

**HOSTEL ROOM ALLOCATION MANAGEMENT**

**TEST REPORT**

                              Version *<1.0>*

*02/04/2018*

Submitted by-

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**VERSION HISTORY**

|  |  |  |  |
| --- | --- | --- | --- |
| **Version #** | **Implemented by** | **Revision Date** | **Brief Description** |
| **1.0** | **Abhinav Suthar &**  **Nagelli Balamallesh**  **(GROUP-17)** | **02/04/2018** | **It’s a Hostel Room Allocation Management system** |
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|  |  |  |  |

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**1.0 INTRODUCTION**

* 1. **Purpose**

*The purpose of making this test report is to find/discover defects which*

*Have occurred during the development phase of the software.It can be*

*Also used to check if all the functionalities are delivered as mentioned in*

*The SRS document.*

1. **TEST PLAN**

*We are doing testing level specific test plans and under this we are*

*Also following unit test plan and system test plan.*

1. DETAILS OF UNIT TESTING

**(For Main)**

* 1. **void main**
     1. **Void main**

**3.1.2 Features to be Tested**

**3.1.2.1 Void main launches the main\_handler and save data on exit.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void  main () | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.1.1.1 |  | Launch main\_handler and save data on exit | Launch main\_handler and save data on exit | Pass | verified |

* 1. **void Main\_handler**
     1. **void Main\_handler**

**3.2.2 Features to be Tested**

**3.2.2.1 Checks the Launch of student, admin classes and data by**

**entering the numericals 1 ,2 & 3 which are in the main\_handler.**

* + 1. **Item Pass/Fail Criteria**

* + - 1. **The software must display the respective classes by entering inputs 1,2&3.**
      2. **If we enter numericals are other than 1,2&3 it shows error.**
      3. **The software doesn’t take string as input, if it enters it shows Error - Enter a valid Command.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void  Main\_handler () | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.2.1.1 | 1 | Launch student class | Launch student class | Pass | Verified |
| 3.2.1.2 | 2 | Launch admin class | Launch admin class | Pass | Verified |
| 3.2.1.3 | 3 | Save data and exit | Save data and exit | Pass | Verified |
| 3.2.1.4 | Remaining numerical value | Error: Integer wanted | Error: Integer wanted | Pass | Verified |
| 3.2.1.5 | String | Error: Enter a valid command | Error: Enter a valid command | Pass | Verified |

**(For Student)**

* 1. **void Login**

**3.3.1 void Login**

**3.3.2 Features to be tested**

**3.3.2.1 Student can login with his/her username and password if it**

**matches with that in Database.**

* + 1. **Items Pass/Fail Criteria**

**3.3.3.1 If Student enters valid username and password than it shows**

**Login Successful and he/she can access further options.**

**3.3.3.2 If Student enters invalid username and password than it shows**

**Login Unsuccessful and he/she taken back to login again.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void login () | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.3.1.1 | Username: B16CS001  Password:7240505091 | Login Successful | Login Successful | Pass | verified |
| 3.3.1.2 | Username: B16CS001  Password:7240505088 | Login Unsuccessful | Login Unsuccessful | Pass | verified |
| 3.3.1.3 | Username: b16cs001  Password:7240505091 | Login Successful | Login Unsuccessful | Fail | Username should not be case sensitive |

**3.4 void handler**

**3.4.1 void handler**

**3.4.2 Features to be tested**

**By entering the inputs 1/2/3/4 of void handler the software has to run the**

**Specific function and has to exit if 5 enters as input.**

**3.4.3 Items Pass/Fail Criteria**

When the User/student enters other than void handler inputs like string & remaining numerical values the software shows error.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void handler() | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.4.1.1 | 1/2/3/4 | Run specific function | Run specific function | Pass | verified |
| 3.4.1.2 | 5 | Exit | Exit | Pass | verified |
| 3.4.1.3 | Other numerical values | Show message: Enter a valid command | Show message: Enter a valid command | Pass | verified |
| 3.4.1.4 | String values | Show error: Integer wanted | Show error: Integer wanted | Pass | verified |

**3.5 void getRoomDetails**

**3.5.1 void getRoomDetails**

**3.5.2 Features to be tested**

**3.5.2.1 By entering the room number it shows the respective room details.**

**3.5.3 Items Pass/Fail Criteria**

3.5.3.1 If valid Room number is entered then it shows Room is present and shows room status.

3.5.3.2 If invalid Room number is entered then it shows Room is not found.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void getRoomDetails() | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.5.1.1 | 20 | If room is present in table then show otherwise not found | Room not found | Pass | verified |
| 3.5.1.2 | 5 | If room is present in table then show otherwise not found | Status of room no 5 is occupied | Pass | verified |

**3.6 void getEmptyRooms**

**3.6.1 void getEmptyRooms**

**3.6.2 Features to be tested**

**The function Shows the list of empty rooms available with help of function using bool isRoomEmpty.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void getEmptyRooms() | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.6.1.1 |  | Show list of all empty rooms. | Show list of all empty rooms. | Pass | verified |

**3.7 bool isRoomEmpty**

**3.7.1 bool isRoomEmpty**

**3.7.2 Features to be tested**

**By entering the respective room number it checks whether the room is present or not and occupied or not.**

**3.7.3 Items Pass/Fail Criteria**

3.7.3.1 If student enters a valid room number it shows the room is present and occupied or unoccupied.

3.7.3.2 If student enters a invalid room number which doesn’t exist in database then it shows the room is not present.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | bool isRoomEmpty() | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.7.1.1 | 310 | true | true | Pass | Room present but unoccupied |
| 3.7.1.2 | 301 | false | false | Pass | Room present but occupied |
| 3.7.1.3 | 380 | false | false | Pass | Room is not present |

**3.8 Room\_getRoomObject**

**3.8.1 Room\_getRoomobject**

**3.8.2 Features to be tested**

**By entering respective room number the RoomObject has to be returned.**

**3.8.3 Items Pass/Fail Criteria**

**3.8.3.1 If student enters a valid room number then RoomObject is returned.**

**3.8.3.2 If student enters a invalid room number then it shows error by saying room is not present.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | Room\_ getRoomObject() | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.8.1.1 | 301 | Room object is returned | Room object is returned | Pass | verified |
| 3.8.1.2 | 380 | Should show error of room not present | Room object is returned | Fail | I should check first room is available or not |

**3.9 void putRequest**

**3.9.1 void putRequest**

**3.9.2 Features to be tested**

**Student can put request for change/swap room .**

**3.9.3 Items Pass/Fail Criteria**

**3.9.3.1 If student put request with respective room number then database checks whether the room is occupied or not. If occupied it shows Room is already occupied.**

**3.9.3.2 if room is unoccupied then it shows Request successfully placed.**

**3.9.3.3 If student enters a wrong room number Which doesn’t exist in database it shows Room is not available.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void putRequest() | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.9.1.1 | 305 | Room already occupied | Room already occupied | Pass | verified |
| 3.9.1.2 | 310 | Request successfully placed | Request successfully placed | Pass | verified |
| 3.9.1.3 | 380 | Room not available | Room not available | Pass | verified |

**3.10 void viewMyRequests**

**3.10.1 void viewMyRequests**

**3.10.2 Features to be tested**

**3.10.2.1 Student/User can check his request status if he had placed any request before.**

**3.10.3 Items Pass/Fail Criteria**

3.10.3.1 If Student/user have placed any requests before it shows list of requests with details.

3.10.3.2 If student/User have not placed any request then it shows You don’t have any request placed.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void viewMyRequests() | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.10.1.1 | If request for user is present | List of requests with details. | List of requests with details. | Pass | verified |
| 3.10.1.2 | If user don’t have any request placed | You don't have any request placed | You don't have any request placed | Pass | verified |

If user input string value instead of integer value at some points it will show error message and ask user to enter data again.

**(For Admin)**

**3.11 void Login**

**3.11.1 void Login**

**3.11.2 Features to be tested**

**3.11.2.1 Admin can login with his/her username and password if it**

**matches with that in Database.**

* + 1. **Items Pass/Fail Criteria**

**3.11.3.1 If Admin enters valid username and password than it shows**

**Login Successful and he/she can access further options.**

**3.11.3.2 If Admin enters invalid username and password than it shows**

**Login Unsuccessful and he/she taken back to login again.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 0TEST ID | void login () | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.11.1.1 | Username: B16CS001  Password:7240505091 | Login Successful | Login Successful | Pass | verified |
| 3.11.1.2 | Username: B16CS001  Password:7240505088 | Login Unsuccessful | Login Unsuccessful | Pass | verified |
| 3.11.1.3 | Username: b16cs001  Password:7240505091 | Login Successful | Login Unsuccessful | Fail | Username should not be case sensitive |

**3.12 void handler**

**3.12.1 void handler**

**3.12.2 Features to be tested**

**By entering the inputs 1/2/3/4 of void handler the software has to run the**

**Specific function and has to exit if 5 enters as input.**

**3.12.3 Items Pass/Fail Criteria**

When the User/student enters other than void handler inputs like string & remaining numerical values then the software shows error.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void handler () | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.12.1.1 | 1/2/3/4 | Run specific function | Run specific function | Pass | verified |
| 3.12.1.2 | 5 | Exit | Exit | Pass | verified |
| 3.12.1.3 | Other numerical values | Show message: Enter a valid command | Show message: Enter a valid command | Pass | verified |
| 3.12.1.4 | String values | Show error: Integer wanted | Show error: Integer wanted | Pass | verified |

**3.13 void getStudentDetails**

**3.13.1 void getStudentDetails**

**3.13.2 Features to be tested**

**3.13.2.1 Admin can check the details of student by entering respective student id.**

**3.13.3 Items Pass/Fail Criteria**

3.13.3.1 If Admin enters a valid Student ID then It shows the Details of Student.

3.13.3.2 If Admin enters a invalid student ID then it shows No such Student ID exists.

3.13.3.3 Student ID should not be case sensitive If it is, it shows there is no such Student ID exists.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void getStudentDetails () | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.13.1.1 | ID: B16CS001 | Show details of student | Show details of student | Pass | verified |
| 3.13.1.2 | ID: B16CS044 | No such student id exists | No such student id exists | Pass | verified |
| 3.13.1.3 | ID: b16cs001 | Show details of student | No such student id exists | Fail | ID should not be case sensitive |

**3.14 void getEmptyRooms**

**3.14.1 void getEmptyRooms**

**3.14.2 Features to be tested**

**3.14.2.1 Admin can view the List of all empty rooms available or not.**

**3.14.3 Items Pass/Fail Criteria**

3.14.3.1 If empty rooms are available then it show List of all empty rooms.

3.14.3.2 If empty rooms are not available the it show No empty room found.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void getEmptyRooms() | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.14.1.1 | If empty room(s) is/are available | Show list of all empty rooms. | Show list of all empty rooms. | Pass | verified |
| 3.14.1.2 | If not | "No empty room found | "No empty room found |  |  |

**3.15 void viewRequests**

**3.15.1 void viewRequests**

**3.15.2 Features to be tested**

**3.15.2.1 Admin can view requests placed by the Students/Users.**

**3.15.3 Items Pass/Fail Criteria**

3.15.3.1 Admin first checks if there any request exists, if exists then admin can view the List of requests with details.

3.15.3.2 If there is no request exists it means there is No request placed by the students/Users.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void viewRequests() | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.15.1.1 | If request(s) exists | List of requests with details. | List of requests with details. | Pass | verified |
| 3.15.1.2 | If not | No request placed | No request placed | Pass | verified |

**3.16 void changeRoomStatus**

**3.16.1 void changeRoomStatus**

**3.16.2 Features to be tested**

**3.16.2.1 Admin will change and update the Database with the present status of the rooms.**

**3.16.3 Items Pass/Fail Criteria**

3.16.3.1 Admin will check status of the rooms by entering room numbers.

3.16.3.2 After checking status if Status of the room is not changed in Database then Admin will update the status of the room.

3.16.3.3 If Admin enters a invalid Room number it shows Room doesn’t exist(Error).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void  changeRoomStatus() | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.16.1.1 | Room\_no: 306  Status: Occupied | Change status of room to occupied | Change status of room to occupied | Pass | verified |
| 3.16.1.2 | Room\_no: 380  Status: Occupied | Room doesn't exist | Do nothing | Fail | Should show error |

**3.17 void AcceptRequests**

**3.17.1 void AcceptRequests**

**3.17.2 Features to be tested**

**3.17.2.1** Admin will accept requests based on the availability of the rooms by checking the status of the rooms.

**3.17.3 Items Pass/Fail Criteria**

3.17.3.1 Admin will check one’s request by entering his ID and room number.

3.17.3.2 After that Admin will check status of the room which is requested by student/User. If the room is empty or Unoccupied then Accept requests for change/swap room otherwise rejects it.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void  AcceptRequest () | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.17.1.1 | ID: B16CS001  Room\_no: 306  Status: 0 or 1 | Request status changed | Request status changed | Pass | Will not allow case sensitive value |
| 3.17.1.2 | ID: B16CS001  Room\_no: 306  Status: 0 or 1 | Request status changed | Error: Something bad happened try again or request doesn't exist | Fail | Will not allow case sensitive value |
| 3.17.1.3 | ID: B16CS001  Room\_no: 304  Status: 0 or 1 | Error: Something bad happened try again or request doesn't exist | Error: Something bad happened try again or request doesn't exist | Pass | verified |

If user input string value instead of integer value at some points it will show error message and ask user to enter data again.

**(For Database)**

**.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | Room\_ getRoomObject() | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.18.1 | 301 | Room object is returned | Room object is returned | Pass | verified |
| 3.18.2 | 380 | Should show error of room not present | Default room object is returned | Fail | I should check first room is available or not |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | Student\_ getStudentObject() | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.19.1 | B16CS001 | Student object is returned | Student object is returned | Pass | Verified (case sensitive) |
| 3.19.2 | B16CS044 | Should show error of student not present | Default student object is returned | Fail | I should check first room is available or not |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void  setRoomStatus() | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.20.1 | Room\_no: 306  Status: Occupied | Change status of room to occupied | Change status of room to occupied | Pass | verified |
| 3.20.2 | Room\_no: 380  Status: Occupied | Room doesn't exist | Default room object is returned | Fail | Should show error |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | vector<string> split () | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.21.1 | String: string | Return a vector containing single words | Return a vector containing single words | Pass | Verified |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void getStudentFromFile () | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.22.1 | If file is present | Copy data to student array | Copy data to student array | Pass | Verified |
| 3.22.2 | If file is present | Copy data to student array | App crashes | Fail | This happens if data in file is in wrong format or missing |
| 3.22.3 | If file is not present | Empty array | Empty array | Pass | But app will not work because app has no data to work with. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void getRoomFromFile () | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.23.1 | If file is present | Copy data to room array | Copy data to room array | Pass | Verified |
| 3.23.2 | If file is present | Copy data to room array | App crashes | Fail | This happens if data in file is in wrong format or missing |
| 3.23.3 | If file is not present | Empty array | Empty array | Pass | But app will not work because app has no data to work with. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void getRequestFromFile () | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.24.1 | If file is present | Copy data to request array | Copy data to request array | Pass | Verified |
| 3.24.2 | If file is present | Copy data to request array | App crashes | Fail | This happens if data in file is in wrong format or missing |
| 3.24.3 | If file is not present | Empty array | Empty array | Pass | But app will not work because app has no data to work with. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | Rooms\_\* getRooms() | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.25.1 |  | Return rooms array | Return rooms array | Pass | Verified |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | Admin\_\* getAdmin() | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.26.1 |  | Return admin array | Return admin array | Pass | Verified |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | Student\_\*getStudents () | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.27.1 |  | Return student array | Return student array | Pass | Verified |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | Request\_\*getRequests () | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.28.1 |  | Return requests array | Return requests array | Pass | Verified |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | void saveAllDataToFile () | INTENDED RESULT | ACTUAL RESULT | PASS/FAIL | COMMENT |
| 3.29.1 |  | Save data correctly | Save data correctly | Pass | Verified |
| 3.29.2 |  | Save data correctly | Save wrong data if any column of array is null | Fail | We have to check if any field is empty and tell user about it or skip that data |
| 3.29.3 |  | Save data correctly | Save data in wrong format | Fail | Save data in correct format and correct sequence. |
| 3.29.4 |  | Save data correctly | Don't save any data | Fail | Permission for writing data is not granted |

4.0 DETAILS OF SYSTEM TESTING

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Step | Test Step | Intended Result | Actual Result | Pass/Fail |
| 1 | Select Admin/Student -> Login | Should be logged in if credentials are correct | Logged in as student | Pass |
| 2 | Login as student -> Get Room Details | Show room details if exist else show room not exist message | Show room details if exist else show room not exist message | Pass |
| 3 | Login as student -> Get empty rooms list | Show list of all empty rooms available | List showed | Pass |
| 4 | Login as student -> Put room change request | Request will be place and saved | Request placed and saved | Pass |
| 5 | Login as student -> View my all requests | List of all requests displayed if exist | List displayed | Pass |
| 6 | Login as student -> exit | User will be throw to home | User will to throw to hone | Pass |
| 7 | Select Admin/Student -> Login | Should be logged in if credentials are correct | Logged in as admin | Pass |
| 8 | Login as admin ->  View all requests | List of all requests will be displayed if exist | List displayed | Pass |
| 9 | Login as admin ->  Get all empty room list | List of empty rooms will be displayed if exist | List displayed | Pass |
| 10 | Login as admin ->  Accept student request | Specific student request will be accepted/denied if credentials are correct | Request accepted | Pass |
| 11 | Login as admin ->  Get student details | Specific student details will be displayed if Id is correct | Student details displayed | Pass |
| 12 | Login as admin ->  Exit | Admin will be thrown to home | Home | Pass |
| 13 | Exit | Save data to file and exit program | Data saved and program terminated | Pass |

**5.0 UNRESOLVED TEST INSTANCES**

|  |  |  |
| --- | --- | --- |
| Test Case ID | Summary of defect | Why not resolved |
|  |  |  |
|  |  |  |
|  |  |  |