###### 4.5.1 Tests Plans (for Unit Testing, Integration Testing, and System Testing)

Unit Testing

1. Login

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| --- | --- | --- | --- | --- | --- |
| **Test ID** | **Test**  **Description** | **Input** | **Expected result** | **Actual Result** | **Status** |
| Login | This test the login module with correct input to access the system | Account type: Admin  Username: admin  Password: 12345 | Allow the user to log in to the system | The user logged into the system | Pass |
| Login | This test the login module with incorrect input to access the system | Account type: Staff  Username: admin  Password: 12345 | Deny the user access to the system | The user was unable to log into the system. Error message incorrect  username or password | Pass |

2. Attendance

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| **Test ID** | **Test**  **Description** | **Input** | **Expected result** | **Actual Result** | **Status** |
| Attendance | This test the Attendance with correct  input | Staff ID: 101  Time in: 9:00  Date: 07/09/2020  Finger-Print: Matched | Input the following in the registry database | Signed In | Pass |
| Attendance | This test the Attendance with incorrect input | Staff ID: 101  Time in: 9:00  Date: 07/09/2020  Finger-Print: Not Matched | Invalid | Invalid | Pass |

3. Apply Leave

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| --- | --- | --- | --- | --- | --- |
| **Test ID** | **Test**  **Description** | **Input** | **Expected result** | **Actual**  **Result** | **Status** |
| Apply  Leave | This test the Apply Leave process with correct input to request for leave | Staff ID: 101  Leave Type: Annual  From Date: 05/09/20  To Date:20/09/20  Description: Sick | Allow the user to apply request | The request saved into leave history record with a message  ‘request submitted succesful’ | Pass |
| Apply  Leave | This test the Apply Leave process with incorrect input to request for leave | Staff ID: 101  Leave Type: Annual From Date: To Date:05/09/20 Description: | Prompt an  error “please fill in the required spaces. | The request not saved into leave history record | Pass |

4. Add Users

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| **Test ID** | **Test Description** | **Input** | **Expected result** | **Actual**  **Result** | **Status** |
| AddUsers | This test the Add user record with correct input | User ID: 101  User type: Staff  Password: 111 | Allow the user to save into the record | The user saved into the record with a message  ‘successful’ | Pass |
| AddUsers | This test the Add user record with incorrect input | User ID: 101(already in the database) User type: Staff  Password: 111 | Prompt an  error “invalid record found. | The user was Prompt with an error  “Invalid. | Pass |

5. View Staff

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| --- | --- | --- | --- | --- | --- |
| **Test ID** | **Test Description** | **Input** | **Expected result** | **Actual**  **Result** | **Status** |
| View Staff | This test the View Staff record with correct input to search for a record | Staff ID: 101 | Retrieve record of the staff with that Id | The user  retrieved record of the staff with the  Id | Pass |
| View Staff | This test the View Staff module with incorrect input to search for a record | Staff ID: 002 | Retrieve an empty record. | The user retrieved an empty record. | Pass |

Integration Testing

1. Login and Account page

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| **Test ID** | **Test**  **Description** | **Input** | **Expected result** | **Actual Result** | **Status** |
| Login and  Account  Page | This test the login and account module with correct input to access the system | Account type: Admin  Username: admin  Password: 12345  Then click on Login | Allow the user to log into the account page in the system | The user logged into the account page in the system | Pass |
| Login and  Account  Page | This test the login and account module with incorrect input to access the system | Account type: Admin  Username: admin  Password: 12345  And don’t click on Login | The system will be stagnant | The system  was stagnant | Pass |

1. Attendance and Report generation

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| --- | --- | --- | --- | --- | --- |
| **Test ID** | **Test**  **Description** | **Input** | **Expected result** | **Actual Result** | **Status** |
| Attendance | This test the Attendance with correct  input | Staff ID: 101  Time in: 9:00  Date: 07/09/2020  Finger-Print: Matched  Then click on sig-in button | The attendance of the staff will be stored with the name and Id and automatically generate a report | The record will be updated | Pass |
| Attendance | This test the Attendance with incorrect input | Staff ID: 101  Time in: 9:00  Date: 07/09/2020  Finger-Print: Not Matched  Then don’t click on sig-in button | Nothing happens to the records in the attendance records table | The attendance record table did not change | Pass |

1. Apply Leave

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test ID** | **Test**  **Description** | **Input** | **Expected result** | **Actual Result** | **Status** |
| Apply  Leave | This test the Apply Leave process with correct input to request for leave | Staff ID: 101  Leave Type: Annual  From Date: 05/09/20  To Date:20/09/20  Description: Sick  Then click the Apply Button | The information of the leave should be added to the leave  history table | The request will be added | Pass |
| Apply  Leave | This test the Apply Leave process with incorrect  input to request for  leave | Staff ID: 101  Leave Type: Annual  From Date: 05/09/20  To Date:20/09/20 Description:  Then don’t click on the  Apply Button | Nothing happens to the records in the leave history  table | The leave history table did not change | Pass |

4. Add Users and View Table

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| --- | --- | --- | --- | --- | --- |
| **Test ID** | **Test**  **Description** | **Input** | **Expected result** | **Actual Result** | **Status** |
| AddUsers and View  Table | This test the Add user record with correct  input | User ID: 101  User type: Staff  Password: 111  Then click on Add Button | The record of the user will be stored with the username, user type and  password | The record of the user will be updated and viewed in the user details  table | Pass |
| AddUsers and View  Table | This test the Add user record with incorrect input | User ID: 101  User type: Staff Password: 111  Then Don’t click on the  Add Button | Nothing happens to the records in the user details table | The user details table did not change | Pass |