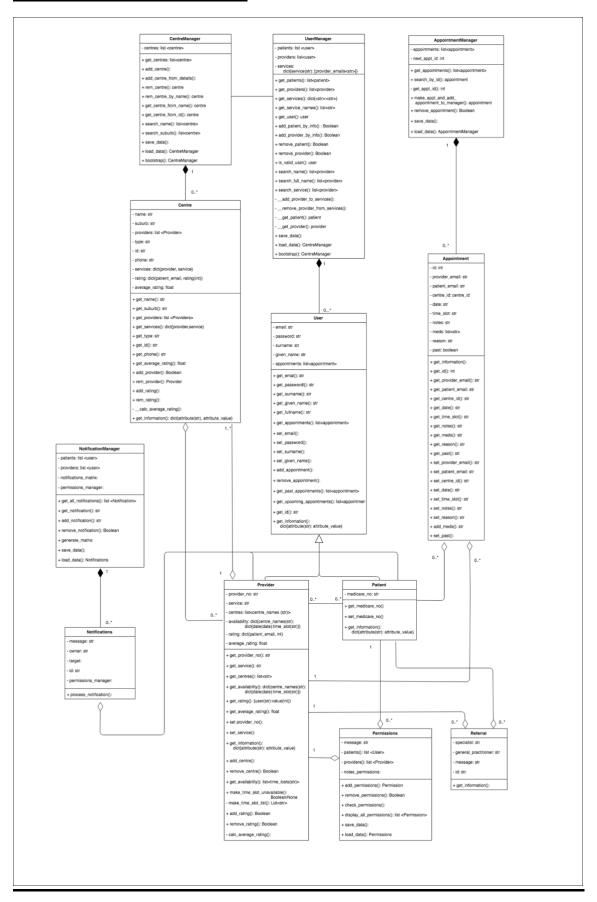
Health Appointment Management System – Report COMP1531 – S2 2018

Team Name: W18Bros

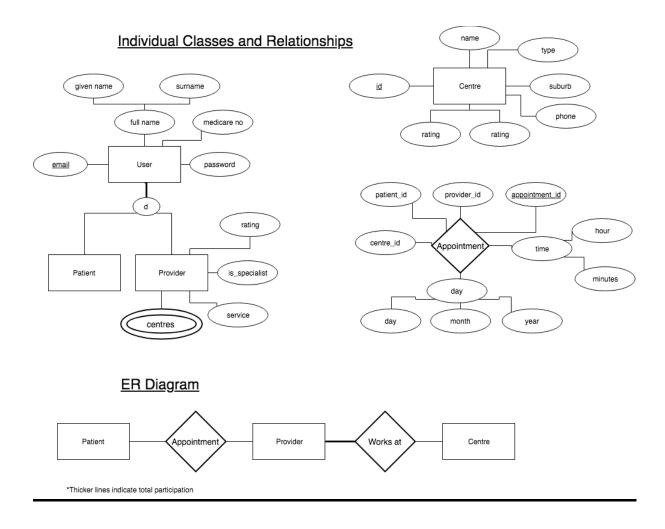
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UML Class Diagram



Entity-Relationship Diagram



Logbook

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Meeting 22/8

Present: Jon, Aran, Martin, Stephen

Items Discussed:

- Generate Epic Stories
 - o Decided on 4-5 epic stories
 - o Breaking down into user stories to be divided
- Logbook
 - o To be done on google docs, minutes uploaded to git
- Everyone allocated 1-2 epic stories
- Classes
 - o Some can be done before Use Cases/User story are finalised
 - o Jon and Martin to develop basic classes
 - o Everyones got allocated use cases to work ons

Next Meetings: Wednesday 29/08 – 3pm

- Finalise User Stories
- Elaborate on UML diagram
- Begin implantation planning

Meeting 29/8

Present: Jon, Martin, Stephen, Nat, Aran

Items:

- 1. User Stories
 - o Need refining everyone to critique others to get feedback
 - o Need to be atomic, if there's an option to split it, then split it
 - Specific acceptance criteria, need to be able to complete a module, and once it ticks of the AC then it is done, some are really vague
 - o Distinguish between AC and new features
 - Features that aren't necessarily in the brief explicitly...

Added new user stories regarding login details, viewing profiles Everyone to go through and add comments to other user stories Add acceptance criteria for all Everyone to complete by Thursday/Friday

2. Classes

Start doing class diagrams

At least an early concept, have it done early to get feedback

3. Implementation

When do we want to start implementation (next week?)

Division of work...

Other notes

Repo organisation - classes in folders etc...?

Redefine User Points system? Make a bit smaller

Style convention - be consistent across everyones code

module_name, package_name, ClassName, method_name, ExceptionName, function_name, GLOBAL_CONSTANT_NAME, global_var_name, instance_var_name, function_parameter_name, local_var_name (for example.... From stackexchange/PEP8)

5. Deadlines

User stories - Sunday Class diagram - Wk 9?? - to be done well before First release - Wk 9

Feedback 29/8

Feedback on user stories from laboratory session

- Need to be more specific with benefits. Some of them just restate a function, need to be a genuine benefit to the customer (almost like a selling point)
- Need to be a lot more specific with assessment criteria. Go into as much detail as possible
- Condense epic stories. Go from 8-> 3ish
- We had some features that might be nice, but aren't in the spec, so lets not create extra work for ourselves
- Group to go back and adjust user stories, condense into new epic stories
- Deadline by Friday to be reviewed by Saturday and submitted on Sunday

Meeting 5/9

Present: Jon, Aran, Martin, Stephen, Nat

- 1. CRC Cards
 - o Basic drafting of CRC cards
 - Need to make sure class methods are for its own attributes
 - Discussed where to put searches -> within "manager" classes
 - Appointment Manager universal list of appointments, indexed by ID
- 2. Class Diagram
 - o Translation of CRC cards Basic draft done by Jon/Martin
 - Need to finalise with CRC cards
 - Need to clear a few things up with tutors getter/setter methods in class diagram
- 3. Implementation Plan
 - Need to find a way to get consistency across functions will do this by specifying method outputs on UML
 - Options split classes up per person, have to wait for functions to finish. Allow concurrent access to classes, add functions we need for
- User Stories due for iteration 1
- 3.1 Login Successfully (2 pts) Responsible: Aran

Classes - User, User Manager, Patient, Provider

1.1 - Search for Centre (4 pts) - Responsible: Jon

Classes: Centre, CentreManager, SystemManager

1.2 - Search for Service (2 pts)

Classes: Provider, UserManager, SystemManager

1.3 - Search for providers (2 pts)

Classes: Provider, UserManager, SystemManager

1.4 - View provider profile (4 pts) - Responsible: Martin

Classes: Provider, SystemManager

1.5 - View center profile (4 pts)

Classes: Centre, SystemManager

1.6 - Book an appointment (4 pts) - Responsible: Nat

Classes: Patient, Provider, Centre, AppointmentManager

Responsible: Nat

2.2 - Patient view current appointments (4 pts) – Responsible: Stephen

Classes: Patient, AppointmentManager

2.6 - Provider view current appointments (4 pts)

Classes: Provider, AppointmentManager

5. Classes

User, user manager = Aran

Patient, provider = Nat

Centre, centre manager = Jon

Profiles = Martin, Appointments = Stephen

Meeting 10/09

Present: Aran, Nat, Jon

- 1. Finalise classes allocation
 - Completed skeleton for most classes, just need to write appointment class
 - Jon to do?? Stephen working on it already
- 2. Complete routes/templates
 - This will probably be the hard part to get used to
 - Python functions shouldn't take long, need to work on how to display to html
- 3. Unit tests
 - Everyone to do testing documents on their own branch
 - Using pytest framework
- 4. Directory management
 - How we want to organise files
 - Directories for model, routes, templates, static, tests etc...
 - Anything
 - Discuss in tute about how to implement

Discussion Points 11/09

Discussion Topics from outside of meeting

Issues/Roadblocks

- Centre profile Jinja error caused by a missing 'from <h3>Rating: {{ content['rating'] }}</h3> in the centre_profile.html template
- Availability attribute in provide is no longer dict{centre_name(str): hours(list<str>}, for it has been changed to {centre_id(int):{date(date):time_slots(list<str>)}}. This alternative means a booking can be made on a specified date
- Additionally, provider available time slots for a specific date is only added to availability after a booking is submitted to avoid making available slots for all dates in future.

Changes made/to make

- Persistence mechanism is through pickle. If no pickle file exists, take info from csv, using the bootstrap function from user manager and centre manager.
- Centre class to store provider objects, not just id, as it needs to access attributes
- Search implementation: Prefix match for all text searches, service search by drop down menu. Prefix match returns match is (A is in B) and A[0] == B[0].
 - Name search works for first name, last name or both

•

Meeting 12/09

Progress Report (Wednesday before Iteration 1):

User Story	Progress / comments	Approx User
		Points
3.1 – Login Successful	75% - framework done, need to	1.5/2pts
	test	
1.1 – Search for centre	60% - functions complete +	3/4pts
1.2 – Search for service	tested for all searches. Need to	1/2nts
1.2 – Search for service	do front end	1/2pts
1.3 – Search for provider		1/2pts
1.6 – Book an appointment	20% - need to finalise	1/4 pts
	appointment class	
1.4 – View provider profile	80% - Flask framework mostly	3/4 pts
	done + HTML page	
1.5 – View centre profile	80% - Flask framework mostly	3/4 pts
·	done + HTML page	
2.2 – View current appointments (patient)	20% - Need to finish	1/4 pts
	appointment class and	
2.6 – View current appointments (provider)	patient/provider profile	1/4 pts

Other comments:

- Most people tracking well, should have app running and ready for testing by Friday morning
- Nat's away over the weekend (from Thursday) rest of use to pick up user stories

Discussion Points 12/09 – 16/09

Discussion points outside of meeting, about issues encountered during the "cram weekend" before Iteration 1 deadline

Issues/Roadblocks

- Centre/Provider profiles Issues with Jinja passing out direct classes.
 - Solution: Pass out string with centre_id/prov_email and use lookup function to return object
- Get_center_profile functions in system() use vars() method, but this maintains a reference, so deleting a field deletes it for the whole object
 - Solution: get_information() function in provider/centre/patient classes returns dictionary of relevant info to be displayed on profile for ease of use in Jinja
- CurrentUser login isn't registering user so current_user just returns AnonymousUser
 - Solution: need to add @login_required decorator for all routes
- Need to implement "Add rating" feature as part of view profile user story
 - Jon to implement
 - Just as a form in centre/provider profile
- Persistence Issues Outstanding Still

Currently following lecture example of implementing pickle – e.g. run.py saves data after the app exits, and server.py loads data when the app starts. When the program exits, the versions of user_manager/centre_manager that run.py tries to save are un-updated so none of the new data is saved. Monitoring the vars during the app shows them being updated correctly, but as soon as CTRL+C is pressed, the vars revert back to zero. It appears that run.py takes a copy at the start and maintains that copy without getting updated values

- Temporary Solution Instead of saving data at the end of the app, save data after any update is made to user/centre managers (i.e. add rating or add appointment).
 Inefficient but it'll do for now until we get clarification
- Note: The example code in the lectures has the same problem

Changes made/to make

- SystemManager removed as it was redundant. System.py still has helper functions such as function that links centres -> providers as both objects need to be intialised before this can be done
- Although appointment objects are stored in patient/providers now, appointment manager is kept as a global way of saving appointments
- Jon to cover view appointments, Aran to finalise booking with Stephen, Martin to finish profiles
- Search changed from separate URL to integrated search bar in nav bar courtesy of martin

Iteration 1 Progress Check: 17/09

User Story	Progress / comments	Approx User
		Points
3.1 – Login Successful	100% - completed, tested,	2/2pts
	added logout + error message	
1.1 – Search for centre	100% - functions complete +	4/4pts
1.2 – Search for service	tested for all searches. Front end displays results. Integrated	2/2pts
1.2 Coards for provider	with nav bar	2/2nts
1.3 – Search for provider	with hav bar	2/2pts
1.6 – Book an appointment	100% - appointment class	4/4 pts
	finished, time availability	
	updates, and adds to	
	appointment list	
1.4 – View provider profile	100% - Flask framework mostly	4/4 pts
	done + HTML page. Web pages	
	show basic information for	
1.5 – View centre profile	providers and link to book, and	4/4 pts
	rating option.	
2.2 – View current appointments (patient)	100%: List of appointments	4/4 pts
	shows for both parties when	
2.6 – View current appointments (provider)	appointment made. Links to	4/4 pts
2.0 View current appointments (provider)	centre/provider/patient all	1 / 1 pt3
	available from respective lists	
Additional User Stories		
2.4 – Give Rating	100% - implanted to finish	2/2 pts
Ü	profile pages	

Additional Comment/Notes for Iteration 2:

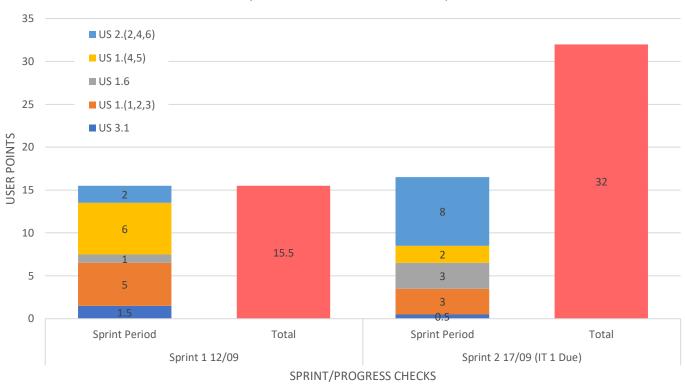
- Functionality completed for all required user stories. Still need to go back to improve error handling for system (not US specific as such).
- Tidy up webpage currently no details were given about availability so could not test with different time availabilities
- Past appointments should be easy implementation as we just monitor the 'past' Boolean
- May need to reassess User points for future iteration, not sure accurate our first guesses were

Changes for Iteration 2:

- Classes like appointment have a lot of getters/setters. Go through code and tidy up/ remove in not necessary
- Sort all python files into model/classes directory to tidy up repo. This wasn't done this iteration as it was still a manageable amount of files, and there would have been inconsistencies between file names between branches. Will do global change to master and have everyone merge to respective branches so all branches have same structure.

Velocity Chart: Iteration 1

Velocity Chart - Iteration 1 Checkpoint



Meeting 3/10

Present: Jon, Nat, Martin

Determined Additional Tasks to do

- Error Handling
 - Check invalid inputs
 - Check multiple bookings for same timeslot
 - o Providers can book appointments, but not with themselves
 - Flexible searches (already implemented)
- Need to screen who can see patient history and past appointments
- Specialist Bonus
 - o GO can provide referral to see a specialist
 - o Patient can only book appointment with specialisit if they have a referral
- From Iteration 1
 - o Past appointments for patient and provider
 - o Update Profile
 - Record/View medication and notes for individual appoints
- Tasks
 - o Jon Past appointments, dashboard screening
 - O Nat Access appointment page, notes and medication
 - Martin patient history
 - o Aran Booking related errors and features
- Error Handling
 - Tossing up to have everyone have a go at it or to have one person go through a consistency implement it.
 - For now, will all implement on our own features until we decide on a good method to implement throughout the app

User Stories Iteration 2 Progress 7/10

User Story	Progress / comments	Approx User Points
2.1 – View past appointments (patient)	Framework was done, completed, working on HTML tabs	4/5 pts
2.3 – Update profile	100% implemented. Users can change name, last name and medicare number	2/2 pts
2.5 – View past appointments (provider)	100% - Same functionality as US2.1. Practically done	4/5pts
4.1 – Access patient history	30% - Can display patient history, need to work out permission and notification implementation	2/6pts
4.2 – Add notes and medication	60% - Appointment page set up, just need to add note/med editing forms	1/2pts
4.3 – Give referrals for specialist	100% - appointment class finished, time availability updates, and adds to appointment list	4/4 pts
1.7 – Book appointment with specialist	10 % - Created referral class, haven't worked on functionality yet	0.5/4 pts
3.2 – Successful Logout	Implemented back in Iteration 1	1/1 pts
Acceptance Criteria Changes		
1.6 – Book appointments	Added error checking . Now validates date inputs and providers booking with each other (additional 1 UP)	1/1 pts
2.1/2.2/2.5/2.7 – Appointment history	Need to implement who can access what appointments (i.e. identity errors)	0/1 pts

Meeting 7/10

Progress Check

Error Handling

- Will use flask error.handler function to deal with errors
- When errors are raised, redirects to custom error pages
- Errors to checl
 - Identity error, wrong person accessing page
 - 404: Wrong url
 - Booking error invalid date, provider etc...
 - ProviderError provider booking with themselves
- Patient History
 - More complicated than expected
 - Have to implement notification and permission system
 - Once patient has a booking, they have to give the provider permission to access their history
 - Martin working on it
- Aran: Added all booking errors and error checks otherwise
- Nat: Partially started adding appointment notes/meds
- Jon: Completed update profile
 - o Decided to not allow user to change their email/pwd
 - Will finish of appointment notes and meds
 - Will implement specialist if has time

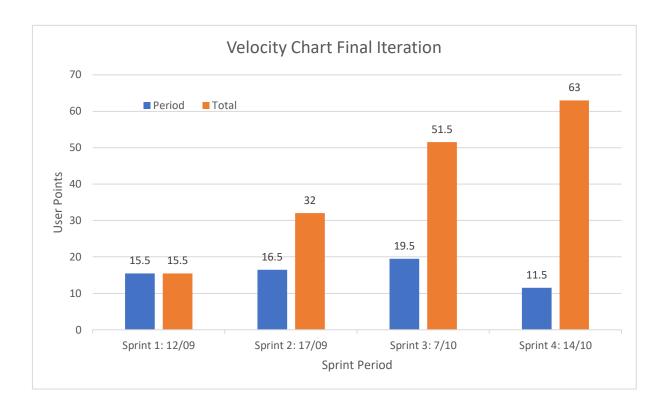
Discussion Points 7-13/10

- Notification system proving complicated.
 - Having issues with pickling because of the 2D matrix being stored (we think)
- Most error handling complete
- Appointments not persistent
 - The appt_id class attribute was resetting to one on reset, because it wasn't being save
 - Going to store appt_id in appointment_manager to resolve this
 - Need to restructure some classes for it
- Specialist bonus task: Jon started
 - Create new referral class, just include "specialist" flag in provider class
 - o Need to implement extra booking check for referrals
 - Can only edit on past appointments
- Other booking errors occurring if *.dat files don't match up
 - Need to delete and restart app to
- Having issues with CSS Tabs, will just use HTML buttons instead

Discussion Points 14/10

• EVERYTHING DONE AND WORKING!!! That is all

Velocity Chart: Final Iteration



Final Meeting / Reflection 17/10

- Solid work all round from everyone, presentation in tute
- Split talking into provider and patient functionality, Stephen and Nat to man the PC
- That's about it
- Things we could've done better....?
 - Code Reviewing user of pull requests and code reviewing to ensure we were programming consistently. There were times someones implementation wasn't easy to follow or there was a simpler solution, but it was too close to the deadline to change
 - o Could have made it look prettier didn't really have time to ad CSS though

User Stories

Key:

Priority: 1 = most important \rightarrow 5 = least important

Story Points: 1 story point = 2.5hrs

Assumptions:

- Patients can only book a finite amount of time in advance (dependent on implementation)
- Past appointments are only displayed up to 3 months back (initial assumption to simplify implementation early on).
- User's do not get automatically logged out of the system.
- Searches can only be conducted for one search area (e.g. patients can't search for services at a certain location, they must do one or the other)

Epic Story ES1:

As a patient, I want to search for Health Care Providers or Centres and book an appointment, so that I can get professional advice for my health.

ID	US1.1
Name	Search for Health Care Centres

User Story Description: As a patient, I want to be able to search for health care centres by name or suburb, so that I can find a centre close by or a specific centre I had in mind.

Acceptance Criteria:

- A patient can search either by name or location, but not both.
- Perform a string match for a health care centre by name and display all <u>exact</u> matches.
- Perform a string match for a health care centre by name and display all <u>near</u> exact matches (prefix match).
- Perform a string match for centre location and display all exact and near matches (prefix match)
- Search results should be displayed as a list, with each list entry showing the name, suburb, services, and average rating of the health care centre.
- Each health care centre name contains a hyperlink to the profile page of the corresponding health care centre.
- If there are no search results, a "No Results Found" message should be displayed to the user.

Estimate	4 story points	Priority	1
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ID	US1.2
Name	Search for Health Care Service

User Story Description: As a patient, I want to be able to search for health care providers by service, so that I can find a provider that is specialised in my area of treatment.

- Display 'Search results for x', where x is the service
- Patients can select service from the displayed selection.
- Search results are displayed as a list of every health care provider that provides the selected service.
- Each list entry
- Search results should be displayed as a list, with each list entry showing the name, health care centre, and average rating of the health care centre.
- Search results contain a hyperlink to each healthcare providers profile.
- If there are no search results, a "No Results Found" message should be displayed to the user.

Estimate 4 story points	Priority	1
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ID	US1.3
Name	Search for Health Care Provider

User Story Description: As a patient, I want to be able to search for a health care provider by name, so that I can find a specific provider that I may have had in the past or from a referral.

Acceptance Criteria:

- Display 'Search results for x', where x is the search string
- Perform a string match for health care providers by name, displaying all exact matches and near matches (prefix match)
- Search results should be displayed as a list, with each entry showing the health care providers name, average rating and service
- Each list entry should contain a hyperlink to the corresponding providers profile
- If there are no search results, a "No Results Found" message should be displayed to the user.

Estimate 2 story points Priority	1
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ID	US1.4
Name	View Health Care Provider Profile

User Story Description: As a patient, I want to be able to view a health care provider's profile, so that I can learn about them and make an informed decision on whether to book an appointment with them.

- The profile page should display the name, specialty, provider number, rating, and the centres that the Provider is working at along with their working hours at these centres.
- There should be hyperlinks to each of the centres that the provider works at that you can click on and navigate to their respective health care centre profile page.
- If any of the above information is missing, the text "Error: Information Missing" should be displayed to the user in place of the missing information.
- Next to each centre that the provider is affiliated with, there is a button to book an appointment with that centre.

Estimate	4 story points	Priority	1
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ID	US1.5
Name	View Health Care Centre Profile

User Story Description:

As a patient, I want to be able to view a health care centre's profile, so that I can learn about them and make an informed decision on whether to visit this centre for medical advice.

Acceptance Criteria:

- The profile page should display the health care centre's name, location and rating.
- There should be a list of all providers that work at the centre displayed, categorized by service they provide
- Each provider has hyperlinks that will navigate to their provider profile (See US1.4 above).
- If any of the above information is missing, the text "Error: Information Missing" should be displayed to the user in place of the missing information.
- Next to each provider that the centre is affiliated with, there is a button to book an appointment with that provider.

Estimate	4 story points	Priority	1
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ID	US1.6
Name	Book an Appointment

User Story Description: As a patient, I want to be able to book an appointment with a healthcare provider at a specified healthcare centre, so that I can seek medical treatment.

- Accessed by selecting "book" button on either a health care centre or health care provider's profile page
- Booking page displays information about provider and centre such as name, location, service, opening hours, average rating.
- User is prompted to choose a date, and then a time by choosing from a selection list of available time slots, each 30 min long.
- Only available times are shown to the user so they cannot book outside of opening hours or double book
- User has to select a date in the future, and can only book up to 6 months in the future (this is an initial assumption)
- Patient is prompted to optionally enter brief reason for visit via a text entry box.
- Patient presses a button to finalise booking. If successful, page displays a "Booking successful" message
- If there are no available times, display "no available times"

Estimate	4 story points	Priority	1
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Epic Story ES2:

As a user, I want to be able to manage my profile page, to keep myself and others interacting with me through the medical system informed of my accurate personal details.

ID	US2.1
Name	View Past appointments (patient)

User Story Description: As a patient, I want to be able to view my past appointments, so that I can review my medical diagnosis and treatments and refer to past advice.

Acceptance Criteria:

- Displays chronological list (starting with most recent) of appointments the patient has had with any healthcare provider.
- List displays past appointments in the last 3 months (This is an initial assumption)
- Each list entry displays appointment date/time, healthcare centre, healthcare provider name
- The healthcare centre names contain hyperlinks to their profiles
- The healthcare provider names contain hyperlinks to their profiles
- If there are no past appointments, "No past Appointments" will be displayed

Estimate	5 story points	Priority	4
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ID	US2.2
Name	View Upcoming appointments (patient)

User Story Description: As a patient, I want to be able to view a list of my upcoming appointments, so I can be reminded when these are on and can manage my time accordingly

- Accessing upcoming appointments from profile should display a new webpage
- Upcoming and previous appointments are on the same web page, but different tabs.
- Displays list of upcoming appointments in chronological order starting with nearest appointment to current date
- List displays appointment date/time, appt location (Centre), and provider name
- The healthcare centre names contain hyperlinks to their profiles
- The healthcare provider's names contain hyperlinks to their profiles if the profile doesn't exist, the hyperlink is disabled
- Updates automatically as new appointments are booked
- If no appointments are upcoming, displays "no upcoming appointments"

Estimate	4 story points	Priority	2
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ID	US2.3
Name	Update Profile

User Story Description: As a user, I want to be able to update my profile so that my personal details remain accurate and I can be easily contactable

Acceptance Criteria:

- Selecting edit profile allows the user to edit fields for name, phone number, email, Medicare number (if they're a patient) or Provider number (if they're a healthcare provider)
- A patient can edit these details on their profile through an "Edit Profile" option displayed on their profile page.
- The patient can save any changes to their name, phone number, email or Medicare card number by selecting a "Save" option when in the edit profile mode. If save is not selected, the details are not updated.
- If the user exits the page when in edit mode without saving, a pop up window will display a confirmation message to ensure they don't want to save their changes.

Estimate 2 story points Priority 4

ID	US2.4
Name	Give Rating

User Story Description: As a patient, I want to be able to rate Health Care Centres and Providers, so that other users are informed of the quality of service and can make decisions regarding their health appropriately.

- Display the average rating of the Centre or Provider on their profile page.
- Separately display the patient's rating if they have previously provided one or no rating if they haven't.
- Allow the patient to alter their rating (or provide their first rating) by indicating their satisfaction on a scale of 1-5 (whole numbers only).
- Clicking "Save rating" will submit the patient's rating into the system.
- If patient leaves pages without pressing "Save rating" the rating entered won't submit.
- After a patient enters a new rating, the average rating is recalculated and the new value is displayed on the profile page.

Estimate	2 story points	Priority	4
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ID	US2.5
Name	View Past Appointments (Provider)

User Story Description:

As a provider, I want to be able to view my past appointments, so I can track/remember past patients and view previous advice I have given

Acceptance Criteria:

- Accessing "past appointments" should display a new page
- Web page should display Chronological list of appointments that have been completed starting with most recent
- Displays appointments within the past 3 months
- List displays appointment date/time, appt location, and patient name
- If no past appointments exist, display message "No past appointments"
- Only shows appointments that are associated with that provider
- Each list entry contains link to view/edit appt notes
- Patient's name should contain a hyperlink to redirect to patient's profile page (separate implementation, but must have capacity to be able to do that)

Estimate	5 story points	Priority	3
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ID	US2.6
Name	View Upcoming Appointments (Provider)

User Story Description: As a healthcare provider, I want to be able to view upcoming appointments so I can plan my time efficiently and prepare accordingly

- Accessing upcoming appointments should display a new webpage
- Displays list of upcoming appointments in chronological order starting with nearest appointment to current date
- List displays appointment date/time, appt location (Centre), and patient name
- Updates automatically as new appointments are booked
- Only shows appointments that are associated with that particular provider
- If no appointments are upcoming, displays "no upcoming appointments"
- Patients name will contain a hyperlink to redirect to patient's profile page if no profile exists, no hyperlink option should exist

Estimate	4 story points	Priority	2
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ID	US2.7
Name	View Notes and Medication (user)

User Story Description: As a user, I want to be able to view the notes and medication prescribed for a past appointment so that I remember and track previous visits in detail to manage my own/the patient's health

Acceptance Criteria:

- Accessed through clicking on a particular appointment in a user's appointment history
- Appointment page shows appointment time/date, patient name, provider name, notes taken and medication assigned
- If user is a patient, then they can only view the page, no editing can be done
- If there are no notes or medications, the fields will remain blank

Estimate	4 story points	Priority	3
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ID	US2.8
Name	Grant Permission

User Story Description: As a patient I want to be able to give permission for providers to access my appointment history, so they can be informed of my ongoing treatment

Estimate	4 story points	Priority	3

Epic Story ES3:

As a user, I want to log-in with a username and password, so I can keep my account secure

ID	US3.1
Name	Successful Login

User Story Description: As a user, I want to be able to log into the system with a correct email and password, so that I can securely view my profile.

Acceptance Criteria:

- After entering a correct email and password, the home page is displayed
- Closing the tab doesn't log user out automatically
- If an incorrect or non-registered email or password is entered, an error message is displayed

Estimate	2 story points	Priority	1
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ID	US3.2
Name	Successful Logout

User Story Description: As a user, I want to be able to logout of the system to prevent others from accessing my account

Acceptance Criteria:

- Logout button accessible from all web page
- User is logged out, and redirected to login page
- Pressing back in browser or retyping url produces login error

Estimate	1 story point	Priority	2
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ID	US3.3
Name	Password Reset

User Story Description: As a user, I want to be able to reset my password if login fails, so that I can access my page even if my password is forgotten.

- An option to reset password is displayed after an incorrect login attempt is made
- Reset by entering email address which sends a link to that address to reset password
- Through this link, entering a new password updates the user's password

Estimate	3 story points	Priority	5
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ID	US3.4
Name	Login Lockout

User Story Description: As a system manager, I want to lock users out of the system after 3 incorrect login attempts.

- After 3 failed attempts, a message is displayed to the user that they are locked out
- Username and password fields are disabled

Estimate	2 story points	Priority	5
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Epic Story ES4:

As a provider, I want to be able to view and edit past/future patients appointment details, so I am aware of previous treatment they have

ID	US4.1
Name	Access Patient History

User Story Description: As a provider, I want to access the appointment history of any past/future patients so I am aware of any past treatment they have had

Acceptance Criteria:

- When a provider opens a patients profile, a list of previous appointments for the patient is also displayed
- Only a provider that has been granted permission by the patient (see US 2.8) can see this history, the appointments do not show for an provider without permission
- Only providers with a current/past appointment with that patient can be granted permission and therefore access appointment history
- Provider can access individual appointments from this history (see 4.2)

Estimate	6 story points	Priority	1
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ID	US4.2
Name	Access Appointment Notes

User Story Description: As a provider, I want to be able to add notes and medication to past appointments so that the patient or other providers can reference them

Acceptance Criteria

Estimate	2 story point	Priority	1

ID	US4.3
Name	Refer patient

User Story Description: As a provider, I want to be able to refer a patient to a specialist, so that I can direct them to the appropriate treatment

Estimate	5 story points	Priority	3