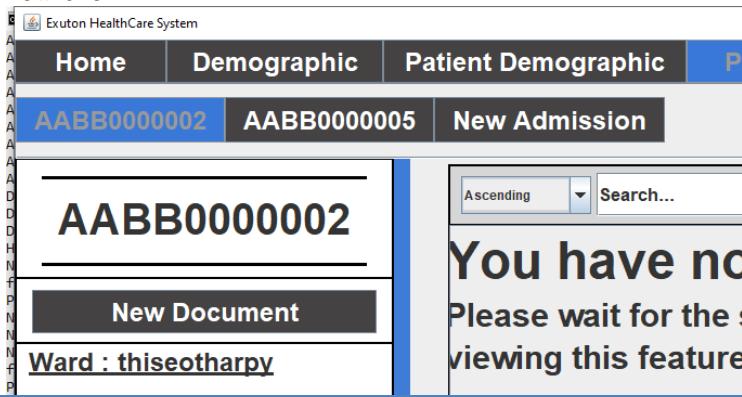
Test ID	45.3
Data Set	N/A
Evidence	 <p>The evidence consists of two side-by-side screenshots of a software application interface. The left screenshot shows the 'Admission' panel for patient 'AABB0000001'. It displays basic patient information (Consultant: CNUR0000001, Ward: Temp, Date Of Admission: 23/01/2020), a dropdown menu ('Inpatient', 'Other', 'Test'), and appointment details (Appointment Date: 27/08/2020). Below these are buttons for 'View Appointments' (Appointment time: 12:01) and 'Current Admission: Active'. Further down are 'View Admission' and 'Request Reinstatement' buttons. The right screenshot shows the 'Booking' panel for the same patient. It has a similar layout with basic patient info and a dropdown menu. Below these are buttons for 'View Appointments' (Current Admission: Active) and 'View Admission'. A red 'Request Reinstatement' button is also present. At the bottom of both panels is a navigation bar with links for Home, Demographic, Admission, Notifications, Glossary, and Logout.</p>
Actual Commentary	<p>For this test I logged in as the user and was greeted by the admission home panel, at this point I could see that a booking existed on the account due to it being highlighted by the date and time in the admission contact bar. After pressing the view admission button I was then passed through to the booking panel, during which the system then proceeded to then also assign the corresponding booking values to the fields also, this can be seen in the screenshot. As the booking entity existed the cancel button was also enabled and made red indicating that it is operational. After then pressing the button I was then immediately returned back to the admission panel where I was able to see that the contact bar also updated to include the new instances that where emptied, in their places was the string containing the text "No Upcoming appointments". As the system managed to successfully delete the admission along with the correct navigation between panels we can accept the test and move on.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	

Test Plan 46 Objective No. 46, Determining a consultant for an admission

Test ID	Test Type	Purpose/Expected Output	Pass?
46 .1	Functionality	When I enter the system as a staff account, I will need to navigate to the admission panel for the desired patient who we intend to perform the action on, after correctly loading the admission and then seeing the interface generate we will continue and press the edit admission button. This should cause the system then to generate the correct panel, here I will need to then select an active consultant on the system. In the back end the system, initially should have loaded all the active consultant ID's on the system and store them in a string array for me to then select in the edit admission panel, in order to be a success no inactive accounts should then be selectable by the user. Also this feature should be unavailable to the patient, so when we log in as them we should be unable to change the consultant on the panel.	Rectified
46 .2	Validation	Because we are utilising a drop down combo box to hold the consultants on the system we have no need to validate them. In the test for 46.1 the system should automatically identify correct consultants and will add them to the list. As a result no need for testing validation needs to occur, as this is clearly a functionality issue. Regardless I will proceed to omit this test and move onto the next test.	Not performed
46 .3	Navigation	For this test the user will initially reside in the home screen for their entity. Here in this part of the system the employee then should select a patient, when this occurs the system will then proceed to initialise the desired patient (see test 47) and pass the instance along with me to the admission homepage. When this occurs the system should then try to correctly generate the panel and all the respective information. After the user then selects the edit admission button they should be brought to a new panel now containing more information regarding the individual admission. At this panel the system should use the list of active consultants, which was initialised at the start of the system to show the user all the available staff, after one is selected the user should then press update demographic causing the admission to be updated, along with the consultant (see test 33.1). Finally the user is returned home where changes can be seen in consultant.	

Test ID	46.1
Data Set	ConsultantID
Evidence	<p>CNUR000001 CNUR000001 CNUR000003 CNUR000009 CTOM000001</p> <p>Ward: PhisoTherapy Diagnosis: Flu</p> <p>Consultant: CNUR000001</p> <p><input type="checkbox"/> Discharged</p> <p>Symptoms: Fever Cough Shortness of breath</p>  <p>Ward: PhisoTherapy</p> <p>Consultant: CNUR000001</p>
Actual Commentary	When I started the system, I then proceeded to the intended destination. However when I loaded the panel I was faced with a problem. When trying to select the desired consultant, I could see that all options were available. In case this was true and the system was performing normally and that all consultants were active, I logged off and went back in as a management entity. I then proceeded to try and archive an account as the system would produce a list of all accounts and their current status. Unfortunately as you can see in the evidence some of the accounts were inactive. Because of this I will have to fail the test. Despite this I continued to check whether the patient's page disabled the drop down box, as this had occurred we can say that the test has been partially successful.

Further actions /Enquiry	<p>consultant account for CNUR0000001 is active consultant account for CNUR0000003 is archived consultant account for CNUR0000009 is active consultant account for CTOM0000001 is active</p> <table border="1" data-bbox="358 384 1394 473"> <tr> <td>Ward: PhisoTherapy</td><td>Diagnosis: Flu</td></tr> </table> <table border="1" data-bbox="358 496 1394 698"> <tr> <td>Consultant: <input type="button" value="CNUR0000001"/> <input checked="" type="button" value="CNUR0000001"/> <input type="button" value="CNUR0000009"/> <input type="button" value="CTOM0000001"/></td><td>Symptoms: Fever Cough Shortness of breath</td></tr> </table> <p><input type="checkbox"/> Discharged</p> <p>The logical error had occurred because the method which assigns the array of consultantIDs had accidentally called for the entire system consultant list, when we wanted the method similar to the one used for staff in the patient creation method used in test 1.1, in which all the instances of the entity currently are "Active on the system". After calling the correct method and loading the panel I could see that the correct list was used. As a result we can now regard the test as a success.</p>	Ward: PhisoTherapy	Diagnosis: Flu	Consultant: <input type="button" value="CNUR0000001"/> <input checked="" type="button" value="CNUR0000001"/> <input type="button" value="CNUR0000009"/> <input type="button" value="CTOM0000001"/>	Symptoms: Fever Cough Shortness of breath
Ward: PhisoTherapy	Diagnosis: Flu				
Consultant: <input type="button" value="CNUR0000001"/> <input checked="" type="button" value="CNUR0000001"/> <input type="button" value="CNUR0000009"/> <input type="button" value="CTOM0000001"/>	Symptoms: Fever Cough Shortness of breath				
Rectified					

Test ID	46.3
Data Set	N/A
Evidence	 
Actual Commentary	<p>After logging into the consultant I saw that the patient had successfully been moved to the new one.</p> 
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

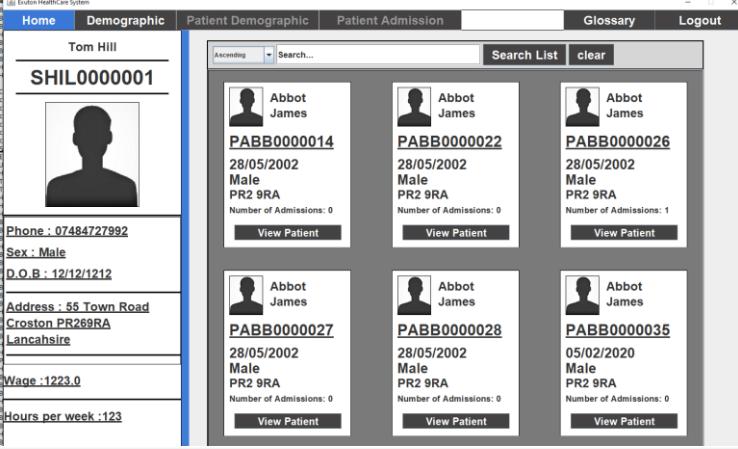
Test Plan 47 Objective No. 47, Read Patient information

Test ID	Test Type	Purpose/Expected Output	Pass?
47 .1	Functionality	<p>For the objective I will briefly outline what I expect from the feature. After being given access to the account, due to logging in (see test 6.1) the following will occur:</p> <p>Once the system has the array the first line should be split using “,” every index of this array will be assigned to a particular field. Here at this point the array can then be used to assign every attribute held in the user class, this process is universal regardless of entity type.</p> <p>Using the number of admissions assigned at the demographic the system should successfully create an instance of an array of admissions using the given number as a length, for the line currently holding the admission the system will loop through every line beneath it until the end has been reached or that the next admission appears.</p> <p>For the admission information the system should split the line into an array, similar to the demographic the indexes in the array assign themselves directly to a particular field, here we create a new instance of admission.</p> <p>After the admission has been created we then immediately check for a booking, if one exists we can perform the same type of process and generate an instance booking from the array obtained by splitting the line. Now as this booking is unique to the admission a reference is now attached to the admission in the form of an attribute.</p> <p>Now for the number of documents claimed to have existed the system will now perform a loop iterating through every document that exists for the admission by reading a line per document, splitting it into fields then assigning the fields to an instance. Followed by the instance of document being attached to the array, where the array is attached to the admission.</p>	
47 .2	Validation	While the retrieving of this entity is critical for the system to work without any disturbances, there is nothing the system can do to validate the data when it is read from file. Hypothetically if erroneous data was to make it to file, any time the system tries to use it an error will occur, so rather than trying to stop errors causing issues when being read, the aim is to prevent erroneous data being written to file ad hence the heavy validation used throughout. Because of the pointless validating data from file is I will omit the test.	Not performed
47 .3	Navigation	As this test is entirely based around file reading and then instance reading the test for navigation and other graphical nuances is unnecessary and so can be omitted, this can also be reasoned due to the fact that the instance retrieving is used heavily throughout the system and is only here to convert the contents of the file into usable data. Regardless we can omit the test because there is no need for it.	Not performed

Test ID	4.1
Data Set	PABB0000001
Evidence	<pre> PABB0000001 DABB0000017 DABB000001 DABB0000018 DABB0000002 DABB0000001 DABB0000019 DABB0000003 DABB0000002 DNUR0000020 DABB0000004 DABB0000003 DNUR0000021 AABB0000007 DABB0000004 DNUR0000022 AABB0000008 DABB0000005 DNUR0000023 AABB0000009 DABB0000006 DNUR0000024 DABB000001 DABB0000007 DNUR0000025 AABB0000010 DABB0000008 DNUR0000026 AABB0000011 DABB0000009 AABB000001 AABB0000012 AABB0000020 DABB0000010 AABB0000013 BABB0000021 DABB0000011 AABB0000014 DABB0000001 DABB0000012 AABB0000015 AABB0000021 DABB0000013 AABB0000016 AABB0000022 DABB0000014 AABB0000017 AAB8000023 DABB0000015 AABB0000018 AABB0000024 DABB0000016 AABB0000019 AABB0000025 DABB0000001 </pre> <p>While it would be impossible to output every piece of data that was generated I think just outputting the IDs would be enough evidence from a backend point of view, as there is plenty proof used in every test.</p>
 <p>James Nurdin PABB0000001 Phone : 09484727998 Sex : Male D.O.B : 28/05/2002 Address : 55Town Road Croston PR269RQ Lancashire Allergies : None Linked Staff Member: SHAR0000001</p>	<p>Notifications.</p> <p>You currently have no notifications.</p> <p>Next Appointment Date <u>18/03/2020</u> Consultant <u>CNUR0000001</u> Time <u>10:01</u> Room <u>PENDING</u></p>
Actual Commentary	While it won't be necessary at all to go into as much detail as mentioned in the expectation I will go through a run down of what happened. After logging in, the system then called for the file containing the entities details to be read. After this was called the first line was immediately split into a new array just for the demographic attributes. For this line the indexes had a constant representation for what field they would represent, actually this is true for every line in the file. Anyway after the new instance of patient was initialised it then retrieved all the admissions using the method expected where the system manually looped through every admission where both documents and bookings were also pulled. Finally after this occurred my instance was ready and I had it display a few attributes before generating the homepage, due to this and the countless tests in dev testing I will accept the test.
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

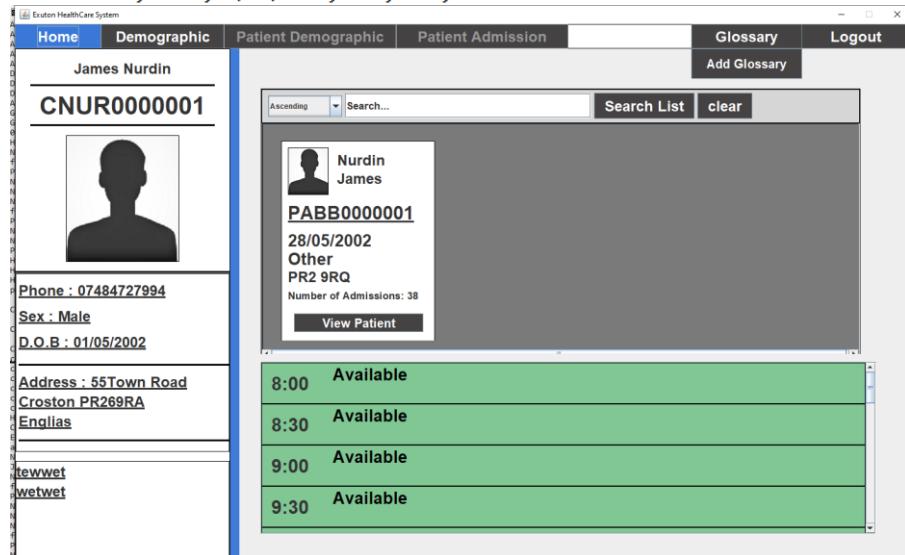
Test Plan 48 Objective No. 48, Read Staff information

Test ID	Test Type	Purpose/Expected Output	Pass?
48.1	Functionality	<p>For the objective I will briefly outline what I expect from the feature. After being given access to the account, due to logging in (see test 6.1) the following will occur:</p> <p>Once the system has the array the first line should be split using “,” every index of this array will be assigned to a particular field. Here at this point the array can then be used to assign every attribute held in the user class, this process is universal regardless of entity type.</p> <p>Following this the most basic feature out of the three entities occur, the next index in the general array should be split in this array and should hold a PatientID. Now a new array is created for patient instances, where here each PatientID is passed through a simpler version of the patient pulling from file (like test 47.1 however no admissions or bookings etc are pulled)</p>	
48 .2	Validation	<p>While the retrieving of this entity is critical for the system to work without any disturbances, there is nothing the system can do to validate the data when it is read from file. Hypothetically if erroneous data was to make it to file, any time the system tries to use it an error will occur, so rather than trying to stop errors causing issues when being read, the aim is to prevent erroneous data being written to file ad hence the heavy validation used throughout. Because of the pointless validating data from file is I will omit the test.</p>	Not performed
48.3	Navigation	<p>As this test is entirely based around file reading and then instance reading the test for navigation and other graphical nuances is unnecessary and so can be omitted, this can also be reasoned due to the fact that the instance retrieving is used heavily throughout the system and is only here to convert the contents of the file into usable data. Regardless we can omit the test because there is no need for it.</p>	Not performed

Test ID	48.1
Data Set	SHILO000001
Evidence	<p>To prevent the system from being overloaded with ID's I believe that just the displaying of the first few attributes of the entity will be enough for this entity along with a confirmation method for each patient, unlike the patient in an isolated looking at the results from just 1 patient there would be hundreds of ID's that would have been generated and so it would be much simple to indicate proof of functionality by a few fields, regardless for even more proof just use the Development testing document.</p>  <p>The screenshot shows a search results page for patient demographic data. The search term 'SHILO000001' was entered. The results show six patient entries, each with a thumbnail, name, ID, date of birth, gender, address, and admission count. Each result has a 'View Patient' button.</p> <pre> SHILO000001,EHIL000001,Uc4g2De,Hill,Tom,55,Town Road,Croston,PR269RA,07484727992,English,A +,0,12,12/12/1212,Christian,None,Male,,false,false,Male,Lancashire,11/02/20 20,1223.0,123,false 13,PABB0000014,PABB0000022,PABB0000026,PABB0000027,PABB0000028,PABB0000035, PABB0000038,PABB0000040,PABB0000042,PABB0000044,PABB0000045,PABB0000047,PAB B0000048, SHILO000001 EHIL000001 Uc4g2De Hill Tom Tried loading top bar HERE 2 HERE 3 HERE Basic patient details retrieved:PABB0000014,Abbot,James,PR269RA Basic patient details retrieved:PABB0000022,Abbot,James,PR269RA Basic patient details retrieved:PABB0000026,Abbot,James,PR269RA HERE Basic patient details retrieved:PABB0000027,Abbot,James,PR269RA Basic patient details retrieved:PABB0000028,Abbot,James,PR269RA Basic patient details retrieved:PABB0000035,Abbot,James,PR269RA HERE Basic patient details retrieved:PABB0000038,Abbot,James,PR269RA Basic patient details retrieved:PABB0000040,Abbot,James,PR269RA Basic patient details retrieved:PABB0000042,Abbot,James,PR269RA HERE Basic patient details retrieved:PABB0000044,Abbot,James,PR269RA Basic patient details retrieved:PABB0000045,Abbot,James,PR269RA Basic patient details retrieved:PABB0000047,Abbot,James,PR269RA HERE </pre>
Actual Commentary	<p>While it won't be necessary at all to go into as much detail as mentioned in the expectation I will go through a rundown of what happened. After logging in, the system then called for the file containing the entities details to be read. After this was called the first line was immediately split into a new array just for the demographic attributes. For this line the indexes had a constant representation for what field they would represent, actually this is true for every line in the file. Anyway after the new instance of staff was initialised it then retrieved all the patients held in the second line by splitting each one and then calling the method which retrieved the essential attributes for the home screen cards. Finally after this occurred my instance was ready and I had it display a few attributes before generating the homepage, due to this and the countless tests in dev testing I will accept the test.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

Test Plan 49 Objective No. 49, Read consultant Information

Test ID	Test Type	Purpose/Expected Output	Pass?
49 .1	Functionality	<p>Unlike test 47 this objective is quite small in comparison, despite this the test exceeds the functionality of test 48. Initially just like the past two tests before it upon the system recognising the user has entered the correct information (see test 6) the system will properly start. The entire file should be read and held in a single string array. At index 0 the system should call the <code>.Split()</code> command using the intended value of <code>,</code> to determine new indexes, after this has occurred the system will then use the static index locations to write the demographic or attributes of the superclass User to a new instance.</p> <p>After this the system should then iterate for the following number of patients that were held at index 1. In the for loop the system should iterate for the number of patients specified.</p> <p>In the loop at the first index the admission should be split into an array where the system uses the static locations of attributes to determine the fields for the instance of Admission.</p> <p>After this a while loop should be employed to retrieve any bookings that may have been created at some point in the systems lifespan (see test 5), this should iterate until the next admission occurs or the end of the array is reached.</p> <p>Finally once again the instances of the bookings should be initialised and then held in a multidimensional array along with the admissions</p>	
49 .2	Validation	While the retrieving of this entity is critical for the system to work without any disturbances, there is nothing the system can do to validate the data when it is read from file. Hypothetically if erroneous data was to make it to file, any time the system tries to use it an error will occur, so rather than trying to stop errors causing issues when being read, the aim is to prevent erroneous data being written to file ad hence the heavy validation used throughout. Because of the pointless validating data from file is I will omit the test.	Not performed
49 .3	Navigation	As this test is entirely based around file reading and then instance reading the test for navigation and other graphical nuances is unnecessary and so can be omitted, this can also be reasoned due to the fact that the instance retrieving is used heavily throughout the system and is only here to convert the contents of the file into usable data. Regardless we can omit the test because there is no need for it.	Not performed

Test ID	49.1
Data Set	CNUR0000001
Evidence	<p>To prevent the system from being overloaded with ID's I believe that just the displaying of the first few attributes of the entity will be enough for this entity, unlike the patient in an isolated looking at the results from just 1 patient there would be hundreds of ID's that would have been generated and so it would be much simple to indicate proof of functionality by a few fields, regardless for even more proof just use the Development testing document</p> <p>CNUR0000001 ENUR0000001 a Nurdin James Next patient found a patient PatientID PABB0000001</p> <pre>CNUR0000001,ENUR0000001,a,Nurdin,James,55,Town Road,Croston,PR269RA,07484727994,English,A +,0,12,01/05/2002,None,@,Male,None,false,false,Male,Englias,05/03/2020,12.0 ,12,false tewwet#wetwet,1,wersdf PABB0000001,AABB0000001#AABB0000006#AABB0000008#AABB0000026#AABB0000037#AAB B0000038# BABBB000006,10:01,18/03/2020,true,PENDING,CNUR0000001 BABBB000021,09:31,29/02/2020,true,E001,CNUR0000001</pre> 
Actual Commentary	While it won't be necessary at all to go into as much detail as mentioned in the expectation I will go through a run down of what happened. After logging in, the system then called for the file containing the entities details to be read. After this was called the first line was immediately split into a new array just for the demographic attributes. For this line the indexes had a constant representation for what field they would represent, actually this is true for every line in the file. Anyway after the new instance of consultant was initialised it then retrieved each PatientID only followed by any admission instances that said patient had with the consultant and finally the booking instances. Finally after this occurred my instance was ready and I had it display a few attributes before generating the homepage, due to this and the countless tests in dev testing I will accept the test.
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

Test Plan 50 Objective No. 50 , Read management information

Test ID	Test Type	Purpose/Expected Output	Pass?
50 .1	Functionality	Again unfortunately like a few other objectives (27 and 44 to be exact), this one had to be left too late to be included. While this sounds unideal and suggests poor management, I believe it's not. The feature failed to appear in the system due to the fact that the management entity does not need any personalised data whatsoever, from an operation standpoint. While the class does inherit all its attributes from the shared superclass of User, this is purely convenience to call methods rather than utilise attributes. Regardless the feature has not been put in because there is no file to pull the data from and write to as it ultimately would not benefit the system to use.	
50 .2	Validation	The test is not needed as the objective is no longer being used in the system	
50 .3	Navigation	The test is not needed as the objective is no longer being used in the system	

Test Plan 51 Objective No. 51, Searching definitions

Test ID	Test Type	Purpose/Expected Output	Pass?
51.1	Functionality	For this feature the user will enter the glossary once here the system should then proceed to produce the list of definitions. When they have appeared the user will then enter the term they want to search for in the list. After they have entered this value they will press search this should cause the system to then search for the item. It should achieve this by performing a linear search through all the data, when it reaches a value that meets the condition it will add the item to the output list. After the system has went through every item, it should then pass this list through to the user. This list should then contain every term that contains the search term.	
51.21	Validation (Search Field) <Null>	For this validation test the user should then proceed to enter the glossary of the system. When this occurs the user will proceed to ignore the text field on the system. They should then press the search button. This should then cause the field to be passed through to a presence validation check. As the field is null the method should return false to the user. When this occurs the search should terminate followed by a popup which informs the user of the error.	
51.22	Validation (Search Field) <Type>	When the user enters the glossary they should be met with all the terms on the system. In the search box the user should then proceed to enter an illegal data type, an integer value. After this has been done the user should then press the search button. When this occurs the field should then be passed into a validation method checking for data types. As the input contains an illegal character the system should return a boolean value of false. This should then cause the search to prematurely terminate followed by the generation of a popup informing them of the error.	
51.23	Validation (Search Field) <Extreme>	For the final validation for the objective the user should then proceed to enter at least 26 characters, "A". After this has been done the user should then press the search button located in the same outer box. When this occurs before the item is searched the field's length is checked in a validation method. As it greatly exceeds the length the method should return a boolean value of false. As a result the system should terminate the search early followed by generation of a popup informing them.	
51.3	Navigation	When the user presses the glossary button a new window should be generated along with all the components and definitions, see test 38. When the user enters a term they want to find they will then press the search button. This causes the search to occur, the return data will return a multidimensional array for terms and definitions. This list should then be passed into the same method which initiated the original list, this should cause the list of items to then be generated where the term and definition can be created.	

Test ID	51.1				
Data Set	Search term "Th"				
Evidence	patientHomepagePanel Found: Cogilith Found: Cogilith Found: Cogilith Found: Cogilith Found: Kwilith Found: Kwilith Found: Kwilith Found: Livepath Found: Livepath Found: Npath Found: Npath Found: Riffpath Found: Riffpath Found: Riffpath Found: Skalith Found: Skalith Found: Skalith Found: Skalith Found: Skalith Found: Skalith Found: Thoughtbeat Found: Thoughtblab Found: Thoughtblab Found: Thoughtbridge Found: Thoughtbridge Found: Thoughtmix Found: Thoughtmix Found: Thoughtsphere Found: Thoughtsphere Found: Thoughtsphere Found: Thoughtsphere Found: Thoughtsphere Found: Thoughtsphere Found: Thoughtsphere Found: Thoughtstorm Found: Thoughtstorm Found: Thoughtstorm Found: Thoughtstorm Found: Thoughtstorm Found: Thoughtstorm Found: Thoughtstorm Found: Thoughtstorm Found: Thoughtstorm Found: Thoughtworks Found: Thoughtworks Found: Thoughtworks Found: Thoughtworks Found: Trilith Found: Trilith Found: Trilith Found: Trilith Found: Trilith Found: Trilith Found: Voolith Found: Voolith Found: Voolith Found: Voolith	<p style="text-align: center;">Ascending ▾ th</p> <hr/> <p>Cogilith</p> <hr/> <p>Cogilith</p> <hr/> <p>Cogilith</p> <hr/> <p>Kwilith</p> <hr/> <p>Kwilith</p> <hr/> <p>Kwilith</p> <hr/> <p>Livepath</p> <hr/> <p>Livepath</p>			
Actual Commentary	<p>For this test I started the system and proceeded to load the glossary by pressing the button. After this I then entered the term "Th" in the search bar and pressed enter. What then happened was that the system then performed the linear search on all the data. When this occurred every time an item that met the search query was then added to a new string array, where I then printed the result. After this and the loop ended the list was then returned back to me where I could see all the items that met the search. As a clarification the data in the evidence is correct as I utilised the random data generating website "Mackaroo" to generate custom definitions which used the words of random companies to generate the terms, however as the data set was small for 1000 entities the repeating of names occurred. As a result of this I can accept the test and move on.</p>				
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.				
Rectified	N/A				

Test ID	51.21
Data Set	Search term
Evidence	<p>A screenshot of a user interface showing a search field with the word "Search..." and an "Ascending" dropdown. A modal window titled "Message" displays the error "Invalid querey, missing." with an "OK" button.</p>
Actual Commentary	Here I started the test at the glossary page, while here I could see all the definitions in front of me. From here I then went to straight to the search button where I had pressed search. What happened was that the system retrieved the data from the field which was then passed through a validation method. As the field was null the system detected the issue and then returned back a boolean value of false. This value then issued the search to be immediately terminated followed by the generation of a popup window informing me of the error that had occurred. Because of the test meeting expectations I will accept it.
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

Test ID	51.22
Data Set	Search term
Evidence	<p>A screenshot of a user interface showing a search field with the character "!" and an "Ascending" dropdown. A modal window titled "Message" displays the errors "Invalid querey, Invalid dataType." with an "OK" button. Below the search field, the word "Zoooveo" is visible.</p>
Actual Commentary	When initiated the test I was located at the glossary page, as expected all definitions had correctly generated. From here I then went to straight to the search box and proceeded to enter the illegal character of "!" after this I had pressed the search button. What happened after was that the system then retrieved the data from the field which was then passed through a validation method. As the field contained a non-letter character the system detected the issue and then returned back a boolean value of false. This value then issued the search to be immediately terminated followed by the generation of a popup window informing me of the error that had occurred. Because of the test meeting expectations I will accept it.
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

Test ID	51.23
Data Set	Search term
Evidence	 <p>A screenshot of a software interface showing a search bar with the text "AAAAAAA...AAAAA" and a dropdown menu set to "Ascending". Below the search bar is a search result table with one row containing the text "Zooveo" and "Donec odio jus lacinia nisi ver". To the right of the search bar is a "Message" dialog box with an "i" icon, the text "Invalid query, Term too long.", and an "OK" button.</p>
Actual Commentary	<p>For this test I initiated testing at the glossary panel, here I could see all the terms that had been correctly read from file. After seeing this I then proceeded to enter the character "A" at least 35 times. When this had been done I then pressed the search button at the top of the search bar. This caused the field to then be passed through to the validation method, here a length check was then done on the data in the field, checking that the length didn't exceed 35 characters. As the field did the system recognised this and then returned the boolean value false, this was then returned back to the method which saw the value and then immediately terminated the search and also generated a popup. Because of the test meeting expectations I will accept it.</p>
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.
Rectified	N/A

Test ID	51.3																				
Data Set	<p style="text-align: center;">Search term “Omba” and “Ombas”</p>																				
Evidence	<p style="text-align: right;">Ascending ▾ Search... Search Library clear Search</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="padding: 5px;">Abata</td><td style="padding: 5px;">Nullam sit amet turpis elementum ligula vehicula consequat. Morbi a ipsum. Integer a nibh. In quis justo. Maecenas rhoncus aliquam lacus.</td></tr> <tr> <td style="padding: 5px;">Abata</td><td style="padding: 5px;">Vestibulum rutrum rutrum neque. Aenean auctor gravida sem. Praesent id massa id nisl venenatis lacinia.</td></tr> <tr> <td style="padding: 5px;">Abatz</td><td style="padding: 5px;">Duis bibendum. Morbi non quam nec dui luctus rutrum. Nulla tellus. In sagittis dui vel nisl. Duis ac nibh. Fusce lacus purus, aliquet at, feugiat non, pretium quis, lectus.</td></tr> <tr> <td style="padding: 5px;">Abatz</td><td style="padding: 5px;">Nam ultrices, libero non mattis pulvinar, nulla pede ullamcorper augue, a suscipit nulla elit ac nulla. Sed vel enim sit amet nunc viverra dapibus. Nulla suscipit ligula in lacus.</td></tr> <tr> <td style="padding: 5px;">Agivu</td><td style="padding: 5px;">Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin risus. Praesent lectus.</td></tr> <tr> <td style="padding: 5px;">Aibox</td><td style="padding: 5px;">Etiam faucibus cursus urna. Ut tellus. Nulla ut erat id mauris vulputate elementum. Nullam varius. Nulla facilisi. Cras non velit nec nisi vulputate nonummy. Maecenas tincidunt lacus at velit. Vivamus vel nulla eget eros elementum pellentesque.</td></tr> <tr> <td style="padding: 5px;">Aibox</td><td style="padding: 5px;">Integer tincidunt ante vel ipsum. Praesent blandit lacinia erat. Vestibulum sed magna at nunc commodo placerat.</td></tr> <tr> <td style="padding: 5px;">Aibox</td><td style="padding: 5px;">Sed ante. Vivamus tortor. Duis mattis egestas metus. Aenean fermentum. Donec ut mauris eget massa tempor convallis. Nulla neque libero, convallis eget, eleifend luctus, ultricies eu, nibh.</td></tr> <tr> <td style="padding: 5px;">Aibox</td><td style="padding: 5px;">Vestibulum rutrum rutrum neque. Aenean auctor gravida sem. Praesent id massa id nisl venenatis lacinia.</td></tr> </tbody> </table> <p style="text-align: right;">Ascending ▾ Ombo Search Library clear Search</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="padding: 5px;">Ombo</td><td style="padding: 5px;">Praesent id massa id nisl venenatis lacinia. Aenean sit amet justo. Morbi ut odio. Cras mi pede, malesuada in, imperdiet et, commodo vulputate, justo. In blandit ultrices enim. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin interdum mauris non ligula pellentesque ultrices. Phasellus id sapien in sapien</td></tr> </tbody> </table> <p style="text-align: right;">Ascending ▾ Ombas Search Library clear Search</p> <div style="background-color: #f0f0f0; padding: 10px; text-align: center;"> <p>No terms were found containing 'Ombas', Would you like to request the term be added to the library?</p> <p style="border: 1px solid black; padding: 2px 10px; margin-top: 5px;">Request term</p> </div>	Abata	Nullam sit amet turpis elementum ligula vehicula consequat. Morbi a ipsum. Integer a nibh. In quis justo. Maecenas rhoncus aliquam lacus.	Abata	Vestibulum rutrum rutrum neque. Aenean auctor gravida sem. Praesent id massa id nisl venenatis lacinia.	Abatz	Duis bibendum. Morbi non quam nec dui luctus rutrum. Nulla tellus. In sagittis dui vel nisl. Duis ac nibh. Fusce lacus purus, aliquet at, feugiat non, pretium quis, lectus.	Abatz	Nam ultrices, libero non mattis pulvinar, nulla pede ullamcorper augue, a suscipit nulla elit ac nulla. Sed vel enim sit amet nunc viverra dapibus. Nulla suscipit ligula in lacus.	Agivu	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin risus. Praesent lectus.	Aibox	Etiam faucibus cursus urna. Ut tellus. Nulla ut erat id mauris vulputate elementum. Nullam varius. Nulla facilisi. Cras non velit nec nisi vulputate nonummy. Maecenas tincidunt lacus at velit. Vivamus vel nulla eget eros elementum pellentesque.	Aibox	Integer tincidunt ante vel ipsum. Praesent blandit lacinia erat. Vestibulum sed magna at nunc commodo placerat.	Aibox	Sed ante. Vivamus tortor. Duis mattis egestas metus. Aenean fermentum. Donec ut mauris eget massa tempor convallis. Nulla neque libero, convallis eget, eleifend luctus, ultricies eu, nibh.	Aibox	Vestibulum rutrum rutrum neque. Aenean auctor gravida sem. Praesent id massa id nisl venenatis lacinia.	Ombo	Praesent id massa id nisl venenatis lacinia. Aenean sit amet justo. Morbi ut odio. Cras mi pede, malesuada in, imperdiet et, commodo vulputate, justo. In blandit ultrices enim. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin interdum mauris non ligula pellentesque ultrices. Phasellus id sapien in sapien
Abata	Nullam sit amet turpis elementum ligula vehicula consequat. Morbi a ipsum. Integer a nibh. In quis justo. Maecenas rhoncus aliquam lacus.																				
Abata	Vestibulum rutrum rutrum neque. Aenean auctor gravida sem. Praesent id massa id nisl venenatis lacinia.																				
Abatz	Duis bibendum. Morbi non quam nec dui luctus rutrum. Nulla tellus. In sagittis dui vel nisl. Duis ac nibh. Fusce lacus purus, aliquet at, feugiat non, pretium quis, lectus.																				
Abatz	Nam ultrices, libero non mattis pulvinar, nulla pede ullamcorper augue, a suscipit nulla elit ac nulla. Sed vel enim sit amet nunc viverra dapibus. Nulla suscipit ligula in lacus.																				
Agivu	Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin risus. Praesent lectus.																				
Aibox	Etiam faucibus cursus urna. Ut tellus. Nulla ut erat id mauris vulputate elementum. Nullam varius. Nulla facilisi. Cras non velit nec nisi vulputate nonummy. Maecenas tincidunt lacus at velit. Vivamus vel nulla eget eros elementum pellentesque.																				
Aibox	Integer tincidunt ante vel ipsum. Praesent blandit lacinia erat. Vestibulum sed magna at nunc commodo placerat.																				
Aibox	Sed ante. Vivamus tortor. Duis mattis egestas metus. Aenean fermentum. Donec ut mauris eget massa tempor convallis. Nulla neque libero, convallis eget, eleifend luctus, ultricies eu, nibh.																				
Aibox	Vestibulum rutrum rutrum neque. Aenean auctor gravida sem. Praesent id massa id nisl venenatis lacinia.																				
Ombo	Praesent id massa id nisl venenatis lacinia. Aenean sit amet justo. Morbi ut odio. Cras mi pede, malesuada in, imperdiet et, commodo vulputate, justo. In blandit ultrices enim. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin interdum mauris non ligula pellentesque ultrices. Phasellus id sapien in sapien																				
Actual Commentary	While I won't dive too deep into the backend I will lightly discuss the process due to its relevancy. After the glossary button was generated the system then created the new window including the list of boxes. When this occurred I then entered the two terms "Omba" and "Ombas" individually, after this had occurred I then proceeded to press the search button. This caused the test that can be seen in test 38.1. Anyway after the array of items are returned the original call method is then used to generate the output where a dynamic number of boxes containing the correct relevant data were generated. After entering the non-existent value "Ombas", the system performed the same search but this time recognised there was no results. As a result the correct output was also generated. Because of the test meeting expectations I will accept it.																				
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.																				
Rectified	N/A																				

Test Plan 52 Objective No. 52, Sorting definitions

Test ID	Test Type	Purpose/Expected Output	Pass?
52.1	Functionality	For this feature when the user starts the Glossary tab they will be greeted by the system like before. Here the user should see a combo box assigned next to the search box. When they see this the user should then proceed to select the descending option as the system will naturally be in an ascending order. Anyway a for loop should occur where the system reverses the index of the card, which is then reassigned to the original array, once all the indexes have done this the original method is called and then displayed to the user.	
52.21	Validation	Because we are utilising a drop down combo box to hold the sort orders on the system we have no need to validate them. As we know there are only two options and either are which are valid and is acceptable there is no need. As a result no need for testing validation needs to occur, as this is clearly a functionality issue. Regardless I will proceed to omit this test and move onto the next test.	Not performed
52.3	Navigation	Here I will test in detail the graphical aspects of the feature. Initially we will start the test at the glossary panel, here all the items have already been generated. After the user presses the combo box the action listener attached should then assume the current order and then proceed to perform the sort corresponding to the selected item. After the return array has been received the same process as performed for tests 38 and 50 should occur for each item in the array, two smaller boxes should generate containing the items' term along with the corresponding definition.	

Test ID	52.1																													
Data Set	N/A																													
Evidence	<p>As the glossary now has 1000 terms I will show the first few indexes of the array before and after for proof.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="vertical-align: top; width: 40%;">Desending order:</td> <td style="vertical-align: top; width: 60%;"> <table style="width: 100%; border-collapse: collapse;"> <tr><td>Zoozzy</td><td>Abata</td></tr> <tr><td>Zooxo</td><td>Abata</td></tr> <tr><td>Zooxo</td><td>Abatz</td></tr> <tr><td>Zooxo</td><td>Abatz</td></tr> <tr><td>Zooveo</td><td>Agivu</td></tr> <tr><td>Zooveo</td><td>Aibox</td></tr> <tr><td>Zooveo</td><td>Aibox</td></tr> <tr><td>Zooveo</td><td>Aibox</td></tr> <tr><td>Zooveo</td><td>Aibox</td></tr> <tr><td>Zooveo</td><td>Ailane</td></tr> <tr><td>Zoonoodle</td><td>Ailane</td></tr> <tr><td>Zoonoodle</td><td>Aimbo</td></tr> <tr><td>Zoonoodle</td><td>Aimbu</td></tr> </table> </td></tr> </table>		Desending order:	<table style="width: 100%; border-collapse: collapse;"> <tr><td>Zoozzy</td><td>Abata</td></tr> <tr><td>Zooxo</td><td>Abata</td></tr> <tr><td>Zooxo</td><td>Abatz</td></tr> <tr><td>Zooxo</td><td>Abatz</td></tr> <tr><td>Zooveo</td><td>Agivu</td></tr> <tr><td>Zooveo</td><td>Aibox</td></tr> <tr><td>Zooveo</td><td>Aibox</td></tr> <tr><td>Zooveo</td><td>Aibox</td></tr> <tr><td>Zooveo</td><td>Aibox</td></tr> <tr><td>Zooveo</td><td>Ailane</td></tr> <tr><td>Zoonoodle</td><td>Ailane</td></tr> <tr><td>Zoonoodle</td><td>Aimbo</td></tr> <tr><td>Zoonoodle</td><td>Aimbu</td></tr> </table>	Zoozzy	Abata	Zooxo	Abata	Zooxo	Abatz	Zooxo	Abatz	Zooveo	Agivu	Zooveo	Aibox	Zooveo	Aibox	Zooveo	Aibox	Zooveo	Aibox	Zooveo	Ailane	Zoonoodle	Ailane	Zoonoodle	Aimbo	Zoonoodle	Aimbu
Desending order:	<table style="width: 100%; border-collapse: collapse;"> <tr><td>Zoozzy</td><td>Abata</td></tr> <tr><td>Zooxo</td><td>Abata</td></tr> <tr><td>Zooxo</td><td>Abatz</td></tr> <tr><td>Zooxo</td><td>Abatz</td></tr> <tr><td>Zooveo</td><td>Agivu</td></tr> <tr><td>Zooveo</td><td>Aibox</td></tr> <tr><td>Zooveo</td><td>Aibox</td></tr> <tr><td>Zooveo</td><td>Aibox</td></tr> <tr><td>Zooveo</td><td>Aibox</td></tr> <tr><td>Zooveo</td><td>Ailane</td></tr> <tr><td>Zoonoodle</td><td>Ailane</td></tr> <tr><td>Zoonoodle</td><td>Aimbo</td></tr> <tr><td>Zoonoodle</td><td>Aimbu</td></tr> </table>	Zoozzy	Abata	Zooxo	Abata	Zooxo	Abatz	Zooxo	Abatz	Zooveo	Agivu	Zooveo	Aibox	Zooveo	Aibox	Zooveo	Aibox	Zooveo	Aibox	Zooveo	Ailane	Zoonoodle	Ailane	Zoonoodle	Aimbo	Zoonoodle	Aimbu			
Zoozzy	Abata																													
Zooxo	Abata																													
Zooxo	Abatz																													
Zooxo	Abatz																													
Zooveo	Agivu																													
Zooveo	Aibox																													
Zooveo	Aibox																													
Zooveo	Aibox																													
Zooveo	Aibox																													
Zooveo	Ailane																													
Zoonoodle	Ailane																													
Zoonoodle	Aimbo																													
Zoonoodle	Aimbu																													
Actual Commentary	<p>Initially I was presented with the glossary home page. Here I then proceeded to select the combo box, after I did the panel took a few seconds whilst it loaded and then looking to command line I was that the action listener had saw the event and correctly called for the list to be put into a descending order, this can be seen by the first screen shot of the data starting at the lowest value (in the alphabet) and moving up to the top. After I had saw this I then saw the graphical component which also reflected the change. After this I then tried to reverse the process by then calling the ascending option, this caused the action listener to then receive the new event which caused the list to be returned to the original order (as seen in the second screenshot). I will discuss the graphical aspect in 53.3 however as the system met expectations I will accept it.</p>																													
Further actions /Enquiry	<p>As no errors have occurred can proceed to the next objective.</p>																													
Rectified	N/A																													

Test ID	52.3																																
Data Set	N/A																																
Evidence	<p>As the glossary now has 1000 terms I will show the top of the list only</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <input style="margin-right: 10px;" type="button" value="Descending"/> <input type="text" value="Search..."/> <input type="button" value="Search Library"/> <input type="button" value="clear Search"/> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr><td>Zoozzy</td><td>Integer tincidunt ante vel ipsum. Praesent blandit lacinia erat. Vestibulum sed magna at nunc commodo placerat.</td></tr> <tr><td>Zooxo</td><td>Quisque ut erat.</td></tr> <tr><td>Zooxo</td><td>Morbi a ipsum. Integer a nibh. In quis justo. Maecenas rhoncus aliquam lacus. Morbi quis tortor id nulla ultrices aliquet. Maecenas leo odio, condimentum id, luctus nec, molestie sed, justo. Pellentesque viverra pede ac diam. Cras pellentesque volutpat dui.</td></tr> <tr><td>Zooxo</td><td>Integer tincidunt ante vel ipsum.</td></tr> <tr><td>Zooveo</td><td>Sed ante.</td></tr> <tr><td>Zooveo</td><td>Sed ante. Vivamus tortor. Duis mattis egestas metus. Aenean fermentum. Donec ut mauris eget massa tempor convallis. Nulla neque libero, convallis eget, eleifend luctus, ultricies eu, nibh. Quisque id justo sit amet sapien dignissim vestibulum. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Nulla dapibus dolor vel est. Donec odio justo, sollicitudin ut, suscipit a, feugiat et, eros. Vestibulum ac est lacinia nisi venenatis tristique.</td></tr> <tr><td>Zooveo</td><td>Morbi vel lectus in quam fringilla rhoncus. Mauris enim leo, rhoncus sed,</td></tr> </tbody> </table> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <input style="margin-right: 10px;" type="button" value="Ascending"/> <input type="text" value="Search..."/> <input type="button" value="Search Library"/> <input type="button" value="clear Search"/> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr><td>Abata</td><td>Nullam sit amet turpis elementum ligula vehicula consequat. Morbi a ipsum. Integer a nibh. In quis justo. Maecenas rhoncus aliquam lacus.</td></tr> <tr><td>Abata</td><td>Vestibulum rutrum rutrum neque. Aenean auctor gravida sem. Praesent id massa id nisl venenatis lacinia.</td></tr> <tr><td>Abatz</td><td>Duis bibendum. Morbi non quam nec dui luctus rutrum. Nulla tellus. In sagittis dui vel nisl. Duis ac nibh. Fusce lacinus purus, aliquet at, feugiat non, pretium quis, lectus.</td></tr> <tr><td>Abatz</td><td>Nam ultrices, libero non mattis pulvinar, nulla pede ullamcorper augue, a suscipit nulla elit ac nulla. Sed vel enim sit amet nunc viverra dapibus. Nulla suscipit ligula in lacinus.</td></tr> <tr><td>Agivu</td><td>Nullam ipsum dolor sit amet, consectetur adipiscing elit. Proin risus. Praesent lectus.</td></tr> <tr><td>Aibox</td><td>Etiam faucibus cursus urna. Ut tellus. Nulla ut erat id mauris vulputate elementum. Nullam varius. Nulla facilisi. Cras non velit nec nisi vulputate nonummy. Maecenas tincidunt lacus at velit. Vivamus vel nulla eget eros elementum pellentesque.</td></tr> <tr><td>Aibox</td><td>Integer tincidunt ante vel ipsum. Praesent blandit lacinia erat. Vestibulum sed magna at nunc commodo placerat.</td></tr> <tr><td>Aibox</td><td>Sed ante. Vivamus tortor. Duis mattis egestas metus. Aenean fermentum. Donec ut mauris eget massa tempor convallis. Nulla neque libero, convallis eget, eleifend luctus, ultricies eu, nibh.</td></tr> <tr><td>Aibox</td><td>Vestibulum rutrum rutrum neque. Aenean auctor gravida sem. Praesent id massa</td></tr> </tbody> </table>	Zoozzy	Integer tincidunt ante vel ipsum. Praesent blandit lacinia erat. Vestibulum sed magna at nunc commodo placerat.	Zooxo	Quisque ut erat.	Zooxo	Morbi a ipsum. Integer a nibh. In quis justo. Maecenas rhoncus aliquam lacus. Morbi quis tortor id nulla ultrices aliquet. Maecenas leo odio, condimentum id, luctus nec, molestie sed, justo. Pellentesque viverra pede ac diam. Cras pellentesque volutpat dui.	Zooxo	Integer tincidunt ante vel ipsum.	Zooveo	Sed ante.	Zooveo	Sed ante. Vivamus tortor. Duis mattis egestas metus. Aenean fermentum. Donec ut mauris eget massa tempor convallis. Nulla neque libero, convallis eget, eleifend luctus, ultricies eu, nibh. Quisque id justo sit amet sapien dignissim vestibulum. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Nulla dapibus dolor vel est. Donec odio justo, sollicitudin ut, suscipit a, feugiat et, eros. Vestibulum ac est lacinia nisi venenatis tristique.	Zooveo	Morbi vel lectus in quam fringilla rhoncus. Mauris enim leo, rhoncus sed,	Abata	Nullam sit amet turpis elementum ligula vehicula consequat. Morbi a ipsum. Integer a nibh. In quis justo. Maecenas rhoncus aliquam lacus.	Abata	Vestibulum rutrum rutrum neque. Aenean auctor gravida sem. Praesent id massa id nisl venenatis lacinia.	Abatz	Duis bibendum. Morbi non quam nec dui luctus rutrum. Nulla tellus. In sagittis dui vel nisl. Duis ac nibh. Fusce lacinus purus, aliquet at, feugiat non, pretium quis, lectus.	Abatz	Nam ultrices, libero non mattis pulvinar, nulla pede ullamcorper augue, a suscipit nulla elit ac nulla. Sed vel enim sit amet nunc viverra dapibus. Nulla suscipit ligula in lacinus.	Agivu	Nullam ipsum dolor sit amet, consectetur adipiscing elit. Proin risus. Praesent lectus.	Aibox	Etiam faucibus cursus urna. Ut tellus. Nulla ut erat id mauris vulputate elementum. Nullam varius. Nulla facilisi. Cras non velit nec nisi vulputate nonummy. Maecenas tincidunt lacus at velit. Vivamus vel nulla eget eros elementum pellentesque.	Aibox	Integer tincidunt ante vel ipsum. Praesent blandit lacinia erat. Vestibulum sed magna at nunc commodo placerat.	Aibox	Sed ante. Vivamus tortor. Duis mattis egestas metus. Aenean fermentum. Donec ut mauris eget massa tempor convallis. Nulla neque libero, convallis eget, eleifend luctus, ultricies eu, nibh.	Aibox	Vestibulum rutrum rutrum neque. Aenean auctor gravida sem. Praesent id massa
Zoozzy	Integer tincidunt ante vel ipsum. Praesent blandit lacinia erat. Vestibulum sed magna at nunc commodo placerat.																																
Zooxo	Quisque ut erat.																																
Zooxo	Morbi a ipsum. Integer a nibh. In quis justo. Maecenas rhoncus aliquam lacus. Morbi quis tortor id nulla ultrices aliquet. Maecenas leo odio, condimentum id, luctus nec, molestie sed, justo. Pellentesque viverra pede ac diam. Cras pellentesque volutpat dui.																																
Zooxo	Integer tincidunt ante vel ipsum.																																
Zooveo	Sed ante.																																
Zooveo	Sed ante. Vivamus tortor. Duis mattis egestas metus. Aenean fermentum. Donec ut mauris eget massa tempor convallis. Nulla neque libero, convallis eget, eleifend luctus, ultricies eu, nibh. Quisque id justo sit amet sapien dignissim vestibulum. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Nulla dapibus dolor vel est. Donec odio justo, sollicitudin ut, suscipit a, feugiat et, eros. Vestibulum ac est lacinia nisi venenatis tristique.																																
Zooveo	Morbi vel lectus in quam fringilla rhoncus. Mauris enim leo, rhoncus sed,																																
Abata	Nullam sit amet turpis elementum ligula vehicula consequat. Morbi a ipsum. Integer a nibh. In quis justo. Maecenas rhoncus aliquam lacus.																																
Abata	Vestibulum rutrum rutrum neque. Aenean auctor gravida sem. Praesent id massa id nisl venenatis lacinia.																																
Abatz	Duis bibendum. Morbi non quam nec dui luctus rutrum. Nulla tellus. In sagittis dui vel nisl. Duis ac nibh. Fusce lacinus purus, aliquet at, feugiat non, pretium quis, lectus.																																
Abatz	Nam ultrices, libero non mattis pulvinar, nulla pede ullamcorper augue, a suscipit nulla elit ac nulla. Sed vel enim sit amet nunc viverra dapibus. Nulla suscipit ligula in lacinus.																																
Agivu	Nullam ipsum dolor sit amet, consectetur adipiscing elit. Proin risus. Praesent lectus.																																
Aibox	Etiam faucibus cursus urna. Ut tellus. Nulla ut erat id mauris vulputate elementum. Nullam varius. Nulla facilisi. Cras non velit nec nisi vulputate nonummy. Maecenas tincidunt lacus at velit. Vivamus vel nulla eget eros elementum pellentesque.																																
Aibox	Integer tincidunt ante vel ipsum. Praesent blandit lacinia erat. Vestibulum sed magna at nunc commodo placerat.																																
Aibox	Sed ante. Vivamus tortor. Duis mattis egestas metus. Aenean fermentum. Donec ut mauris eget massa tempor convallis. Nulla neque libero, convallis eget, eleifend luctus, ultricies eu, nibh.																																
Aibox	Vestibulum rutrum rutrum neque. Aenean auctor gravida sem. Praesent id massa																																
Actual Commentary	<p>When I started the test I was initially greeted by the scroll pane and the search box. After following what was expected I selected the second option in the drop down box. This caused the system to then sort the items into the desired descending order, see test 53.1. When this had occurred, the system would have received the array of terms and definitions, these values where then passed back into the original display method which visually generated the values. After acknowledging that the correct output was achieved I then began reversing the process, by selecting the ascending order, the list was then rearranged so that the first term was the same as the start of the test. Because the sort correctly managed to change the order, I will accept the text and move on.</p>																																
Further actions /Enquiry	As no errors have occurred can proceed to the next objective.																																
Rectified	N/A																																

Test Plan 53 Objective No. 53, Primary key generation

Test ID	Test Type	Purpose/Expected Output	Pass?
52.1	Functionality	<p>For this test we will reside just after the entering of patient details, see test 1.1 and staff for staff see test 4. Regardless of the user that has this task performed to generate the ID the system should use their surname as the only input, which comes pre-validated. Once in the method the initial character should be found. When it is the corresponding line in the general file is then accessed, at the position a binary search is performed to find the index. The search uses something special in which regardless of whether the name exists or not the system will return the location it should be at and a boolean integer informing the system whether it exists or not. If it does then the system just carries on but if not in the list then, the index is then made available in that list by expanding the array and inserting the values. What then occurs is the incrementing of a counter for that ID. This happens regardless of if it is found or not. This value is then converted into a 7 character string by the addition of the string "0" X times. At the end the user type is then concatenated with the first three characters of the surname followed by the 7 digits. The username is then returned, followed by the new list being written back to file.</p>	
52.21	Validation	<p>As this test utilises pre-validated data for input, we have no need to test for its acceptability, For the fields that test it please refer to tests: 1.211, 1.212 and 1.213</p>	Not performed
52.22	Navigation	<p>Again this test is able for omission due to the fact the aspect is objective back end and here to suit the system for functionality purposes only, this means that this test couldn't be performed regardless as there are no visual aspects to the feature we can test.</p>	Not performed

Test ID	53.1
Data Set	N/A
Evidence	<p>P HAR 02 002 0002 00002 000002 username PHAR0000002</p>
Actual Commentary	<p>Initially I began the feature in the first objective, after starting at the new patient panel I entered the account information, including that the surname was Harrison. After pressing the create button, the process of generating the account had begun, during this time the fields had been validated and then accepted. Once this had occurred the method for generating the ID had been called, here the system then found the index the surname "Harrison" was located at and then found the number of people who shared the initial character "H". After this was then found and incremented the system then began to correctly format the value by adding additional "0s" until the length had reached 7. Finally the terms were correctly concatenated and the integer value used to update the file, with the last action being that the ID was then returned to the calling method. Because of the test meeting expectations in generating the primary key, I will accept it.</p>
Further actions /Enquiry	<p>As no errors have occurred can proceed to the next objective.</p>
Rectified	N/A

8.32 Situational/integrated Testing

Justification for Omission

Here while initially I had planned to perform integrated testing for the system, after receiving plenty of proof from alpha testing I have finally conclude there is no justifiable need. As each objective is fairly large the system needs to perform usually at least three or four minor operations on the system to achieve it. After seeing that the system now mainly deals with data from file rather than performing on the instances in memory we will greatly reduce our chances of forgetting to update a value, if we were to immediately write to file. While more work for the file reading, I feel that it is a more worthy compromise compared to the endless contingency bugs and discrepancies I would have received and would have needed to fix. This was a major issue from the prototype and made operations almost impossible to perform one after each other. While I'm not saying these sort of issues have now been fully removed from the system the majority of the system now works in the new way of dealing with data. After dissecting the benefits and drawbacks and weighing the possibilities in my head and finally having a discussion with Phil, ultimately it is in the systems best interests that this test is missed out. We can also justify further cause for omission due the plan of the test anyway. Like initially stated the system performed these tests utilising many different method calls, as the system now uses 46 objectives to work, brute forcing these would result in a number of tests that would be easily too many. While obviously I wasn't going to test every objective against another it's important to note that in most cases I would just keep accepting valid processes. As the system has no need for this moment in time I will ultimately omit the test. The last thing I will say on the matter is this: this should not be a misconstrued attempt by me to offload work, instead as there would be probably one in ten tests that throw a graphical error and actually need testing, I see no need in documenting the rest so I will leave some of this to the beta testers and move onto the discussions.

8.33 One to one discussion and evaluations

Pre-test discussion and overview of users

At this point the system is looking to be at a suitable point for further distributed testing with outside users. However before this me and my brother, who is also is developing software, will perform a lengthy discussion about each other's systems before we both begin the beta testing. This will provide a perfect chance to get someone who knows the system thoroughly, due to his experience with it during the prototype, to discuss what's improved and what could have needed further refinements. This can also allow for some situational testing due to the requirements force the user to continuously alter and create different items on the system. While their input will be considered, there will be no actual applications of their input for this late stage of develop. However if conditions for the introduction are suitable, for instance spellings, I will make sure that they are introduced.

User Alex Nurdin – sibling and fellow computer science student.

While other students generally provide some level of courtesy when performing these social tests, I know it will turn out for the best if me and Alex, in his words "destroy" each other's systems by finding every exploit and bug we can. This should help prepare the system to reduce the amount of errors that come up during the future possible tests made by others. For the sake of preparing the system for the other tests he will perform the same work intended for the others. The major benefit to having Alex come here and test the system will be to allow someone who will actively try and point out faults and will not hold back on his views of the system.

User Suzanne Tomkins– Fellow employee at Euxton.

While Alex does have his benefits being used on the system, the main user I want to handle the system before distributing it to testers is Suzanne. While also having used the prototype she inadvertently will be the one to point out the grammatical and lexical issues most of users will see. While also having worked there can form an idea for how the system will perform at the end, while I don't expect her to initially grasp all the objectives at first, I will expect her to understand a task when I ask her to perform it, for instance create an account and so on.

Results

Alex:

While he wasn't the nicest towards the system, I assume due to natural sibling rivalry, he did really help address some issues towards the system. The largest one being that the appointment panel failed to remove old bookings that had been changed. *The fix was found to be just clearing the hash array before the items where re-added.* Regardless this proved to be quite resourceful and helped prepare the system for the widespread distribution it will receive.

Evidence for fixing of the error.

```
for(int tempcounterBookingIndex = 0;tempcounterBookingIndex<consultant.todaysAppointments.length;tempcounterBookingIndex++)
{
    consultant.todaysAppointments[tempcounterBookingIndex]=null;
}
//now that we have the organised list of appointments we need to hash all the bookings into the correct location
```

Moving past the pleasantries from the test he did have some main issues regarding the **command line interface regarding it to be somewhat "lazy"**. I heavily disagree with this thinking due to the fact there would have been no need to have a panel allocated for isolated features that had could be described as miscellaneous like the archiving of employees. While it could also be argued that a panel for the employee account creation could have been a cleaner and a possible more professional approach, I would counter it by saying the process has and always was designed to be done by the management entity. This entity I made clear would have a fundamental role in demonstrating efficiency for the user experience. For instance we can see this due to the reduced navigation required to move focus between all 23 different fields. The last point I will make regarding this will be that the Gui class has just surpassed 11000 lines of code, an extra two demographic panels along with custom components to hold all the new fields and tables for employees would easily push it to 12000 lines. A large commitment for a small payoff in my opinion. Despite this quarrel we had regarding the issue, the identifying of other problems was helpful.

After eventually moving past this **he then presented some of the following suggestions, while I won't analyse them too deeply I believe that they should be in place for some mild consideration and possible inclusion:**

- **Highlighting of erroneous fields and the combination of errors into one box** – While I really like this idea, the implications to insert them into the system would require an introduction of changing the border of the document box along with the resetting them onto the system once valid data has been entered. Because of this I won't implement them into the system as of now but I would like to consider the possibility later.
- **Editing of dates to by keyboard** – What he means by this is that the user should be able to enter a date much faster than having to go into the date selector and then change the year then the month then the day. Unlike before while I would like it to be easier there is no possible way of me performing this without having to strip out all the validation and date picker settings laid out during development. So I will leave this suggestion out for the time being
- **Remove the command line interface and replace with a graphical window** – see comments at the start of the section
- **Introduce more help boxes with advice on how to use the panel** – Again while I like the sound of this feature it would force the system to introduce an entirely new concept into the system. While also assuming that it would mean a help icon at the side of each page, while it would definitely be introduced at the start of the next version of the system, right now it seems too large to introduce.

Sue:

While Sues testing of the system occurred much faster, due to all the bug fixes that occurred after the test with Alex, overall the test was a much more positive experience with her. Overall while she lacks the programming capabilities to understand how processes worked, she really understood each task I gave her to do. One thing I was really impressed by was when I asked her to create certain entities without asking, a problem I faced often with Alex. Besides this overall she had no overarching tests, and so I will accept the test and will note down the suggestions she had:

- **The contact number is long winded and too long to manually enter** – While this could be introduced, the requirements to get it working would be too demanding on the current resources available. The process would have to involve including document listeners to the contact number boxes to change focus after the length reaches 1.
- **Improvements to grammar** – While it is the easiest to introduce to the system, I will need to make sure that every sentence is correct. The main issue apparently was the inclusion of capital letters in wrong places. Regardless I will see that these changes go through before the code is submitted. While I know this isn't necessarily a direct suggestion I believe that is some manner that the idea of spelling and grammar is addressed at some point on the system before I proceed to hand the software in.
- **Possibility to amend the consultant's personal information like wage etc** – While a small aspect I glossed over on accident I see no reason why this feature could not make it in relatively soon if time allows for it. Overall I think the feature could also allow for a new major window which could allow for more advanced attributes regarding the employee entity of the system.
- **Change password** – While most people think this is an absolute when the system automatically assigns the user a pre-generated one, I will reject this system first because of the potential security risk it holds on the system. While it would prove to be a nice little addition I can potentially see it being used to allow very basic passwords being introduced. As of now the feature will remain out until it could be done properly.
- **Edit documents/ delete** – This has been an idea at the back of my head for the past few months however due the work required to put it in and all the rearranging it would need in the admission panel. It was ultimately left out, however if I had the ability to enrol a 2.0 version of the system this would be definitely a staple of the update.

8.34 Beta Testing

Beta test introduction

For simplicity's sake I have kept all the individual tests together so that the first section of the test revolves around the patient, then the consultant, then the staff, then the management and finally any miscellaneous data. This should allow the tester to get a feel for the system as a whole. Another key point is that while the user will be required to create a new account and a few other major entities, here I want them to get a grasp of using the system like they normally with an already existing back catalogue of data. Because of this I already have supplied them with pregenerated information for tests that don't require them to create an instance of an object.

In terms of feedback, the original aim was to provide the tester the original document provided to testers back in PPROD. As is quickly came apparent to me, the document heavily specified suggestions to the user that would have no need to be asked about on the This then led me to copy the questions that were relevant and then base the rest of the list of instructions that would be issued to them. The questions themselves are fairly basic but at this point the general feedback and testing of the system is the more desirable result rather than the quality of the questions being asked regarding the experience.

The tasks I will get the user to perform will cover all major aspects of the system, while as a patient they will get to do the tasks a user of that entity will certainly perform at least once during their use of the system, that being creating an account and an admission. As a staff account they will proceed in generating an appointment and then attaching legacy documents. For the consultant we will see the updating of admissions and the generation of documents. Finally for the management we will see the user view the action log and then archive a consultant and generate a staff account. Between each section they will enter the feedback into the Google forms document.

8.31A – Beta Testing Document

Welcome, the first thing I want to say is thank you for taking the time to test the system. Now that you are reading this in a couple of minutes the current system will be given to you to find faults and gather opinions regarding it. When you start the testing I will expect you to use the document and the occasional help provided by the panels throughout the system. If you get to the point where you can't find or achieve a goal, please inform me but try to do it by yourself first.

Here I will present to you a list of actions I want you to perform, where the clarity of said guidance will vary to trial how intuitive performing tasks are on the system. After the end of the testing while last time some verbal comments have been made I will only need quantitate details, so to achieve this please will you use the link provided below:

https://docs.google.com/forms/d/e/1FAIpQLScLBa15mcUZYKUeaqpTMcXL_AOyi2QgrKFqPFXmxXAN66yLIO/viewform?usp=sf_link

In order to get a wide coverage of the system I will provide a list of tasks to accomplish, please do not be afraid to explore the system and find faults. While it is unlikely the majority of feedback given will be applied before the end of the system it does allow me to get an overall opinion on user feedback and general opinion of the system.

On starting the system:

- Create a patient account, whilst doing this try to enter any erroneous data
 - Write down the password to the account
 - Write the username to the account
 - Navigate to the admission tab and create an admission
 - Here load the glossary and search for the words "Ombo" and "Test"
 - Request one of these words to be added to the library
 - Logout from the account

At this point stop the test and fill out the first part of the questionnaire

- Log into the account "**CNUR0000001**" by using the password "a"
 - Locate the admission "**AABB0000001**" in the patient "**PABB0000001**"
 - Search for and load the document "**DABB0000003**", *The system will load the document and will freeze for a few seconds this just indicates that it is working*
 - From the document panel find the admission "**AABB0000008**"
 - Create a new document for the admission with a set of notes, here enter whatever text you think is necessary
 - Update the admission with a new diagnosis of "Flu" and then select the Consultant
 - **CTOM0000001**, *this should remove the admission from the account*
 - Logout from the account

At this point stop the test and fill out the section titled "Section 2 The Consultant"

- Log into the account "**SHAR0000002**" by using the password "**a**"
 - Locate the admission "**AABB0000001**" in the patient "**PABB0000001**"
 - Using the folder in the pen drive to select a scanned document, create a legacy document by selecting a file, enter the date of creation from the date provided in the scan and declare the title "Booking"
 - Create an appointment for the 10/10/2020 at 15:30 in room R206 for the same admission
 - Logout from the account

At this point stop the test and fill out the section titled "Section 3 The Staff"

- Log into the account "**Management**" by using the password "**Password**"
 - Generate all the possible actions made by the account "**ENUR0000001**"
 - Archive the consultant account "**CNUR0000010**"
 - Create a new Staff account with the surname "Whitley"
 - Logout from the account

At this point stop the test and fill out the section titled "Section 4 The Management"

End of test

Now the test has concluded please submit the document. Thank you for participating with the system, if you have any further comments about the system like suggestions please talk with me directly.

Beta test results

From the results I have seen a wide range of users test the system, while I wished more people had performed the test, when comparing the values against the old data where possible we can still see large differences. Because of this where possible I will describe the results. But as the distributions of data are pretty obvious not much in terms of analysis should be expected. However overall I do believe that the test went really well, however one thing I did expect that came into fruition was that very little in terms of verbal input was received, regardless I am pleased with the numerical data presented and the few suggestions I did end up receiving.

Section 1 the patient

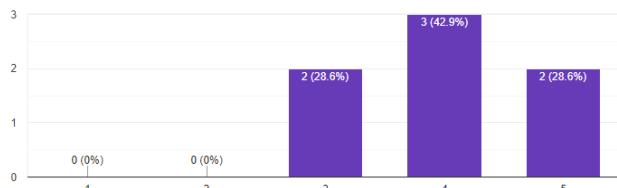
How welcoming is the initial Login screen?

1 2 3 4 5

Unwelcoming Welcoming

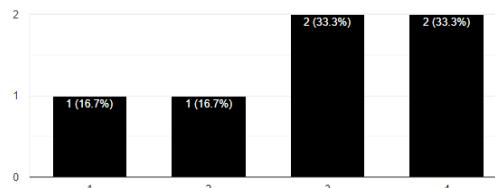
How welcoming is the initial Login screen?

7 responses



How welcoming is the initial start screen

6 responses



For this test I am happy to see a tighter distribution and lower variance between results. As you can see while the largest value has still not reached 5 we can still see that overall the users are more impressed by the new rectified login screen than they were with the old start screen. While a subjective we can still see that the overall outcome is a positive one and likely a worthwhile change to remove the old start panel.

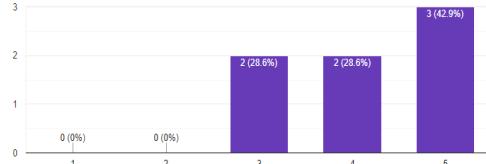
After seeing the chance to create a new patient account, how easy did you find creating an account?

1 2 3 4 5

Hard Easy

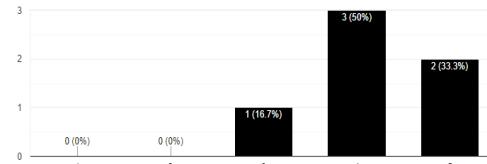
After seeing the chance to create a new patient account, how easy did you find creating an account?

7 responses



After seeing the chance to create a new patient account, how easy did you find creating an account

6 responses



For the test above I am especially pleased to see that the process for creating patient accounts overall saw an increase and as a result satisfaction for the feature should be at an all-time high. Because of this we can see that this test has seen an improvement since the test from PPRODD. In terms of the data distribution we can see a wider split in opinions about the process, despite this I am pleased that the highest result this time was that they found the process to be easy.

How easy would you be able to navigate the system after being initially asked to go to a particular panel? After spending less than five minutes with it.

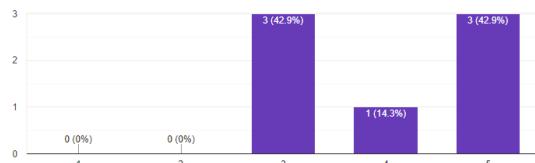
1 2 3 4 5

Would struggle to navigate the system

I instantly found where i wanted to go

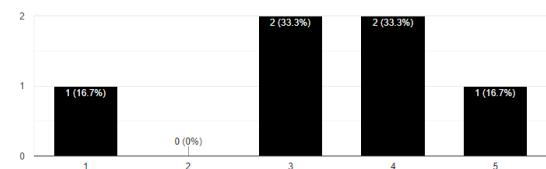
How easy would you be able to navigate the system after being initially asked to go to a particular panel? After spending less than five minutes with it.

7 responses



how easy would you be able to navigate the system after being initially asked to go to a particular panel.

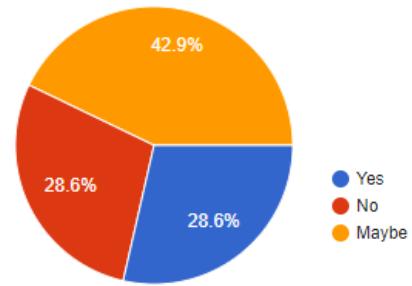
6 responses



For this test we can see a stranger distribution in answers more than the old result I would say. For the new data we can see that around half of users would be partially unsure that they would have been able to perform the process of navigating to a certain panel. However I am going to take the result as a positive note as I will assume that the share of users now think well of it.

After being asked to create an admission did you find the amount of the data required to be not enough?

- Yes
- No
- Maybe

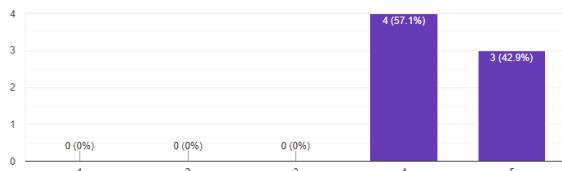


For this test as we can see from the pie chart we see an equal distribution almost for all three possible values, this almost suggests that the majority feel that some extra fields could have actually had been added to the user, assuming that the maybes were given by people too polite to say yes. Despite this the system still managed to provide plenty of graphical fields to help allow visual input to be utilised.

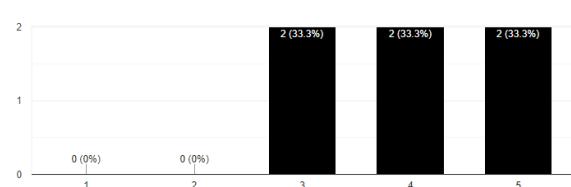
How organised do you think the demographic panel layout is?

1	2	3	4	5	
Too cluttered	<input type="radio"/> Perfect				

How organised do you think the demographic panel layout is?
7 responses



How organised do you think the demographic field layout is?
6 responses



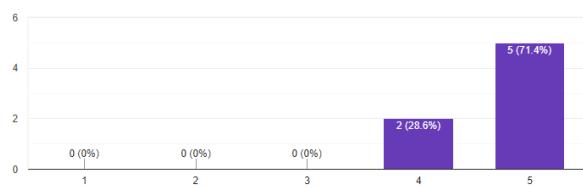
For this test I was happy to see a smaller variance on the items in the array. The screen shots are clearly showing that an improvement has been made to the demographic layout for the feature. Because of this we can imply that the system has improved the layout of the demographic panel. In terms of distribution the result of the data appears that the demographic appears to be near perfect. We can now proceed to the next test result.

Section 2 the consultant

How do you find the ability to search documents?

1	2	3	4	5	
Difficult	<input type="radio"/> Easy				

How do you find the ability to search documents?
7 responses

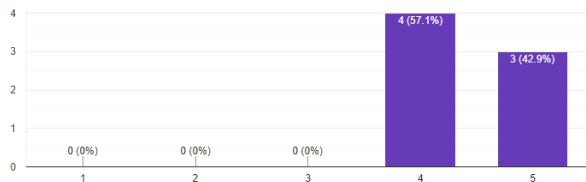


Here from the evidence it appears that the overall the searching features were responded to in a really positive manner, because of this we can accept this as proof and assume no work needs to be done on them. From the screen shots we can see a vast majority of the users really like the searching capabilities. Because of this I feel that no changes need to occur to the searching process of the system as we can move on.

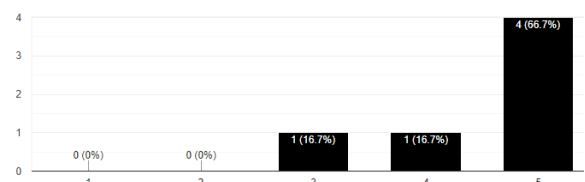
How clear is the layout of the admission homepage?



How clear is the layout of the admission homepage?
7 responses



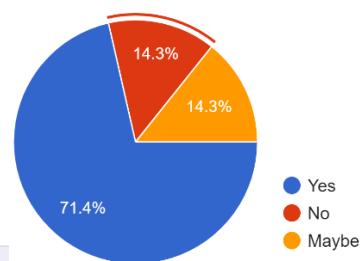
How clear is the layout of the admission homepage
6 responses



The largest result to see from this test is that we have seen a drastic increase in opinions on the admission homepage. While not large enough to completely change the shape of the list, it was enough to clearly spot the dip in views. While this could be seen in a bad light I believe that the user has just seen the more fuller admission panels of the system where they have a ridiculous 39 admissions, I will take this into consideration there is not too much that could be done now to change their opinions.

Do you prefer the change that only the patient can amend the symptoms they are experiencing?

- Yes
- No
- Maybe



For this test as you can see, the vast majority once again agree with the idea that the symptoms on the system should only be able to be amended by the patient and no one else. I think this test however does draw a lot from the native protectiveness people get about their data. While I can see the feeling that some people like help with entering values and checking them I ultimately feel that this is the best course of action to just leave it as be.

Section 3 The Staff

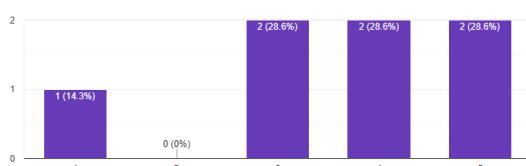
After being asked to create a legacy document and seeing what fields are available to help the changeover process, how happy would you be to see a reduction in scan quality of the document in order to obtain faster load times for the scan every time it was accessed?

1 2 3 4 5

Not happy Happy

After being asked to create a legacy document and seeing what fields are available to help the changeover process, how happy would you be to see a reduction in scan quality of the document in order to obtain faster load times for the scan every time it was accessed?

7 responses



While we have no other value to compare this to on its own the table does show some interesting information. For instance despite having almost an equally positive distribution in the general response that they were happy to see a decline in quality, the system also managed to obtain a view that was slightly negative indicating that they preferred the higher resolutions over the performance. Despite this, as the system is centred around performance we don't need to reach a compromise.

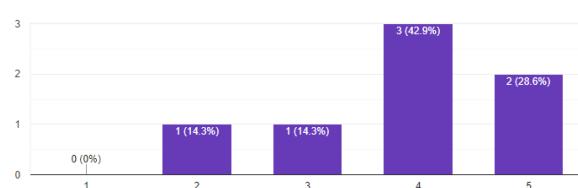
After being given the chance to create a booking for an admission, how comfortable are you that enough information was provided to get the user to the appointment, once all the details where provided?

1 2 3 4 5

No Happy

After being given the chance to create a booking for an admission, how comfortable are you that enough information was provided to get the user to the appointment, once all the details where provided?

7 responses

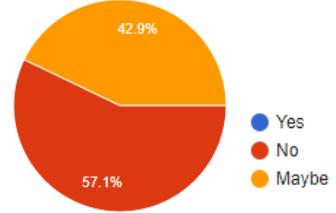


Finally for the last test for the staff account here we can see that the data again has this “bell shaped” distribution this time it also appears that we have a wider range of results this time around. Regardless I am happy to see that others mainly believe the booking would provide enough information to the user. Besides this I don’t think much else can be said other than it appears that the majority are happy with the information provided rather than not being.

Section 4 The Management

When seeing the system archive an account do you believe that a function like that needed a graphical user interface ?

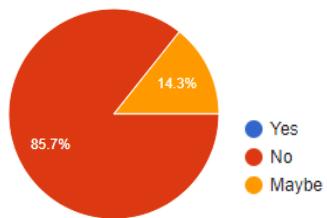
- Yes
- No
- Maybe



At this point when I looked at the distribution it appears that the tests thought that while there was no absolute need to generate a graphical interface for the user, there was a potential to, despite having some strong feelings towards this I would land on the 57% of the tests and say that they wouldn't. As the majority just think there is no need to use a Gui I am happy to proceed.

Some people believe that a command line interface diminishes the functionality that its processes utilise. Do you think that the same idea applies to the management part of the system?

- Yes
- No
- Maybe



Coming from the last test I am much more pleased with the distribution of results this time around. While this is nothing more than a brief thought I had concerning the command line interface it does show that the majority of the user base would still regard the tasks it performs as complex despite being in the command prompt. Because of this I have decided to leave this issue where it stands.

Section 5 Miscellaneous

A key point made from the prototype was that the system was too grey scale, after some blue has been introduced to help highlight the system, and a few dark grey colours have been made to help contrast the lighter colours how relevant do you think the statement still stands?

1 2 3 4 5

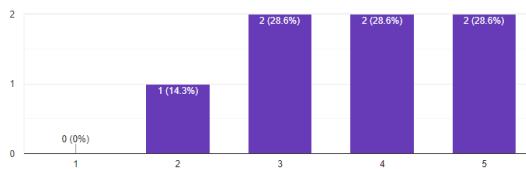
I would agree the comment



i would disagree with the comment

A key point made from the prototype was that the system was too grey scale, after some blue has been introduced to help highlight the system, and a few dark grey colours have been made to help contrast the lighter colours how relevant do you think the statement still stands?

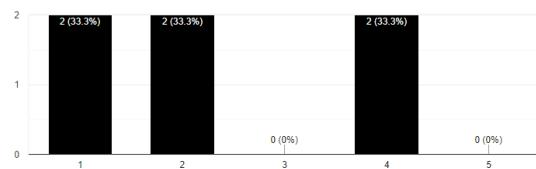
7 responses



The last section (Miscellaneous)

How well do you like the colour scheme

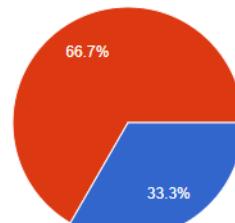
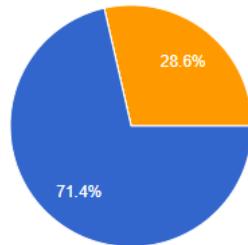
6 responses



While not most important in beta testing the colour scheme does show me an early representation to how the user base feels towards the more general “look and feel” of the system. This does show that compared to last time where thoughts were pretty mixed that here while some do show concerns for the colour scheme the general consensus is pretty positive. Because of this I will leave the feature where it is and move on.

Was text easy to read and see

- Yes
- No
- Maybe

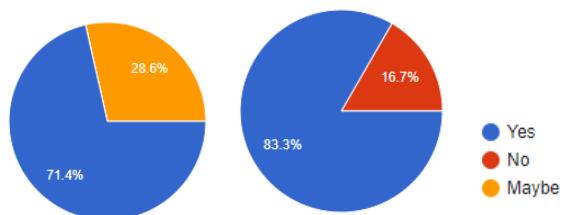


- Yes
- No
- Maybe

For this test I was astounded to see the complete change in opinion testers had towards the ability to view the text. Looking from this the bolding of text has really made the opinions change, while we still some people on the fence with the 26% maybe that is still an excellent value to be at, compared to the 66% no from the prototype. With the distributions being so high I don't feel like we need to change how things are at the moment.

Did buttons explain their purpose from the text labels?

- Yes
- No
- Maybe



While looking at the positive side of this result it still appears that the majority still feel that buttons displayed their purpose which is a good thing, however we can see not as much this time said yes, this could be down to preference of the user of the fact I got them to perform different functions this time round. Regardless I will regard the test as a success and consequently will refrain from further actions.

Beta testing suggestions

While the main of the test was to retrieve quantitative data regarding the system there were a couple of things that the testers suggested to me afterwards. Here I will go through them one by one and comment on their ideas and determine whether or not they would be worthy to be used or rolled over to the next version of the system,

- **Mass delete notifications** – I really like this idea, when it came after implementing the notification system afterwards when I wanted to just see the latest ones I had to frequently scroll back to the top of the list. In hindsight this would have been a great idea to implement and am quite surprised myself to see that I didn't think of something like this. While incrementally deleting them eventually gets the job done this could instantly make my life easier, also instead of actually updating them after closing the system I could actually just clear them all at once as they all want to get removed so it wouldn't be as a pain for the file writer and reader.
- **Don't know option in blood types** – This on reflection makes a lot of sense, while most people know that blood type is life threatening if the wrong type is given, most people actually don't know it, including me. This option makes plenty of sense I will look into it soon, as I believe it could be a quick implementation onto the system. Overall this should help with the aiding of users who don't know what to do as much or who fail to have relevant data required for the system.
- **Multipage documents** – Now this is already an aspect I have considered quite frequently, I think this would be the perfect type of feature to introduce into version 2.0, while not too big it certainly would allow for more freedom to enter data, and also as a text entry system it also is like a must. This feature nearly did make it into the system, to the point I had Attributes ready for the instance, but it was far too early in development and I had a lot of work to get on with at that point. This will definitely be an aspect I will come back to.
- **Multiple sorting types** – For this aspect this is quite different compared to the rest, the main issue I have with implementing a sort for different aspects is that the current quick sorts utilise the patient instances location in the array rather than the instance itself, because of how the system works it would impossible for this to change without pulling out the majority of the graphical work of the system, while I do like the idea of having different sorting types it would require a complete overhaul of the system

- **View all staff and consultants on the system** – While I don't entirely understand what they mean in this the idea I believe is that like other students' systems in my class the user management entity would be able to see all the employees together in one location. While it wouldn't be out of the question for me to implement something like this, there just seems that it would hold little to no purpose other than for just looking. If this was to be introduced at some point it would have to be a 2.0 feature.
- **Highlight Patients that need updating** – Because this sounded interesting I asked the tester what they meant by this, the main premise was that like the admission tab for the patient admissions on the staff homepage, highlighting what admissions needed adding to, the feature would appear on the staff/consultant patient cards with a sort of icon indicating to the user that this patient needs information entering. This sounds really useful as it would solve a redundancy the tab feature faced being that it would be unlikely that the staff would even enter that patients account anyway. While a little too late now to see it through this will be a 2.0 feature for sure.
- **Share patients similar to how consultants can transfer admissions** – While I felt that I needed to include the other feature as circumstances change, in some way the feature is already in, and means that already the backbone to the feature is already working and would just require some slight changes. However I feel with a feature like this it is a tossup as the feature doesn't seem necessary at the moment to have in straight away and would only be needed to distribute the patients across the system better. Because of this I think I will leave it for the time being and move on.
- **Password recovery** – While related to the suggestion made by Sue in the last test section, I feel that this holds up better than her' simply because it is not a security risk to have on the system. The only issue that poses to this features inclusion would be its verification, like what I said originally about the idea earlier on in the project the proof of concept is there to see it here, however the technical capabilities so far isn't enough to be focusing time and resources into a feature like this.
- **Archive** – While I did see a feature like this in Alex's system when testing for him I don't like the idea of having to deal with another file where user information is stored, I had something similar to this in my prototype and it caused far too much grievance to maintain and ensure continuity between all instances and files. Because of this I am not going to include the feature at any point unfortunately.
- **Time sheets and wages.** – For this feature I believe it to be another one of those 2.0 features that would be used to advertise the update if it was being commercially distributed. The feature would seem to promise further functionality to management, who would deal with all the resources available to the system, while more smaller features could be given to the employees of the system. I really like this idea now that the system has achieved its main purpose we can start exploring these more separated ideas in more detail.

8.4 Test Results Summary



Obj #	Test #	Objective Title	Phase1 ID	Phase2 ID	Phase3 ID	Phase5 ID	Phase6 ID
3.	1	Generating new patients	1. 1 ✓	1. 2 ✓	1. 3 ✓	1. 5 ✓	1. 6 ✓
1.	2	Input/select symptoms into expert system	2. 1 ✓	2. 2 ✓	2. 3 ✓	2. 5 ✓	2. 6 ✓
4.	3	Generating a new admission	3. 1 ✓	3. 2 Ⓢ	3. 3 Ⓢ	3. 5 ✓	3. 6 ✓
8.	4	Add employees	4. 1 ✓	4. 2 ✓	4. 3 ✓	4. 5 ✓	4. 6 ✓
2.	5	Determine suggestion	5. 1 Ⓢ	5. 2 Ⓢ	5. 3 Ⓢ	5. 5 Ⓢ	5. 6 Ⓢ
6.	6	Login users	6. 1 ✓	6. 2 ✓	6. 3 ✓	6. 5 ✓	6. 6 ✓
7.	7	Display menu options	7. 1 Ⓢ	7. 2 Ⓢ	7. 3 Ⓢ	7. 5 Ⓢ	7. 6 Ⓢ
5.	8	Booking a new appointment	8. 1 ✓	8. 2 ✓	8. 3 ✓	8. 5 ✓	8. 6 ✓
9.	9	Archive employees	9. 1 ✓	9. 2 ✓	9. 3 Ⓢ	9. 5 ✓	9. 6 ✓
10.	10	Sort for employees	10. 1 ✓	10. 2 Ⓢ	10. 3 Ⓢ	10. 5 Ⓢ	10. 6 Ⓢ
11.	11	Search for employees	11. 1 ✓	11. 2 ✓	11. 3 Ⓢ	11. 5 Ⓢ	11. 6 Ⓢ
12.	12	View an employee's transaction log	12. 1 ✓	12. 2 ✓	12. 3 Ⓢ	12. 5 ✓	12. 6 ✓
13.	13A	Read transaction log from file	13. A1 ✓	13. A2 ✓	13. A3 Ⓢ	13. A5 Ⓢ	13. A6 Ⓢ
13.	13B	Write transaction log to file	13. B1 ✓	13. B2 Ⓢ	13. B3 Ⓢ	13. B5 Ⓢ	13. B6 Ⓢ
14.	14	Staff can sort for patients	14. 1 ✓	14. 2 Ⓢ	14. 3 Ⓢ	14. 5 ✓	14. 6 Ⓢ
15.	15	Staff can search for a patient	15. 1 ✓	15. 2 ✓	15. 3 Ⓢ	15. 5 ✓	15. 6 ✓
16.	16	View patient details	16. 1 ✓	16. 2 Ⓢ	16. 3 ✓	16. 5 ✓	16. 6 ✓
17.	17	Add archived notes from old system	17. 1 ✓	17. 2 ✓	17. 3 ✓	17. 5 ✓	17. 6 ✓
18.	18	Amend bookings	18. 1 ✓	18. 2 ✓	18. 3 ✓	18. 5 Ⓢ	18. 6 Ⓢ
19.	19	View patient bookings	19. 1 ✓	19. 2 Ⓢ	19. 3 ✓	19. 5 ✓	19. 6 ✓
20.	20	View patient admissions	20. 1 ✓	20. 2 Ⓢ	20. 3 ✓	20. 5 ✓	20. 6 ✓
21.	21	Have patients view their Admissions and Demographic information	21. 1 ✓	21. 2 Ⓢ	21. 3 ✓	21. 5 ✓	21. 6 ✓

22.	22	Amend demographic information	22. 1 ✓	22. 2 ✓	22. 3 Ⓢ	22. 5 ✓	22. 6 ✓
23.	23	Validate information	23. 1 ✓	23. 2 ✓	23. 3 ✓	23. 5 ✓	23. 6 ✓
24.	24	View bookings in entirety	24. 1 ✓	24. 2 Ⓢ	24. 3 ✓	24. 5 ✓	24. 6 ✓
25.	25	Update bookings	25. 1 ✓	25. 2 ✓	25. 3 Ⓢ	25. 5 ✓	25. 6 ✓
26.	26A	Sort documents	26. A1 ✓	26. A2 Ⓢ	26. A3 ✓	26. A5 ✓	26. A6 ✓
26.	26B	Search documents	26. B1 ✓	26. B2 ✓	26. B3 Ⓢ	26. B5 ✓	26. B6 ✓
27.	27	Print documents	27. 1 Ⓢ	27. 2 Ⓢ	27. 3 Ⓢ	27. 5 Ⓢ	27. 6 Ⓢ
28.	28	Search for patients	28. 1 ✓	28. 2 ✓	28. 3 Ⓢ	28. 5 ✓	28. 6 Ⓢ
29.	29	Consultant can view patient files	29. 1 ✓	29. 2 Ⓢ	29. 3 ✓	29. 5 ✓	29. 6 ✓
30.	30	View patient Demographic information	30. 1 ✓	30. 2 Ⓢ	30. 3 ✓	30. 5 ✓	30. 6 ✓
31.	31	Sort admission	31. 1 Ⓢ	31. 2 Ⓢ	31. 3 Ⓢ	31. 5 Ⓢ	31. 6 Ⓢ
32.	32	Edit Prescriptions	32. 1 Ⓢ	32. 2 Ⓢ	32. 3 Ⓢ	32. 5 Ⓢ	32. 6 Ⓢ
33.	33	Add Admission information	33. 1 ✓	33. 2 ✓	33. 3 ✓	33. 5 ✓	33. 6 Ⓢ
34.	34	Edit Admission information	34. 1 ✓	34. 2 ✓	34. 3 ✓	34. 5 ✓	34. 6 Ⓢ
35.	35	Add notes	35. 1 ✓	35. 2 ✓	35. 3 ✓	35. 5 ✓	35. 6 ✓
36.	36	Encrypting data before being written to file	36. 1 ✓	36. 2 Ⓢ	36. 3 Ⓢ	36. 5 Ⓢ	36. 6 Ⓢ
37.	37	Decrypting that has been read from file	37. 1 ✓	37. 2 Ⓢ	37. 3 Ⓢ	37. 5 Ⓢ	37. 6 Ⓢ
38.	38	Using the Jargon library	38. 1 ✓	38. 2 ✓	38. 3 Ⓢ	38. 5 ✓	38. 6 ✓
39.	39	Adding to the Jargon library	39. 1 ✓	39. 2 ✓	39. 3 Ⓢ	39. 5 ✓	39. 6 Ⓢ
40.	40	Search through Bookings	40. 1 ✓	40. 2 Ⓢ	40. 3 Ⓢ	40. 5 Ⓢ	40. 6 Ⓢ
41.	41	Search through demographic information	41. 1 Ⓢ	41. 2 Ⓢ	41. 3 Ⓢ	41. 5 Ⓢ	41. 6 Ⓢ
42.	42	Add/Edit employee demographic information	42. 1 ✓	42. 2 Ⓢ	42. 3 Ⓢ	42. 5 ✓	42. 6 ✓
43.	43	Logout Users	43. 1 ✓	43. 2 Ⓢ	43. 3 ✓	43. 5 ✓	43. 6 ✓
44.	44	Remember Me	44. 1 Ⓢ	44. 2 Ⓢ	44. 3 Ⓢ	44. 5 Ⓢ	44. 6 Ⓢ
45.	45	Cancel bookings	45. 1 ✓	45. 2 Ⓢ	45. 3 ✓	45. 5 ✓	45. 6 ✓

46.	46	Determining a consultant for an admission	46. 1 ✓	46. 2 ⚡	46. 3 ✓	46. 5 ✓	46. 6 ⚡
47.	47	Read Patient information	47. 1 ✓	47. 2 ⚡	47. 3 ⚡	47. 5 ⚡	47. 6 ⚡
48.	48	Read Staff information	48. 1 ✓	48. 2 ⚡	48. 3 ⚡	48. 5 ⚡	48. 6 ⚡
49.	49	Read consultant Information	49. 1 ✓	49. 2 ⚡	49. 3 ⚡	49. 5 ✓	49. 6 ✓
50.	50	Read management information	50. 1 ⚡	50. 2 ⚡	50. 3 ⚡	50. 5 ⚡	50. 6 ⚡
51.	51	Searching definition	51. 1 ✓	51. 2 ✓	51. 3 ✓	51. 5 ✓	51. 6 ✓
52.	52	Sorting definitions	52. 1 ✓	52. 2 ⚡	52. 3 ✓	52. 5 ⚡	52. 6 ⚡
53.	53	Primary key generation	53. 1 ✓	53. 2 ⚡	53. 3 ⚡	53. 5 ⚡	53. 6 ⚡



8.5 Testing Conclusion

Finally we have finished for testing of the system, at this point I am confident to see that every objective currently implemented on the system is working to a quality I feel acceptable to distribute. While there will be certainly many bugs and errors that have come up I believe that a large quantity have been documented and reviewed. Despite this as all systems contain bugs I am less worried about them than before so I am happy to get to hand in the software.

If I were to go back and change any possible strategies I believe an immediate change would have been perform less checks in alpha testing and focus more on the functionality of the system as a whole. However as this stage of testing normally takes the majority by the look at other students I am not worried in the slightest about it. To be honest it reassures me that I know that enough has been put in place to ensure that the system does not throw any unexpected errors or results.

Another key point I have taken with me from testing is that quite often in the system if an error was found it wasn't due to the more advanced or complex features performing a single task but rather the general methods like creating a primary key which is used commonly throughout. This appears to be the case in most situations that failed on the system. As a result it has made me question that if more testing should have been conducted earlier on in development to ensure that these bugs won't appear 2 months down the line when I have forgotten about the method that causes them.

Overall while I performed a few less tests than anticipated, that being the omission of integrated testing, I feel that enough proof is here on the system to prove core functionality, validation and navigation. The biggest struggle this document has posed on me is workload, due to my slight carelessness during the original plan I believe that too much work was set to be done in too short of a time frame, however as this is almost common in industry I have to do what is necessary and exclude any others. However overall I am confident with how each testing phase was conducted, I believe that every corner of the system was covered in great detail as during my time testing as you can see by the red ticks from the prior table a fair amount of bugs where found and then ultimately fixed.