Temasek Polytechnic

School of Informatics and IT

**Diploma in Information Technology (IT)**

Software Test Specifications (STS)

**Project Particulars**

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| **Tutor** | Qi Yutao |
| **Class** | P04 |
| **Project Title** | Hotel Management System |

**Project Team’s Particulars**

|  |  |
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Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 3/2/2019 | 1.1 | Added System Integration | Lee Jing |
| 7/2/2019 | 1.2 | Added Test Log | Koh Jia Hui |
| 8/2/2019 | 1.3 | Added Module development | Lee Jing & Koh Jia Hui |
| 9/2/2019 | 1.4 | Added Test Log | Lee Jing |
| 10/2/2019 | 1.5 | Added Test Log and module development | Lee Choon Loong |

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# DISTRIBUTION OF WORKLOAD

|  |  |
| --- | --- |
| **Construction & Testing** | **Members** |
| Room availability and booking module | Lee Choon Loong |
| Housekeeping and staff management module | Lee Jing |
| Reporting module | Toh Chien Yuan |
| User access control | Koh Jia Hui |

# MODULE DEVELOPMENT AND UNIT TESTING

# Room availability and booking module

We started off having each of us suggesting many different methodology to be used like Waterfall, Agile, Prototyping and Incremental for this hotel management system. Having a small debate among my team with each possible scenario given, we have decided to choose Agile methodology. To fully maximise what we want to achieve, we make sure that Mr Wang is satisfied with the current development before moving on to the next development.

Since room availability and booking module plays a really huge part and are usually being checked on first, i have to ensure that the quality of software development is high. To do that, i did a thorough research on how the software development has to be designed or developed. I make sure that the development has to be neat and friendly and how the all the bookings or the highlighted booking(s) should be shown. After doing the research, i use my knowledge of web design to make the codes easy to understand as well as my design to be straightforwardly clean.

After finishing a part of the development, i will let Mr Wang test on the development to see if he is satisfied with the development i came out with or if he have any recommendation or improvements to make before moving on to the next development phase.

# Housekeeping and staff management module

After much discussion, my team and I had decided to use the Agile methodology when developing the hotel management system. As the agile development uses incremental testing, we can ensure that every release of the project is tested thoroughly and any bugs in the system are fixed before the next release. Hence, I will be using the Agile methodology to develop and test the housekeeping and staff management module. I will be developing the module incrementally, function by function, and testing them individually after each function is done.

In order to ensure quality software development, I make sure to have good programming style when developing the module. It is done by ensuring my naming conventions followed the Camel Case where each word is capitalized within the compound and my brace placement to follow end-of-line style. I also reminded myself to not leave any unnecessary comments in the codes. By having good programming style, I can ensure the codes to be understandable, efficient and clean.

As I will be using incremental testing during the development of the module, I will be conducting unit testing continuously, followed by integration testing after completion of every 3 successful unit testing. We will be conducting system test after integrating all the modules. The user acceptance test to be taken by Mr. Wang will be conducted after a successful system test.

# Users access control

We have discussed about different models before developing and requirements gathering stage and we come to a conclusion that Agile methodology is the most suitable model to follow when developing Delonix Regia. Therefore, when completing the Users access control, I have chosen to follow Agile methodology when prototyping module.

To ensure having quality software development, I have followed some labs from other subject and researched on the types of CSS(Cascading Style Sheet) and HTML (Hypertext Markup Language). Regarding the code understandability and efficiency. I have used the Camel Casing naming convention by joining two or more words together as one compound word, and each word is capitalized within the compound.

Our modules are coded separately, each of us will do unit testing separately on our own modules and combine them together and do system testing once the prototype is completed.

# SYSTEM INTEGRATION

We use GitHub to do system integration. The team leader will first create a repository on GitHub and upload the base project into the repository server. each member will download the project into their computer and develop their module respectively.

Team members are to commit changes they made in their local project file to the repository and update their local copy whenever another team member uploaded their module into the repository. GitHub is able to compare the codes from the local copy with the codes on the repository and merge and update them accordingly. This is how our system integration is done.

In order to ensure that the modules have been integrated successfully, we will conduct integration and system test whenever a member commit their codes into GitHub repository.

# TEST LOG

# Add User

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/No** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Remarks** |
| 1. | Click on “Users” | None | Proceed to Staff page. | Proceed to Staff page. | SUCCESSFUL |
| 2 | Click on “Add staff” | None | Proceed to Add Staff page. | Proceed to Add Staff page. | SUCCESSFUL |
| 3 | User fill up the form & click on save | Role : Administrator  Email: kohjh@delonixregia.com  Phone: 97356668  Bank account: 025-4-02485  Status: Active | Form will be submitted and will be added into the database. . | Form will be submitted and will be added into the database. . | SUCCESSFUL |
| Alternative flow #1: If user did not fill up the form and left some blank. | | | | | |
| 4 | Repeat step 3 | None | Form will be submitted and will be added into the database. . | Form will be submitted and will be added into the database. . | SUCCESSFUL |

* 1. Updating staff information

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/No** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Remarks** |
| 1. | Click on “Users” | None | Proceed to Staff page | Proceed to Staff page | SUCCESSFUL |
| 2 | Click on “Edit” icon | None | Proceed to Staff Edit page | Able to go into Staff Edit page. | SUCCESSFUL |
| 3 | Update/Change the details needed in the form and click on “Save” | Role: Receptionist  Email: kohjh@delonixregia.com  Password: \*\*\*\*\*\*\*\*  Name: KOH JIA HUI  Phone: 97356668  Bank account: 430-5-102789634  Date of birth 29-03-1996  Status: Active | Form will be submitted and the database will be updated. | Form will be submitted and the database will be updated. | SUCCESSFUL |
| Alternative flow #1: User types in details wrongly | | | | | |
| 4 | Repeat step 1-3 | None | Able to edit the information in the form. | Able to edit the information in the form. | SUCCESSFUL |

* 1. Updating Client

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/No** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Remarks** |
| 1. | Click on “Users” | None | Proceed to Staff page | Proceed to Staff page | SUCCESSFUL |
| 2 | Click on “Client” | None | Proceed to Client page | Proceed to Client page | SUCCESSFUL |
| 3 | Click on “Edit” icon | None | Proceed to Client Edit page | Proceed to Client Edit page | SUCCESSFUL |
| 4 | Update/Change the details needed in the form and click on “Save” | Title: Ms  First Name: Perez  Last Name: Mechelle  Phone 92378178  Email: mechellep@gmail.com  Address Line: 9713 St Margarets St. Jupiter, FL 33458  City: USA  County/Region/State: US  Postcode/Zip: 3348  Country: USA | Form will be submitted and the database will be updated. | Form will be submitted and the database will be updated. | SUCCESSFUL |
| Alternative flow #1: User types in details wrongly | | | | | |
| 5 | Repeat step 1-4 | None | Able to edit the information in the form. | Able to edit the information in the form. | SUCCESSFUL |

* 1. Redirect to **Dashboard (homepage)** after admin logging in

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/No** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Remarks** |
| 1 | Admin key in username | None | Required to fill in password | Required to fill in password | N.A |
| 2 | Admin key in password | None | Required to click on login button | Required to click on login button | N.A |
| 3 | Admin clicks on login button | None | Redirect to Dashboard page | Redirect to Dashboard page | SUCCESSFUL |
| **Info** | Admin will be able to see the room availability on the left and the latest booking on the right | - | - | - | - |
| 4 | Admin clicks on number of ‘Rooms Booked Today’ link | None | Redirect to Booking page | Redirect to Booking page | SUCCESSFUL |
| 5 | Admin clicks on the latest booking ID link | None | Redirect to Booking page | Redirect to Booking page | SUCCESSFUL |
| 6 | Admin clicks on the ‘View all reports’ link | None | Redirect to Reports page | Redirect to Reports page | SUCCESSFUL |
| 7 | Admin clicks on the ‘View all bookings’ link | None | Redirect to Booking page | Redirect to Booking page | SUCCESSFUL |

* 1. **Booking page**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/No** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Remarks** |
| 1 | Admin search for booking ID or name of client | ‘AA1234567890’  ‘Name’ | A table of result will be shown:  -Booking ID  -Duration of stay  -Client  -Room  -Status | A table of result will be shown:  -ID  -Duration of stay  -Client  -Room | SUCCESSFUL |
| 2 | Admin can edit the booking details | -Duration of stay  -Client name  -Room’  -Status | Data record of client will be updated accordingly | Data record of client will be updated accordingly | SUCCESSFUL |
| 3 | Admin can choose one, multiple or all booking checkbox to delete | None | Data will be deleted | Data will be deleted | SUCCESSFUL |
| 4 | Admin can choose one, multiple or all booking checkbox to export | None | A pdf of selected bookings will be downloaded | A pdf of selected bookings will be downloaded | SUCCESSFUL |
| **Alternative flow #1: Admin key in wrong booking ID or name** | | | | | |
| 1 | Admin search for booking ID or name of client | ‘AA1234567890’  ‘Name’ | A table of result will be shown:  - Booking ID  -Duration of stay  -Client  -Room | A table with 0 result will be shown | SUCCESSFUL |

* 1. **Add booking**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/No** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Remarks** |
| 1 | Admin key in the particulars of booking and click on calculate to calculate the total price of booking and save to make a booking | Booking details  **Status**  -Confirmed  -Pending  -Cancelled  **Arrival date/time**  **Departure date**  **Unique ID**  Payment details  **Payment method**  **Room price**  **Tax**  **Security**  **Deposit**  **Promo code**  **Discount** | Create a booking | Create a booking | SUCCESSFUL |
| 2 | Admin click on sub-navigation ‘Client’ or the ‘Add client details’ from **Add booking page** | None | Redirect to Client page under ‘add bookings’ | Redirect to Client page under ‘add bookings’ | SUCCESSFUL |
| 3 | Admin key in the particulars of client and click save button | Client details  **Title**  **First Name**  **Last Name**  **Phone**  **Email**  **Address**  **City**  **Country/Region/State**  **Postcode/Zip**  **Country** (dropdown list)  **Notes** | Save the booking client’s details | Save the booking client’s details | SUCCESSFUL |
| **Alternative flow #1: Empty text field not filled** | | | | | |
| 1 | Admin missed out a text field | Eg. Email/ departure date | Page will not be redirected and a warning will be prompted to let admin double check and key in the required empty text field | Page will not be redirected and a warning will be prompted to let admin double check and key in the required empty text field | SUCCESSFUL |

* 1. **Invoice**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/No** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Remarks** |
| 1 | Admin search for booking ID or name of client | ‘AA1234567890’  ‘Name’ | A table of result will be shown:  -Booking ID  -Issue date  -Due date  -Created  -Status  -Total | A table of result will be shown:  -Booking ID  -Issue date  -Due date  -Created  -Status  -Total | SUCCESSFUL |
| 2 | Admin can edit the booking details | Status  -Paid  -Not paid  -Cancelled | Status of the client invoice will be updated accordingly | Status of the client invoice will be updated accordingly | SUCCESSFUL |
| 3 | Admin can choose one, multiple or all booking checkbox to delete | None | Data will be deleted | Data will be deleted | SUCCESSFUL |
| 4 | Admin can choose one, multiple or all booking checkbox to export | None | A pdf of selected bookings will be downloaded | A pdf of selected bookings will be downloaded | SUCCESSFUL |
| **Alternative flow #1: Admin key in wrong booking ID** | | | | | |
| 1 | Admin search for booking ID or name of client | ‘AA1234567890’  ‘Name’ | A table of result will be shown | A table with 0 result will be shown | SUCCESSFUL |

* 1. Search for employee records

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/No** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Remarks** |
| 1. | After Login click on “Housekeeping” | None | Proceed to employee record page | Proceed to employee record page | SUCCESSFUL |
| 2. | Type employee name in search bar | Mark | Able to type “Mark” | Able to type “Mark” | SUCCESSFUL |
| 3. | Use the enter key to start the search | None | System only display the employee record for employee name that contain Mark | System only display the employee record for employee name that contain Mark | SUCCESSFUL |
| **Alternative flow #1: User search the employee phone number** | | | | | |
| 2a | Type employee phone number in search bar | 91234276 | Able to type in phone number |  | To be implemented in future |
| 3. | Use the enter key to start the search | None | System only display the employee record for employee phone number that contain 91234276 |  | To be implemented in future |
| **Alternative flow #2: User search for an employee that does not exist in the system database** | | | | | |
| 2b. | Type employee name in search bar | Lee Jing | Able to type “Lee Jing” | Able to type “Lee Jing” | SUCCESSFUL |
| 3. | Use the enter key to start the search | None | System shows an error message telling the user that the employee does not exist | System shows an error message telling the user that the employee does not exist | SUCCESSFUL |

* 1. Update Duty Status

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/No** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Remarks** |
| 1. | After login click on “Housekeeping” | None | Proceed to Employee Record page | Proceed to Employee Record page | SUCCESSFUL |
| 2. | Click on “Duties” | None | Proceed to Duties page | Proceed to Duties page | SUCCESSFUL |
| 3. | Change the status of the duty from dropdown list | Done | Able to select “Done” from drop down | Able to select “Done” from drop down | SUCCESSFUL |
| 4. | Click on “Edit” icon | None | Able to click on icon and message will appear stating that the status have been updated | Able to click on icon and message will appear stating that the status have been updated | SUCCESSFUL |

* 1. Assign duties to housekeeping staff

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/No** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Remarks** |
| 1. | After Login click on “Housekeeping” | None | Proceed to employee record page | Proceed to employee record page | SUCCESSFUL |
| 2. | Click on “Assign Duties” | None | Proceed to Assign Duties page | Proceed to Assign Duties page | SUCCESSFUL |
| 3. | Fill up the form by selecting duty type from dropdown and typing information | Duty type: Room  Staff name: Jack  room ID: 101  schedule: 10/02/2019 10:00AM  Remarks: Extra bed | Able to select from drop down and type in the form | Able to select from drop down and type in the form | SUCCESSFUL |
| 4. | Click on “Save” button | None | Able to click on button and a message will indicate that the duty have been assign. User is redirected to Manage Duties page | Able to click on button and a message will indicate that the duty have been assign. User is redirected to Manage Duties page | SUCCESSFUL |
| **Alternative flow #1: User left a fill empty** | | | | | |
| 4a. | Click on “Save” button | None | Able to click on button and a error message will indicate that the form have not been filled User will not be redirected to Manage Duties page | Able to click on button and a error message will indicate that the form have not been filled User will not be redirected to Manage Duties page | SUCCESSFUL |

* 1. Edit Duty

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/No** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Remarks** |
| 1. | After Login click on “Housekeeping” | None | Proceed to employee record page | Proceed to employee record page | SUCCESSFUL |
| 2. | Click on “Manage Duties” | None | Proceed to Manage Duties page | Proceed to Manage Duties page | SUCCESSFUL |
| 3. | Click on edit icon | None | Proceed to Edit Duty page with all input containing selected duty details. | Proceed to Edit Duty page with all input containing selected duty details. | SUCCESSFUL |
| 3. | Make necessary changes by editing the details | Duty type: General  Staff name: Jack  room ID: 101  schedule: 10/02/2019 11:00AM  Remarks: | Able to select from drop down and type in the form | Able to select from drop down and type in the form | SUCCESSFUL |
| 4. | Click on “Save” button | None | Able to click on button and a message will indicate that the duty have been assign. User is redirected to Manage Duties page | Able to click on button and a message will indicate that the duty have been assign. User is redirected to Manage Duties page | SUCCESSFUL |
| **Alternative flow #1: User left a fill empty** | | | | | |
| 4a. | Click on “Save” button | None | Able to click on button and a error message will indicate that the form have not been filled User will not be redirected to Manage Duties page | Able to click on button and a error message will indicate that the form have not been filled User will not be redirected to Manage Duties page | SUCCESSFUL |

* 1. Delete Duty

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S/No** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Remarks** |
| 1. | After Login click on “Housekeeping” | None | Proceed to employee record page | Proceed to employee record page | SUCCESSFUL |
| 2. | Click on “Manage Duties” | None | Proceed to Manage Duties page | Proceed to Manage Duties page | SUCCESSFUL |
| 3. | Click on delete icon | None | Able to click on delete icon and message will appear asking user to confirm that he wants to delete the record | Able to click on delete icon and message will appear asking user to confirm that he wants to delete the record | SUCCESSFUL |
| 4. | Click on “Ok” button | None | Duty will be deleted and page will refresh. | Duty will be deleted and page refresh. | SUCCESSFUL |
| **Alternative flow #1: User decide to not delete the duty** | | | | | |
| 4a | Click on “cancel” button | None | Duty will not be deleted and page will not refresh | Duty will not be deleted and page will not refresh | SUCCESSFUL |