UNIVERSITY OF WOLLONGONG AUSTRALIA

Singapore Institute of Management

# School of Computer Science & Information Technology

## CSIT-22-S4-24 - Automatic Project Assignment

## Test Plan

Group No.: FYP-22-S4-32


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# Document Control

**Title: User Manual**

**Document Name: APA-UM-01**

| Owner | Current Version | Last Change on | | Approved by |
|---|---|---|---|---|
| | | Date | Time | |
| Matthew Chua Yu Jie | 1.1 | 10/02/2023 | 1800 | |

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**Record of Revision**

| Revision Date | Description | Section Affected | Changes Made by | Version after Revision |
|---|---|---|---|---|
| 20/12/2022 | Draft of the Test Case | All | Jun Ming, Tyrell | 1.0 |
| 10/02/2022 | Completion of Test Case | All | Everyone | 1.1 |

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# Introduction

## 1.1 Purpose

This test plan shows the methodologies and quality control used for the entire testing process. This document will cover how the team maintains quality control and conducts different tests (e.g testing functionalities via test cases).

## 1.2 Test Environment

Given that our project is a web application, for us to facilitate a suitable test environment which will allow us to test new/current features, we will have to consider different operating systems.

| Operating System | Device Name | Purpose |
|---|---|---|
| Windows OS | Junming/Tyrell's Desktop | To ensure that the system performs up to standard on Windows OS |
| mac OS | Yinli's Desktop | To ensure that the system performs up to standard on mac OS |
| Android | Tyrell's Phone | To ensure that the system can be accessed via android System |

## Test Scope

### 2.1 Features to be Tested

1. User Interface
   1.1 Login Page
   1.2 User Landing Pages

2. User Functions
   3.1 Super Admin Functions
   3.2 Project Admin Functions
   3.3 Employee Functions

3. Project Automation
   4.1 Project Threshold
   4.2 Automation Process

### 2.2 Unit Testing

Low-level testing method for the team to verify the outcome of different functions in batches independent of other parts of the code.

This test allows us to validate the performance of each component before proceeding to the next component.

### 2.3 Integration Tests

This test allows us to test individual components of the code when integrated to verify that they work up to expectations. This allows us to tell if there are any faults between the interactions of functions/pages (e.g Employee's Profile which consists of different functions).

### 2.4 User Acceptance Test

This test is conducted whereby the overall application is tested for acceptability via the team and our supervisor's standard.

### 2.5 Traceability Matrix

This test is conducted to validate that all requirements are checked via test cases such that no functionality is unchecked during the testing period. This also allows us to understand the client's requirements and make sure that the output product should be defect-free.

# Test Methodology

## 3.1 Testing Principles

Given testing is absolutely essential for our application development, our team will abide by the seven principles of testing and strive to be as unbiased as possible.

- Testing shows the presence of defects, not their absence
- Exhaustive testing is impossible
- Early testing saves time and money
- Defects cluster together
- Beware of the pesticide paradox
- Testing is context dependent
- Absence-of-errors is a fallacy

## 3.2 Testing Criteria

| ID - Test Cases | Criteria |
|---|---|
| Pass | Majority of the functions should work according to FYP requirements without any major issue/bug. |
| Fail | In the event of any functions not working as intended, it will be deemed as a failure. |

| ID - Entry | Criteria |
|---|---|
| Entry Criteria | There must be existing data within the database and the repository should be synced to ensure the latest updated version of the application. |
| Exit Criteria | Test Cases must have a passing rate of at least 95% |

# Test Scenarios

## 4.1 Test Login Functionality

1. Test Project Admin Login Function
2. Test Project Admin Invalid Login Function
3. Test Project Admin Logout Function
4. Test Employee Login Function
5. Test Employee Invalid Login Function
6. Test Employee Logout Function
7. Test Super Admin Login Function
8. Test Super Admin Invalid Login Function
9. Test Super Admin Logout Function
10. Test Forgot Password Function

## 4.2 Test Project Admin Features

1. Test for Update Contact Details as Project Admin
2. Test for Project Admin Create Organisation Skill
3. Test for Project Admin Delete Organisation Skill
4. Test for Project Admin Create Project
5. Test for Project Admin Update Project Details
6. Test for Project Admin to remove Project
7. Test for Project Admin Create Employee Account
8. Test for Project Admin Create Existing Employee Account
9. Test for Project Admin Create Account with no matching password
10. Test for Project Admin Delete Employee Account
11. Test for Project Admin Edit Employee Account Contact Info
12. Test for Project Admin Create Assignments
13. Test for Project Admin Add Projects into Assignment
14. Test for Project Admin Remove Projects from Assignment
15. Test for Project Admin Adding Employees into Assignment
16. Test for Project Admin Remove Employees from Assignment
17. Test for Project Admin Process Automatic Assignment
18. Test for Project Admin View Assignment Statistics

### 4.3 Test Employee Features

1. Test View account information as Employee
2. Test Update account information as Employee
3. Test Add skills and competency details as Employee
4. Test Update skills and competency details as Employee
5. Test View skills and competency details as Employee
6. Test View project listing as Employee
7. Test View project details as Employee
8. Test Input/update project preference as Employee
9. Test View assignment result as Employee
10. Test Change and reset password as Employee
11. Test View Organisation as Employee
12. Test View Project Preferences as Employee
13. Test Invalid Input/Update Project Preference
14. Test Invalid Input of Contact Info

### 4.4 Test Super Admin Features

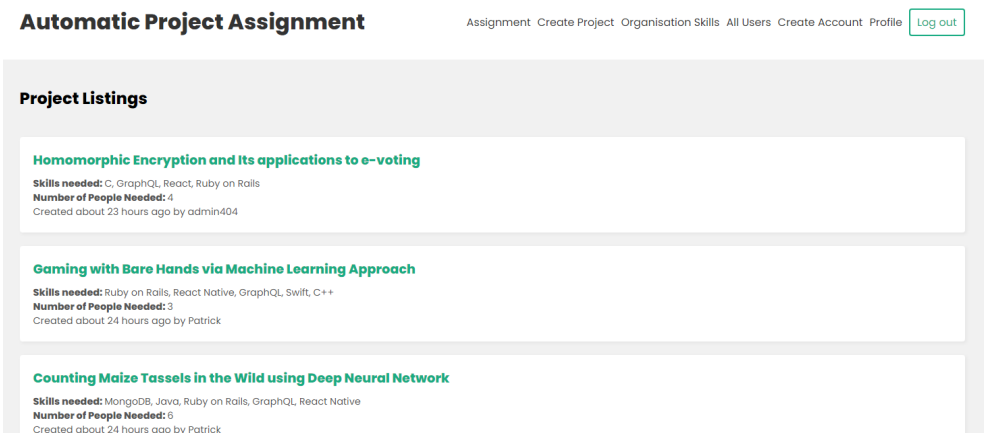
1. Test Create user account as Super Admin
2. Test View user account as Super Admin
3. Test Delete user account as Super Admin
4. Test Create Organisation codes as Super Admin
5. Test Edit user role as Super Admin
6. Test Edit user account contact info as Super Admin
7. Test Manage users in an Organisation as Super Admin
8. Test View User Profile as Super Admin
9. Test View Profile as Super Admin
10. Test Edit Contact Info as Super Admin
11. Test View Organisation Listing as Super Admin
12. Test Delete Organisation Listing as Super Admin
13. Test View Organisation Details as Super Admin
14. Test Filter User Accounts by Project Admin as Super Admin
15. Test Filter User Accounts by Super Admin as Super Admin
16. Test Filter User Accounts by Employee as Super Admin
17. Test Filter User Accounts by Organisation as Super Admin
18. Test Change/Reset Password as Super Admin
19. Test Invalid Input Test for Account Creation
20. Test Invalid Input of Contact Info
21. Test Invalid Input for Organisation creation

## Test Schedule

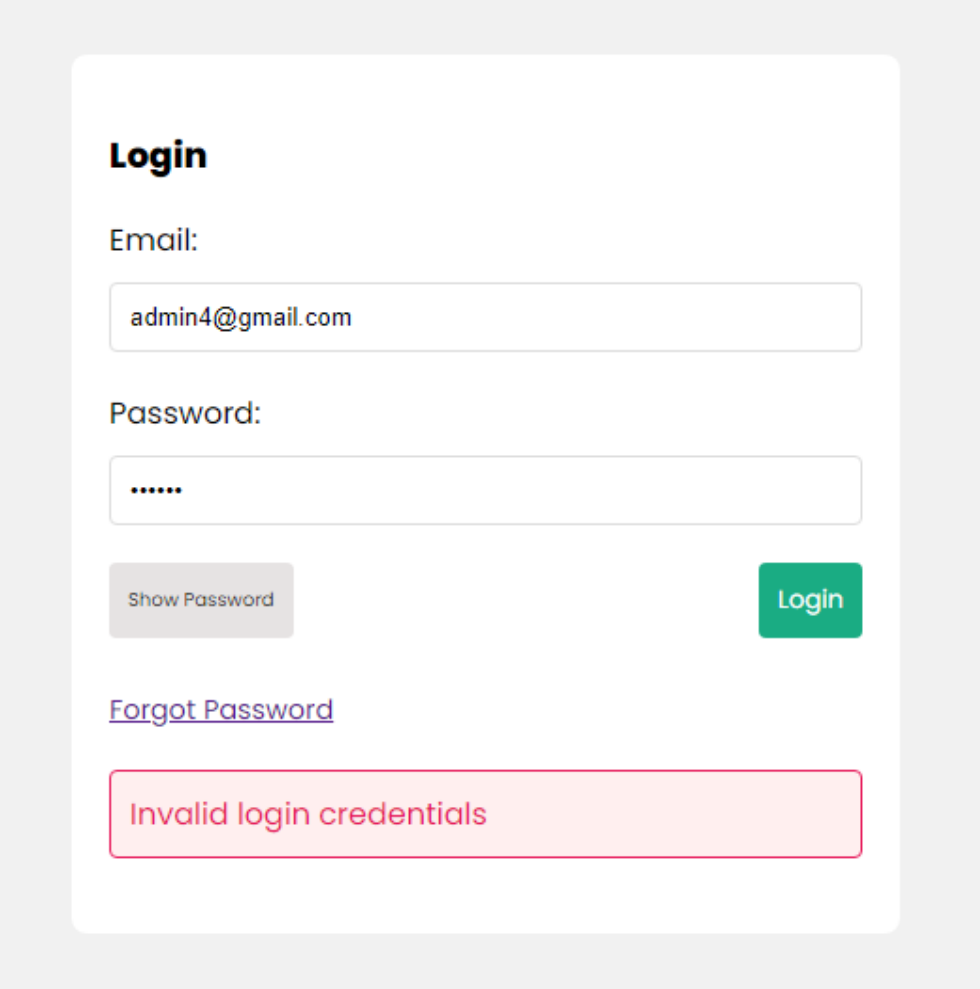
| Testing Phase | Steps | Activity | Scheduled Dates |
|---|---|---|---|
| Unit Testing | Preparation | Do-up of different test cases for each user | 31st Oct 2022 |
| | Execution | Start doing testing according to prepared test case whilst fixing errors/bugs | 28th Nov 2022 |
| Integration Testing | Preparation | Do-up of integration test cases | 2nd Nov 2022 |
| | Execution | Start doing testing according to prepared test case whilst fixing errors/bugs | 30th Nov 2022 |
| UA Testing | Preparation | Do-up of UA test document | 4th Nov 2022 |
| | Execution | Start doing testing according to prepared document whilst fixing errors/bugs | 2nd Dec 2022 |

# Test Case

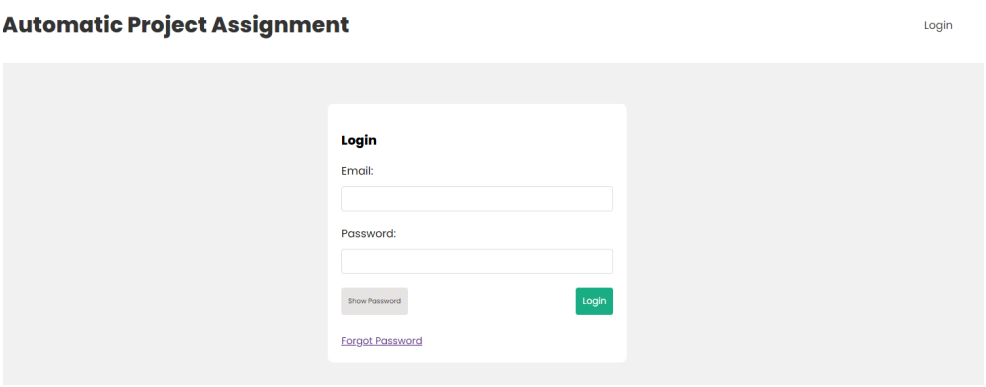
## 6.1 Login/Logout Functionality

| 1-1 Project Admin Login Function | |
|---|---|
| Pre-Condition | 1. Account must be created by Super Admin<br>2. Account must either be of OBS or MSFT Type (e.g., admin1, admin3)<br>3. Project Admin must be able to access the website login page |
| Actions | 1. Enter “admin1@gmail.com” for the Email text field<br>2. Enter “admin1” for the Password text field<br>3. Click on the Login Button |
| Expected Result | Project Admin will be directed to the admin landing page |
| Actual Result | Project Admin is directed to the admin landing page<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

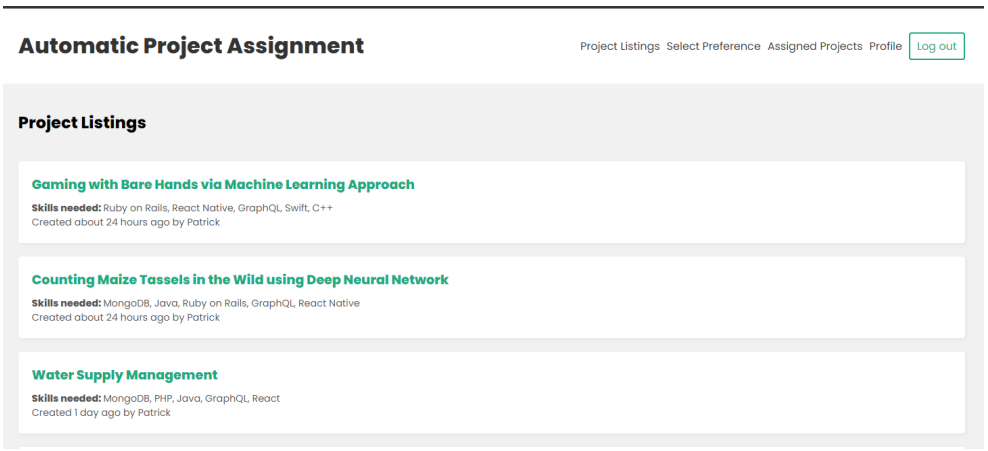
| 1-2 Project Admin Invalid Login Function | |
|---|---|
| Pre-Condition | 1. Account must be created by Super Admin<br>2. Account must either be of OBS or MSFT Type (e.g., admin1, admin3) |

| | |
|---|---|
| | 3. Project Admin must be able to access the website login page |
| Actions | 1. Enter “admin1@gmail.com” for the Email text field<br>2. Enter “admin2” for the Password text field<br>3. Click on the Login Button |
| Expected Result | “Invalid login credentials” error message will appear |
| Actual Result | “Invalid login credentials” error message appear   |
| Pass / Fail | Pass |
| Observation (if any) | - |

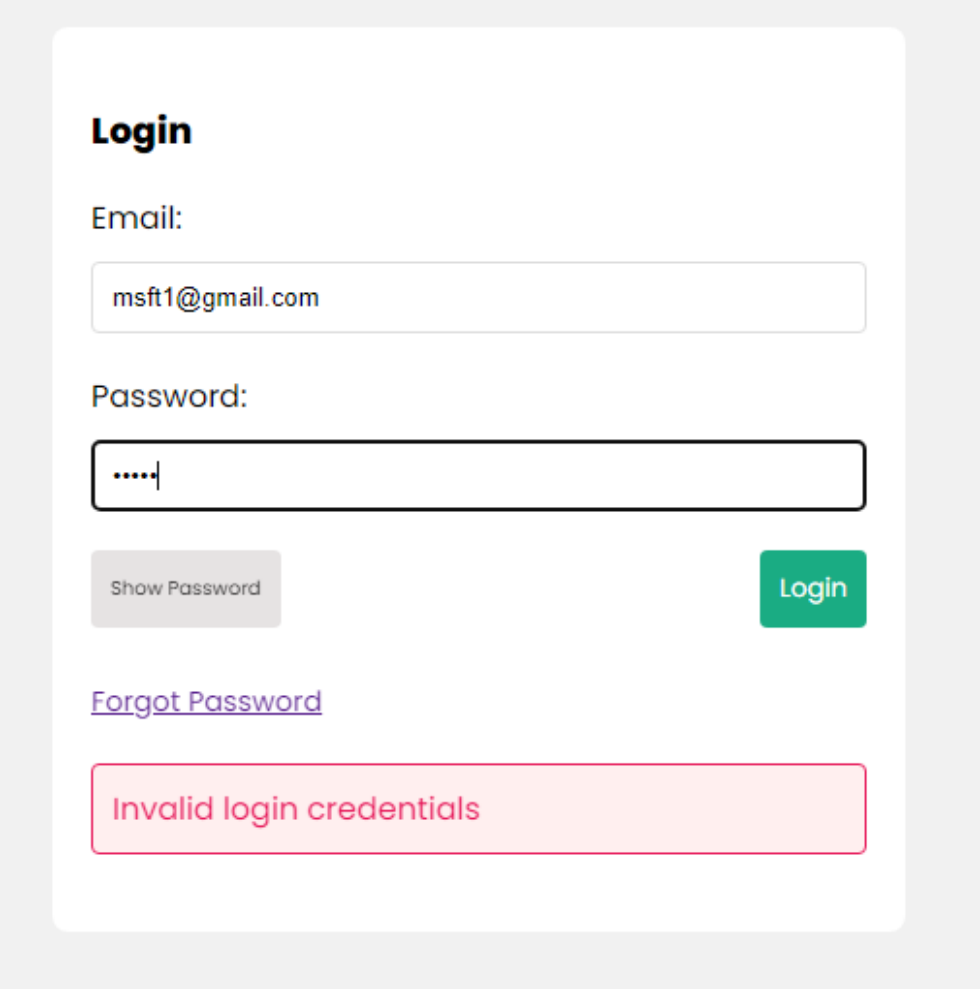
| |
|---|
| 1-3 Project Admin Logout Function |

| | |
|---|---|
| Pre-Condition | Project Admin must be logged into their account |
| Actions | 1. Click the logout button at the top right of the navigation bar |
| Expected Result | Project Admin will be directed to the login page |
| Actual Result | Project Admin is directed to the login page<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

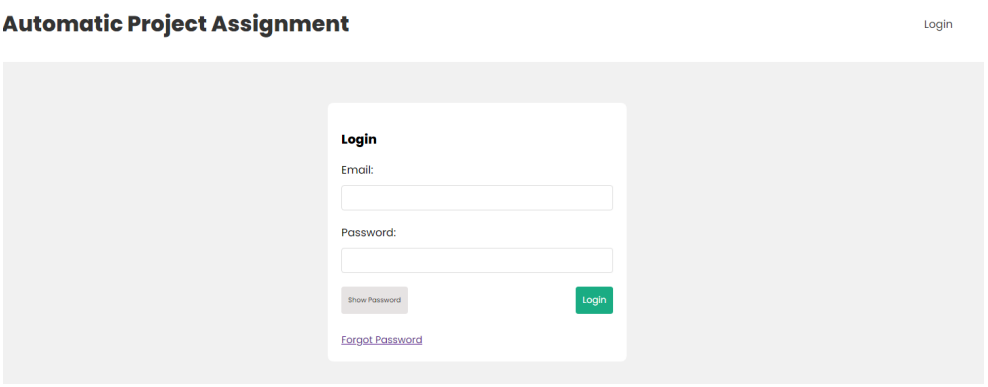
| 1-4 Employee Login Function | |
|---|---|
| Pre-Condition | 1. Account has to be created by Super Admin/Project Admin<br>2. Account must fall within organisation type (e.g MSFT - MSFT1-50@gmail.com)<br>3. The Employee must be able to access the website login page |
| Actions | 1. Enter “msft1@gmail.com” for the Email text field<br>2. Enter “mft1” for the Password text field<br>3. Click on the Login Button |
| Expected Result | Employee will be directed to the admin landing page |
| Actual Result | Employee is directed to the admin landing page |

| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

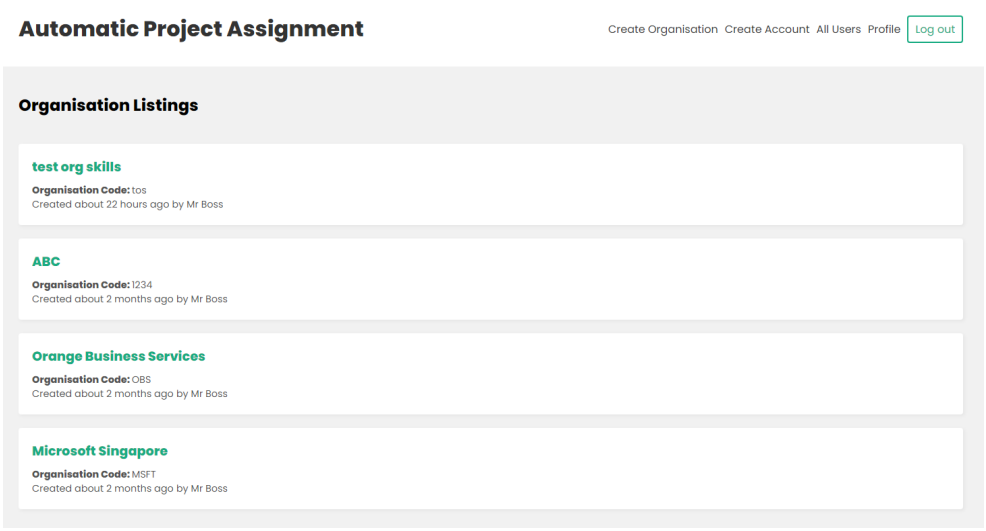
| 1-5 Employee Invalid Login Function | |
|---|---|
| Pre-Condition | 1. Account has to be created by Super Admin/Project Admin<br>2. Account must fall within organisation type (e.g MSFT - MSFT1-50@gmail.com)<br>3. The employee must be able to access the website login page |
| Actions | 1. Enter “msft1@gmail.com” for the Email text field<br>2. Enter “mft2” for the Password text field<br>3. Click on the Login Button |
| Expected Result | “Invalid login credentials” error message will appear |
| Actual Result | “Invalid login credentials” error message appear |

| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

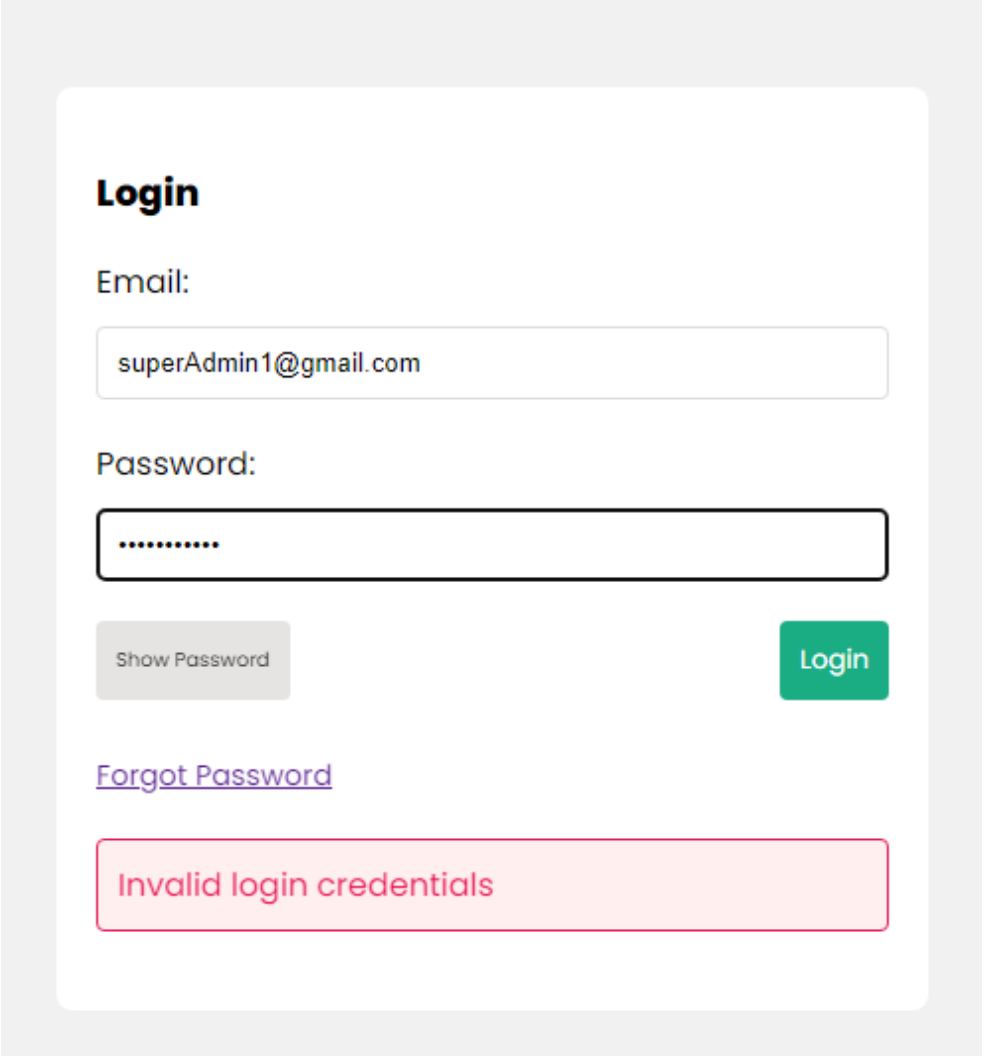
| 1-6 Employee Logout Function | |
|---|---|
| Pre-Condition | Employee must be logged into their account |
| Actions | 1. Click the logout button at the top right of the navigation bar |
| Expected Result | Employee will be directed to the login page |
| Actual Result | Employee is directed to the login page |

| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

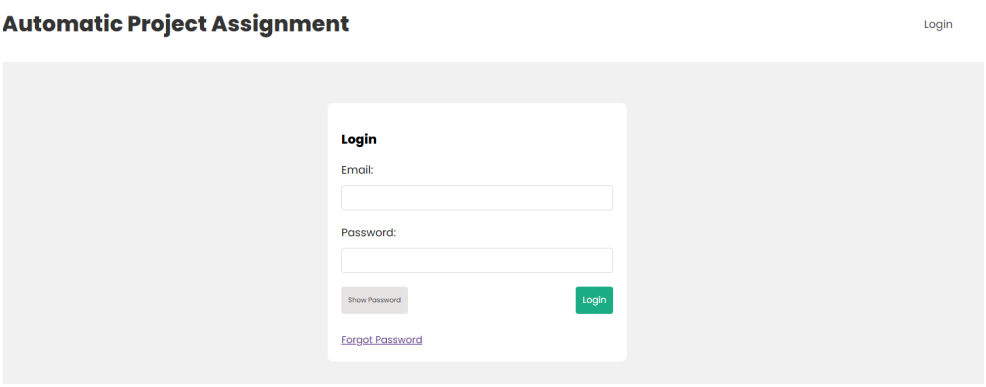
| 1-7 Super Admin Login Function | |
|---|---|
| Pre-Condition | 1. Account has to be created by ( not sure check w/ matt again)<br>2. Account must be ..<br>3. Super Admin must be able to access website login page |
| Actions | 1. Enter “superAdmin1@gmail.com” for the Email text field<br>2. Enter “superAdmin1” for the Password text field<br>3. Click on the Login Button |
| Expected Result | Super Admin will be directed to the admin landing page |
| Actual Result | Super Admin is directed to the admin landing page |

| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

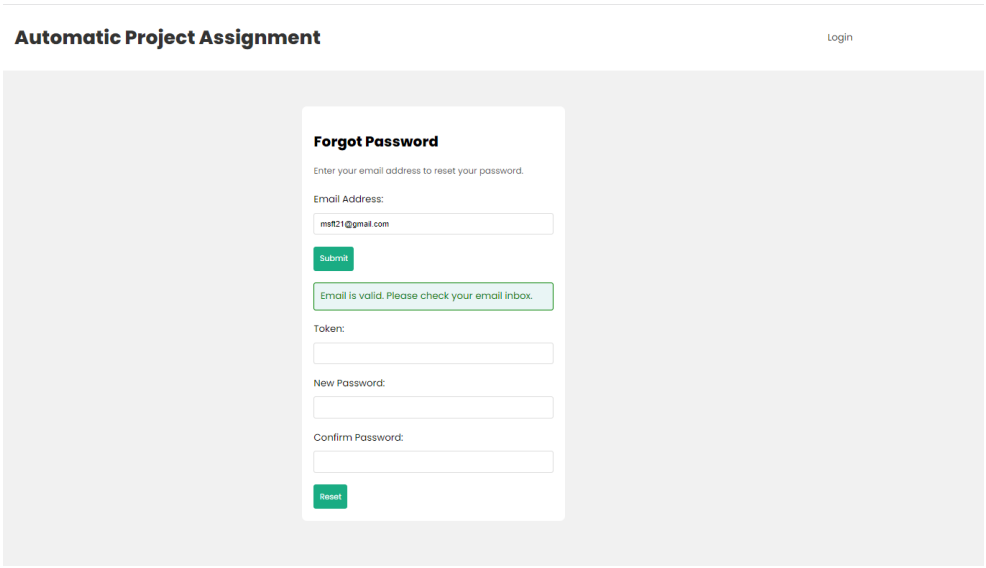
| 1-8 Super Admin Invalid Login Function | |
|---|---|
| Pre-Condition | 1. Account has to be created by ( not sure check w/ matt again)<br>2. Account must be ..<br>3. Super Admin must be able to access website login page |
| Actions | 1. Enter “superAdmin1@gmail.com” for the Email text field<br>2. Enter “superAdmin2” for the Password text field<br>3. Click on the Login Button |
| Expected Result | “Invalid login credentials” error message will appear |
| Actual Result | “Invalid login credentials” error message appear |

| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

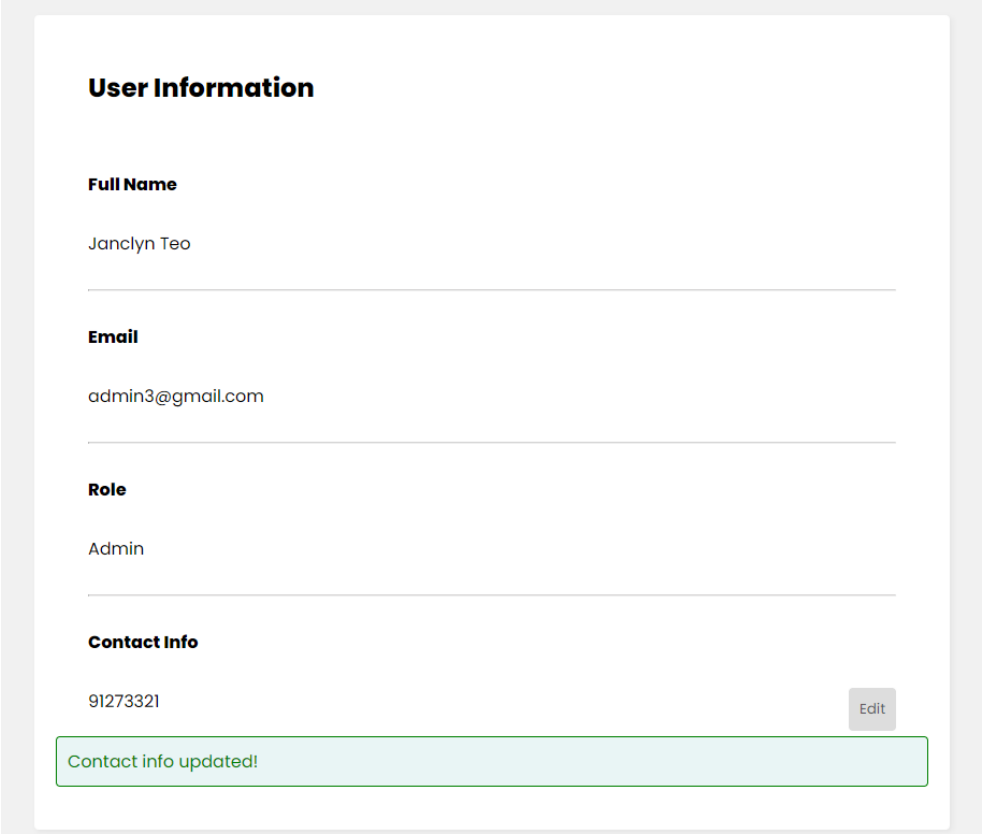
| 1-9 Super Admin Logout Function | |
|---|---|
| Pre-Condition | Super Admin must be logged into their account |
| Actions | 1. Click the logout button at the top right of the navigation bar |
| Expected Result | Super Admin will be directed to the login page |
| Actual Result | Super Admin is directed to the login page |

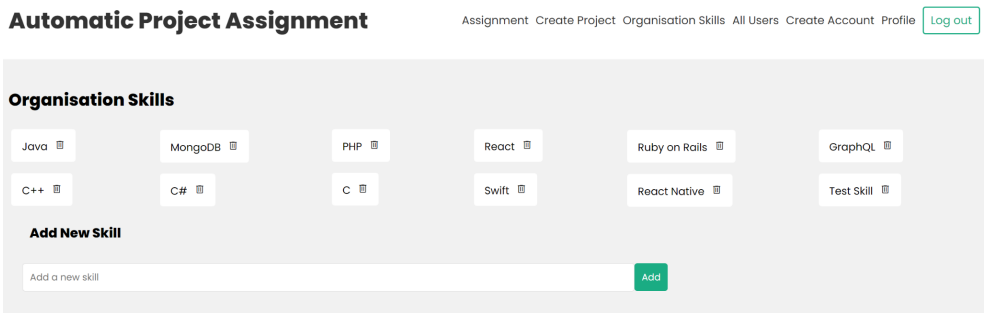
| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 1-10 Forgot Password Function | |
|---|---|
| Pre-Condition | There must be existing user accounts within the system |
| Actions | Click on “Forgot Password” button under “Show Password”<br>Enter Email Address of intended account<br>Click on “Submit” button |
| Expected Result | Reset Password Email will be mailed to the entered email address and the message “Email is valid. Please check your email inbox” will be displayed |
| Actual Result | Reset Password Email is mailed to the entered email address and the message “Email is valid. Please check your email inbox” is displayed |

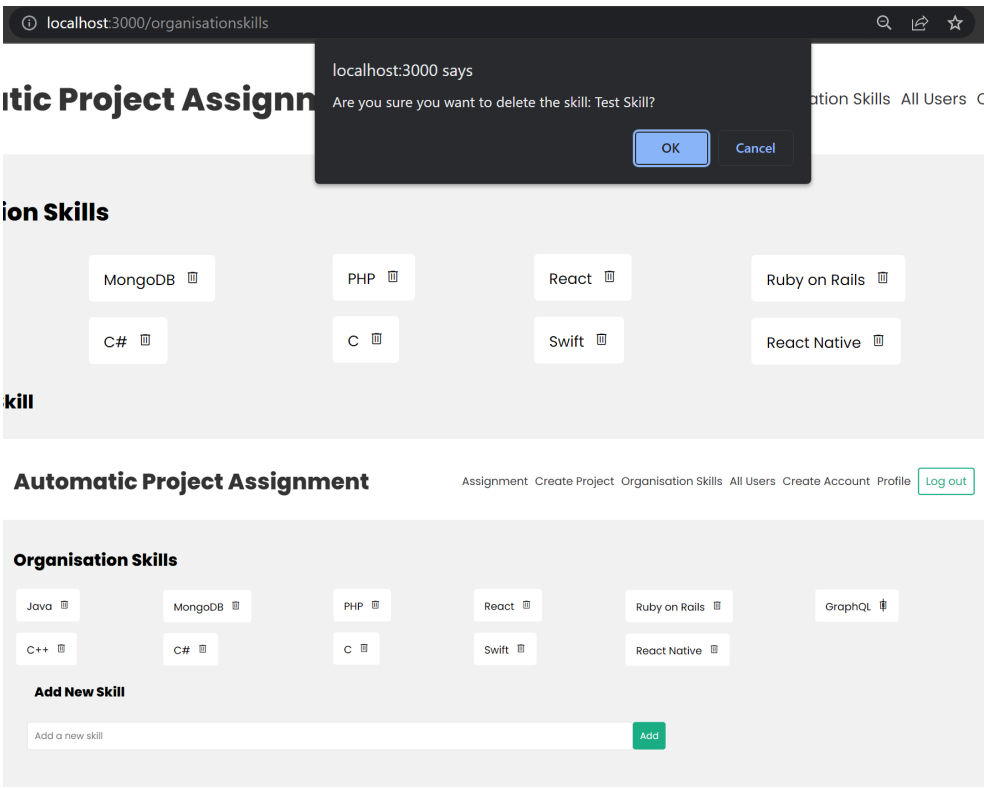
| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

### 6.2 Project Admin

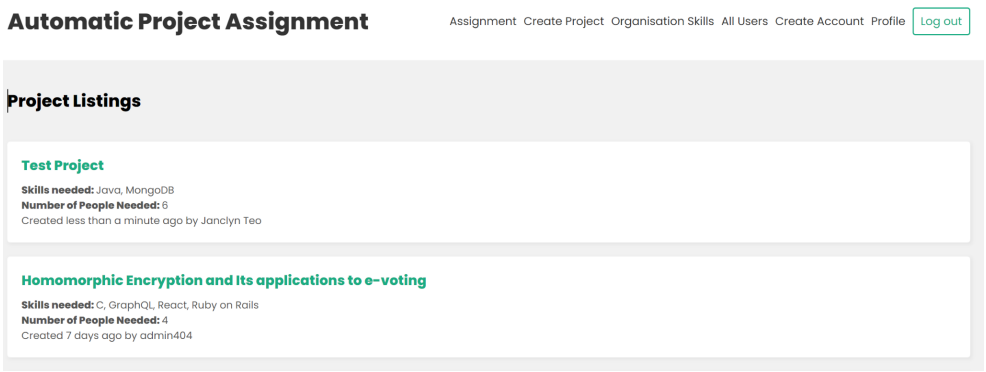
| 2-1 Test for Update Contact Details as Project Admin | |
|---|---|
| Pre-Condition | 1. User must be logged in as Project Admin |
| Actions | 1. Project Admin click on “Profile” from navigation bar<br>2. Click on the “Edit” Button<br>3. Enter “91273321” for the New Contact Information text field<br>4. Click on the “Submit” Button |
| Expected Result | Contact info is successfully updated |
| Actual Result | Contact info is updated!<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 2-2 Test for Project Admin Create Organisation Skill | |
|---|---|
| Pre-Condition | 1. User must be logged in as Project Admin |
| Actions | 1. Project Admin click on “Organisation Skill” from navigation bar<br>2. Enter “Test Skill” for the Add a new skill text field<br>3. Click on the “Add” Button |
| Expected Result | Skill will be added into the list of skills |
| Actual Result | Skill added into the list of skills<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

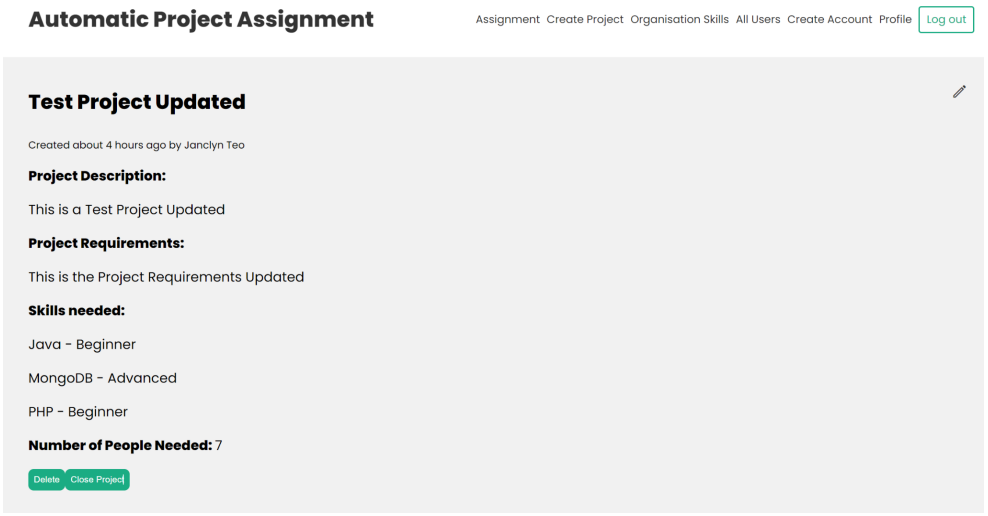
| 2-3 Test for Project Admin Delete Organisation Skill | |
|---|---|
| Pre-Condition | 1. User must be logged in as Project Admin |
| Actions | 1. Project Admin click on “Organisation Skills” from navigation bar<br>2. Click on the “Dustbin” Icon beside “Test Skill”<br>3. Click on “Ok” from popout prompting for confirmation of deletion |
| Expected Result | Skill will be removed from the list of skills |
| Actual Result | Skill removed from the list of skills |

| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

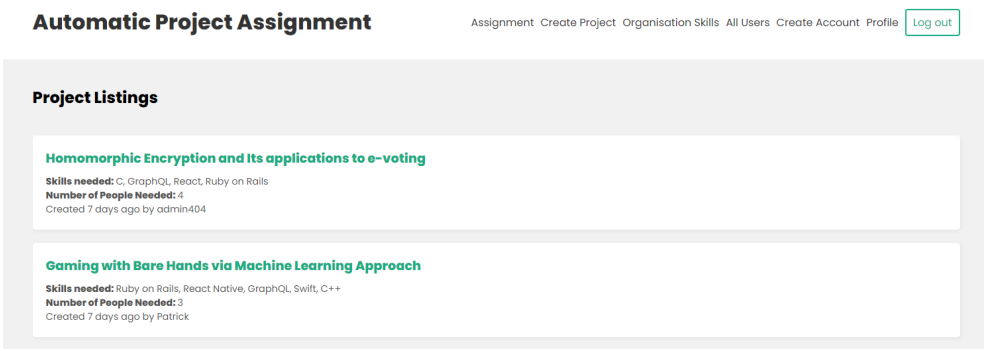
| 2-4 Test for Project Admin Create Project | |
|---|---|
| Pre-Condition | 1. User must be logged in as Project Admin |
| Actions | 1. Project Admin click on “Create Project” from navigation bar<br>2. Enter “Test Project” for the Project Title text field<br>3. Enter “This is a Test Project” for the Project Description field<br>4. Enter “This is the Project Requirements” for the Project Requirements text field<br>5. Click on the “Add Skills” Button<br>6. Select “Java” for Please select a Skill dropdown list<br>7. Select “Beginner” for Please select a competency level dropdown list<br>8. Repeat Step 5<br>9. Select “MongoDB” for Please select a Skill dropdown list |

| | |
|---|---|
| | 10. Select “Beginner” for Please select a competency level dropdown list<br>11. Enter “6” for Number of People text field<br>12. Click on the “Add New Project Listing” Button |
| Expected Result | Project Admin will be redirected to the main landing/project listing page with new project listing at the top |
| Actual Result | Project Admin is redirected to the main landing/project listing page with new project listing at the top<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

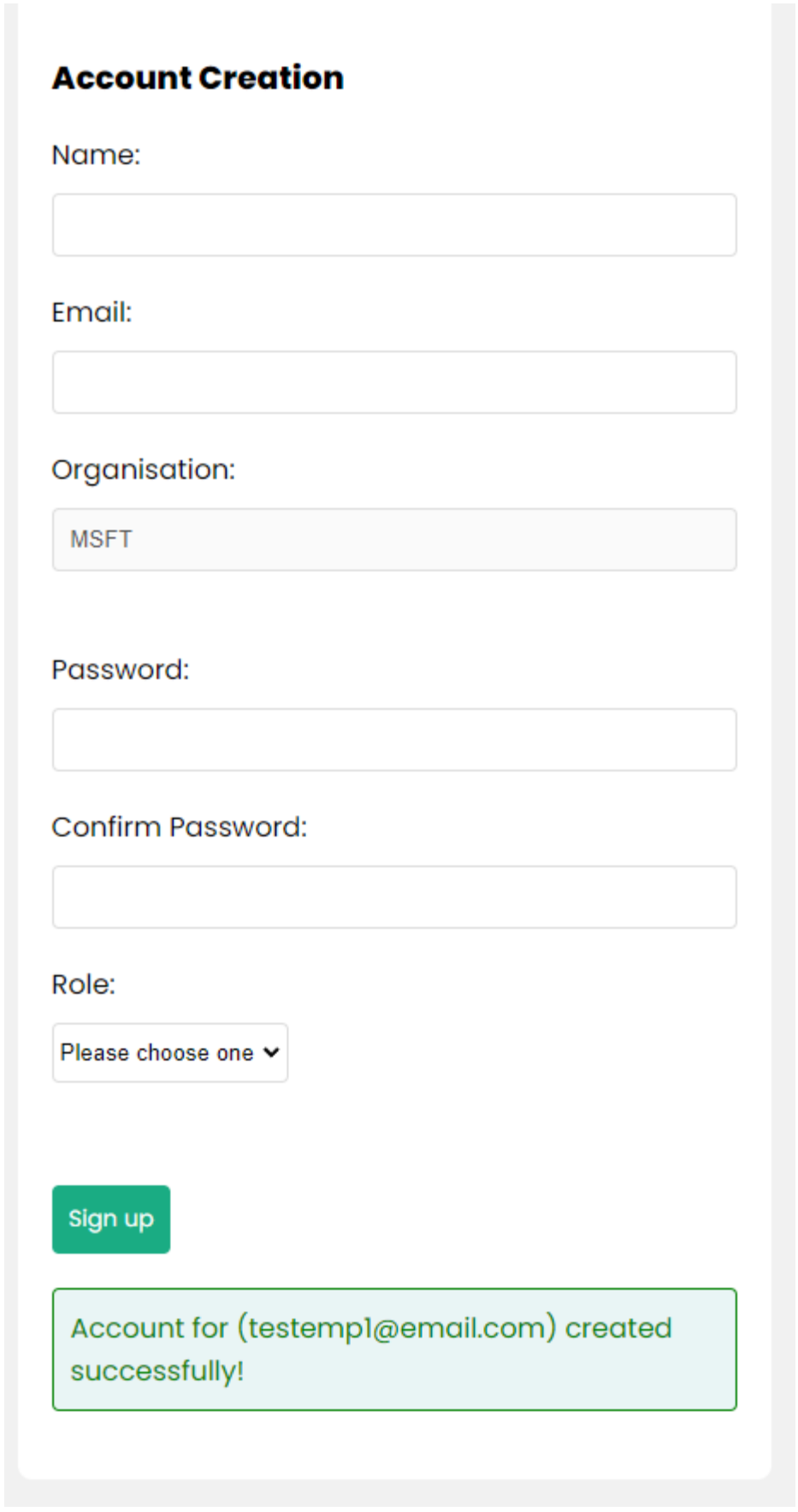
| 2-5 Test for Project Admin Update Project Details | |
|---|---|
| Pre-Condition | 1. User must be logged in as Project Admin<br>2. User must be at Project Listing Page<br>3. The chosen Project Listing must exist |
| Actions | 1. Project Admin click on “Test Project” from project listings<br>2. Click on the “Pencil” icon on the top right to edit project listing<br>3. Enter “Test Project Updated” for the Project Titlefield<br>4. Enter “This is a Test Project Updated” for the Project Description field<br>5. Enter “This is the Project Requirements Updated” for the Project Requirements text field<br>6. Click on the “Add Skills” Button<br>7. Select “PHP” for Please select a Skill dropdown list |

| | |
|---|---|
| | 8. Select “Beginner” for Please select a competency level dropdown list<br>9. Select “Advanced” for Please select a competency level dropdown list of MongoDB<br>10. Enter “7” for the Number of People text field<br>11. Click on the “Edit Project Listing” Button |
| Expected Result | Project Admin will be redirected to the project listing page with updated details |
| Actual Result | Project Admin is redirected to the project listing page with updated details<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 2-6 Test for Project Admin to Remove Project | |
|---|---|
| Pre-Condition | 1. User must be logged in as Project Admin<br>2. User must be at Project Listing Page<br>3. The chosen Project Listing must exist |
| Actions | 1. Project Admin clicks on “Test Project” from project listings<br>2. Click on the “Delete” button |
| Expected Result | Project removed and redirect the user back to Project Listing Page |

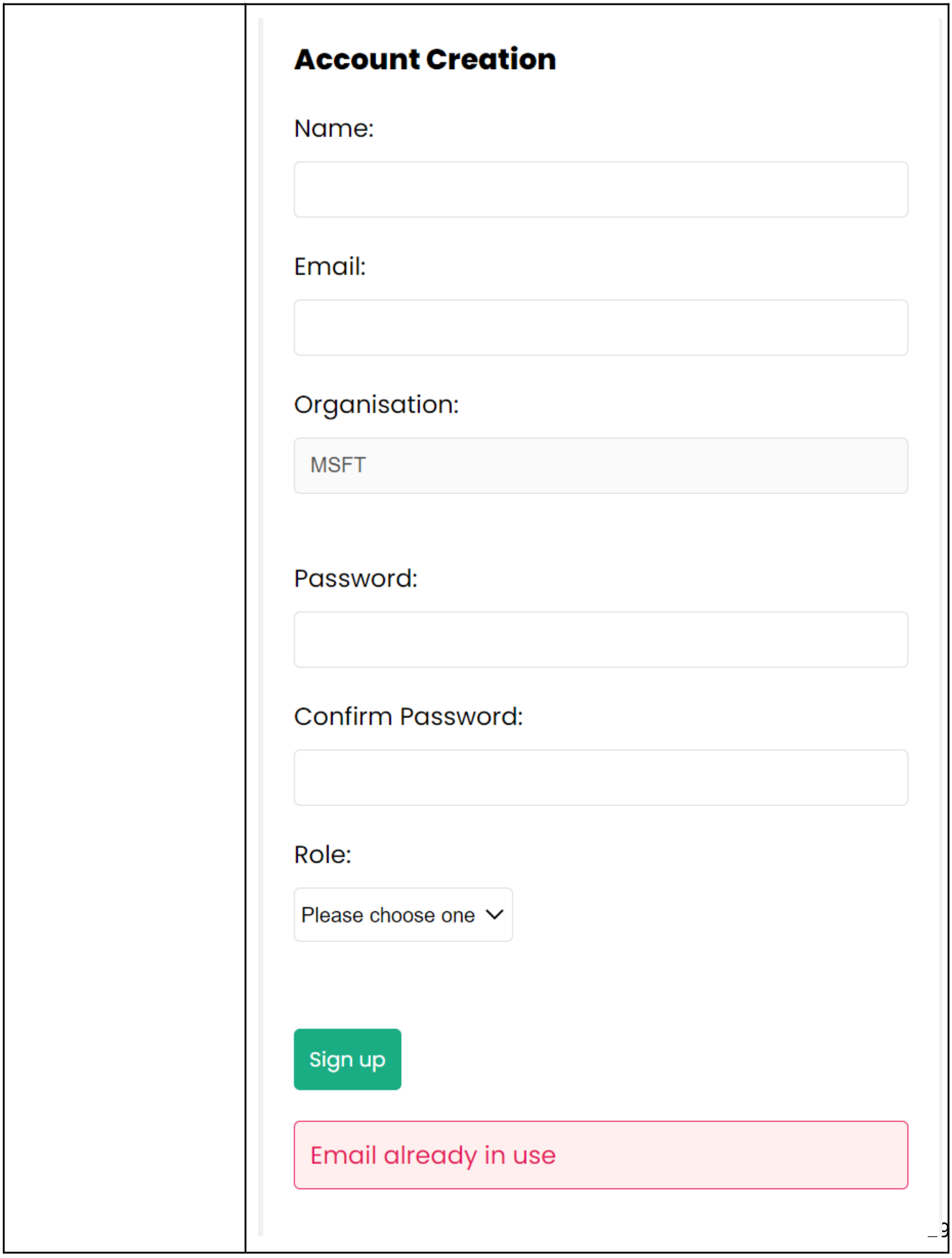
| | |
|---|---|
| Actual Result | Project removed and redirect user back to Project Listing Page<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 2-7 Test for Project Admin Create Employee Account | |
|---|---|
| Pre-Condition | 1. The user must be logged in as Project Admin |
| Actions | 1. Project Admin click on “Create Account” from the navigation bar<br>2. Enter “testemp1” for the Name text field<br>3. Enter “testemp1@gmail.com” for the Email text field<br>4. Enter “testemp1” for the Password text field<br>5. Enter “testemp1” for the Confirm Password text field<br>6. Select “Employee” for the Role dropdown list<br>7. Click on the “Sign Up” Button |
| Expected Result | “Account created successfully!” success message will appear |
| Actual Result | “Account for (testemp1@email.com) created successfully!” message appear |


Account Creation
Name:
Email:
Organisation:
MSFT
Password:
Confirm Password:
Role:
Please choose one
Sign up
Account for (testemp1@email.com) created successfully!

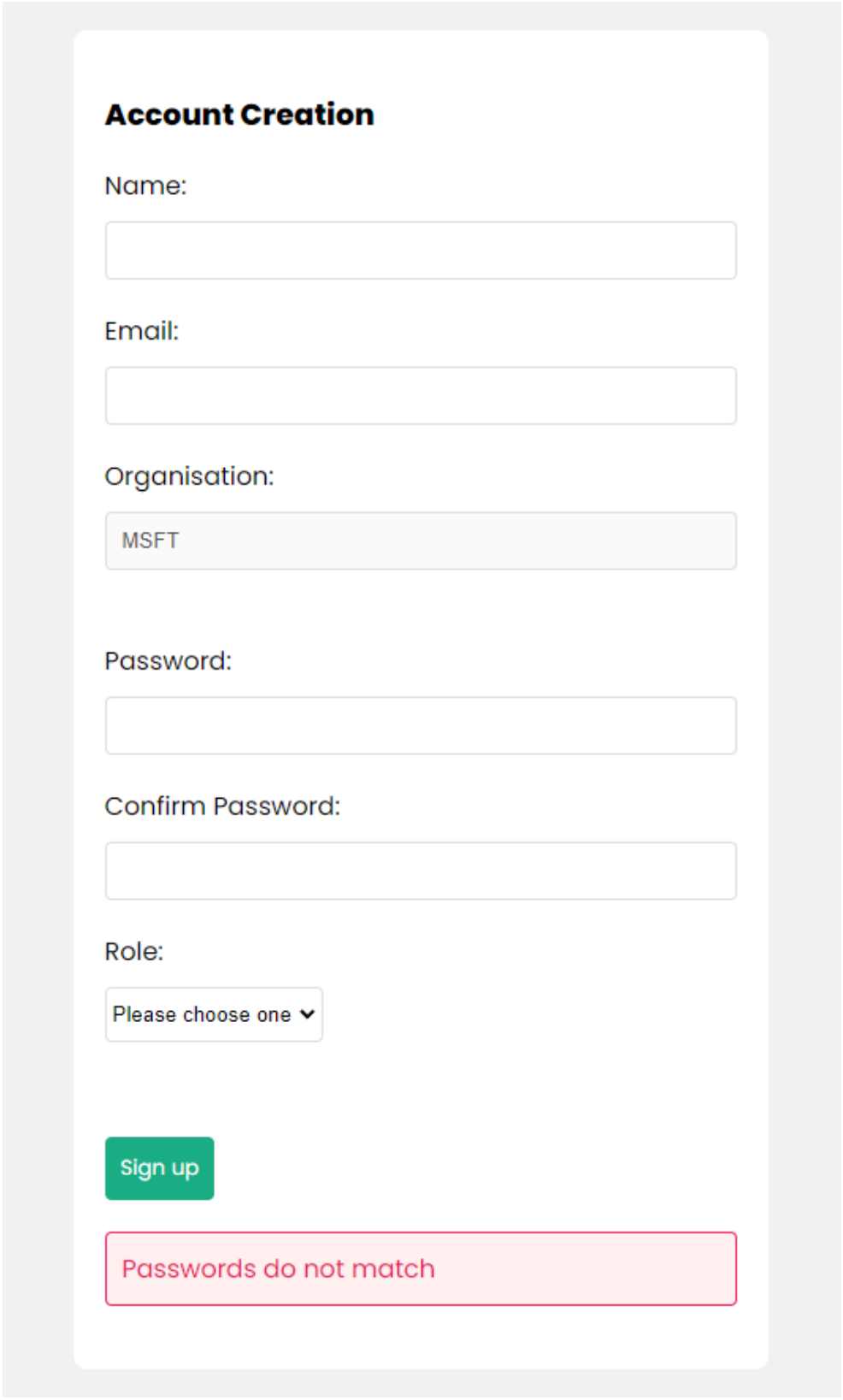
| | |
|---|---|
| Pass / Fail | Pass |
| Observation (if any) | - |

| 2-8 Test for Project Admin Create Existing Employee Account | |
|---|---|
| Pre-Condition | 1. The user must be logged in as Project Admin<br>2. An Account Using the Same Email must exist |
| Actions | 1. Project Admin click on “Create Account” from the navigation bar<br>2. Enter “testemp1” for the Name text field<br>3. Enter “testemp1@gmail.com” for the Email text field<br>4. Enter “testemp1” for the Password text field<br>5. Enter “testemp1” for the Confirm Password text field<br>6. Select “Employee” for the Role dropdown list<br>7. Click on the “Sign Up” Button |
| Expected Result | “Account already exists” error message will appear |
| Actual Result | “Email already in use” error message appear |

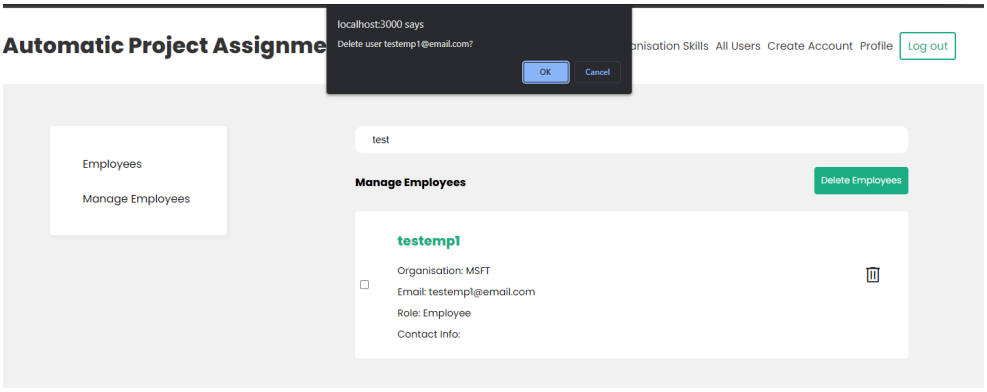

Account Creation
Name:
Email:
Organisation:
MSFT
Password:
Confirm Password:
Role:
Please choose one
Sign up
Email already in use

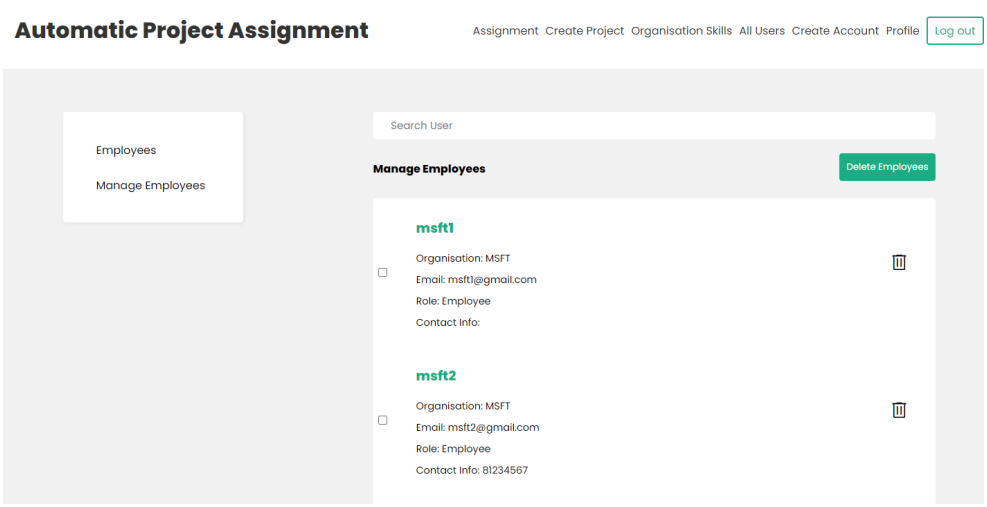
| | |
|---|---|
| Pass / Fail | Pass |
| Observation (if any) | - |

| 2-9 Test for Project Admin Create Account with no matching password | |
|---|---|
| Pre-Condition | 1. The user must be logged in as Project Admin<br>2. An Account Using the Same Email must exist |
| Actions | 1. Project Admin click on “Create Account” from the navigation bar<br>2. Enter “testemp1” for the Name text field<br>3. Enter “testemp1@gmail.com” for the Email text field<br>4. Enter “testemp2” for the Password text field<br>5. Enter “testemp3” for the Confirm Password text field<br>6. Select “Employee” for the Role dropdown list<br>7. Click on the “Sign Up” Button |
| Expected Result | “Passwords do not match” error message will appear |
| Actual Result | “Passwords do not match” error message appear |

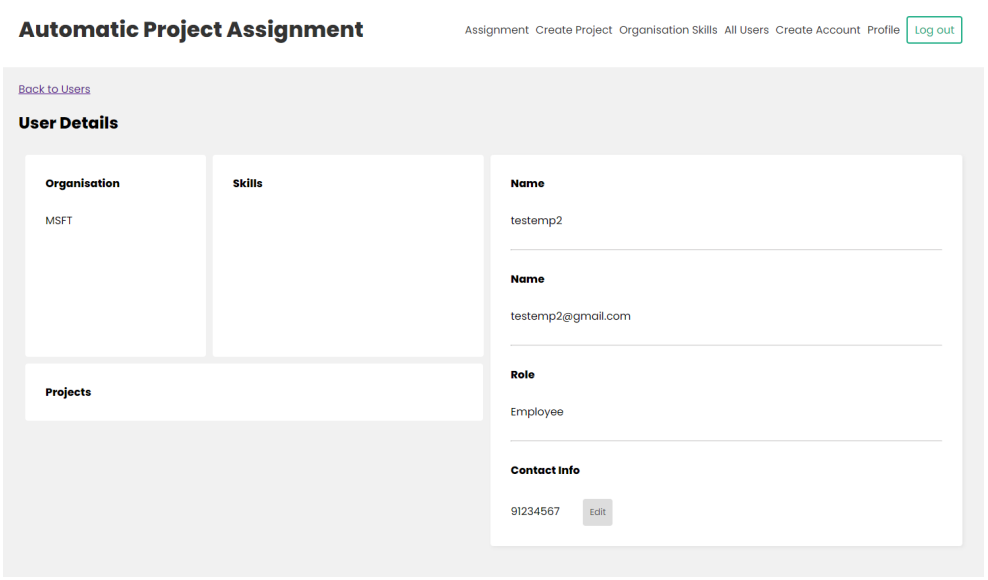

Account Creation
Name:
Email:
Organisation:
MSFT
Password:
Confirm Password:
Role:
Please choose one
Sign up
Passwords do not match

| | |
|---|---|
| Pass / Fail | Pass |
| Observation (if any) | - |

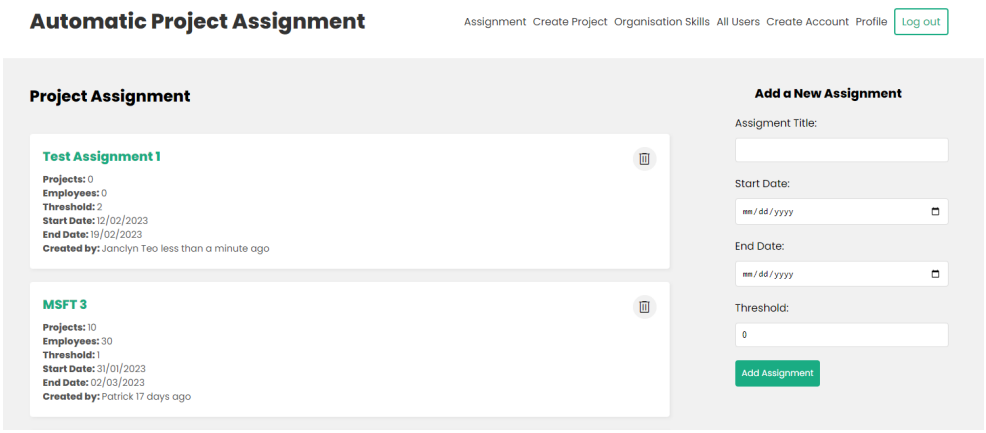
| 2-10 Test for Project Admin Delete Employee Account | |
|---|---|
| Pre-Condition | 1. The user must be logged in as Project Admin<br>2. The chosen Employee account must exist |
| Actions | 1. Project Admin clicks on “All Users” from nthe avigation bar<br>2. Click on “Manage Employees” on the side navigation bar<br>3. Clicks on the “Dustbin” icon beside testemp1<br>4. Click on “Ok” from the pop-out window prompting for confirmation of deletion |
| Expected Result | Account will be deleted and refreshed back to All Users Page |
| Actual Result | Account deleted and refreshed back to All Users Page<br>  |

| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

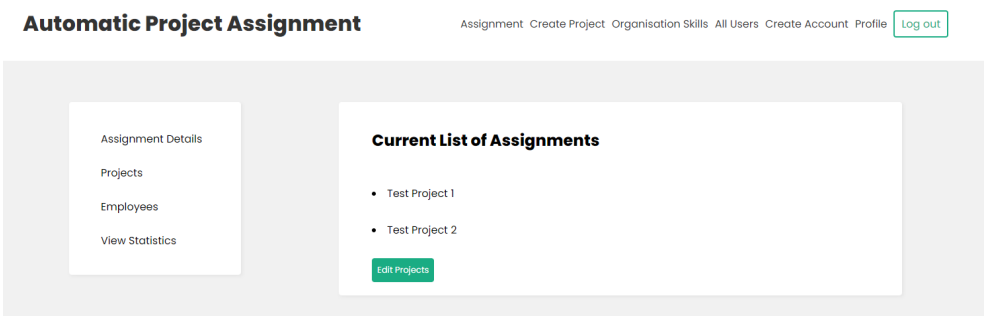
| 2-11 Test for Project Admin Edit Employee Account Contact Info | |
|---|---|
| Pre-Condition | 1. The user must be logged in as Project Admin<br>2. The chosen Employee account must exist |
| Actions | 1. Project Admin clicks on “All Users” from the navigation bar<br>2. Click on “testemp2” from the user listings<br>3. Click on the “Edit” button below Contact Info<br>4. Enter “91234567” into the text field<br>5. Click on the “Save” button |
| Expected Result | Contact Info will be updated and the page will be refreshed |
| Actual Result | Contact Info updated and the page is refreshed with new contact information |

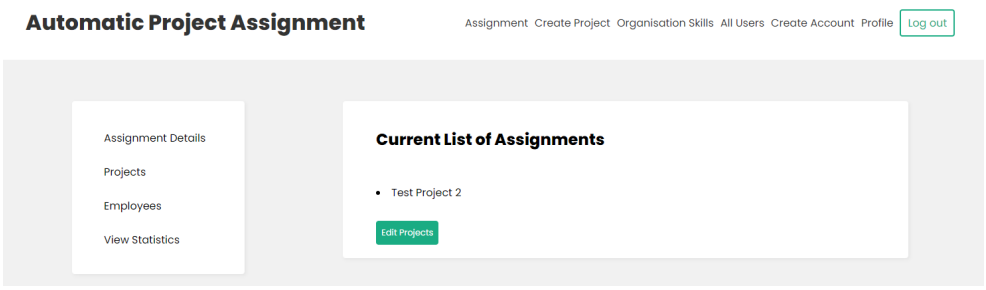
| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 2-12 Test for Project Admin Create Assignments | |
|---|---|
| Pre-Condition | 1. The user must be logged in as Project Admin |
| Actions | 1. Project Admin clicks on “Assignment” from the navigation bar<br>2. Enter “Test Assignment 1” into the Assignment Title text field<br>3. Select “12 Feb 2023” for Start Date Field<br>4. Select “19 Feb 2023” for End Date Field<br>5. Enter “2” for the threshold text field<br>6. Click on the “Save” button |
| Expected Result | Assignment will be created and the page will be refreshed |
| Actual Result | Assignment created and page is refreshed with new assignment information |

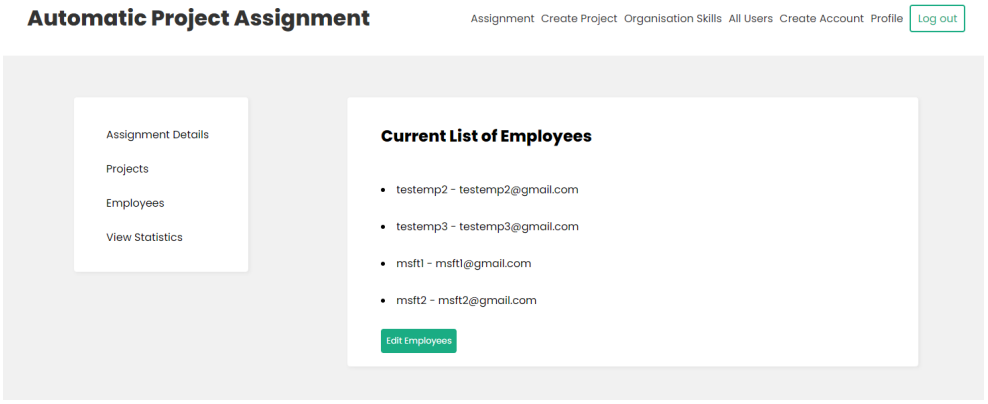
| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

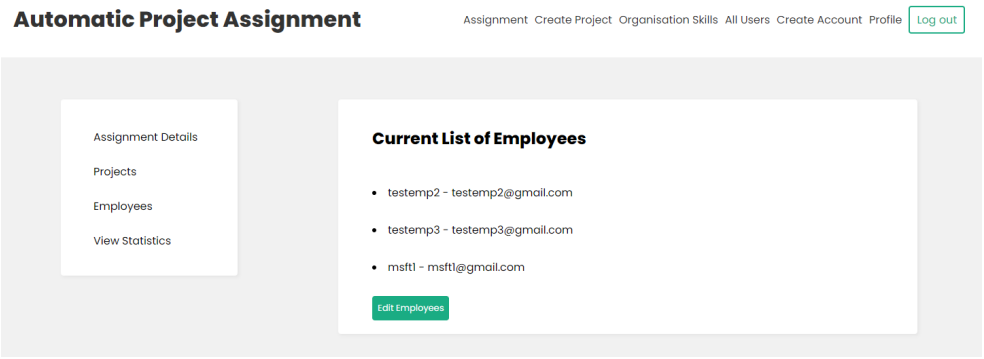
| 2-13 Test for Project Admin Add Projects into Assignment | |
|---|---|
| Pre-Condition | 1. The user must be logged in as Project Admin<br>2. The chosen Assignment must exist |
| Actions | 1. Project Admin clicks on “Assignment” from the navigation bar<br>2. Click on “Test Assignment 1” from Assignment Listing\<br>3. Project Admin clicks on the “Update Assignment Status” button if the Status is Inactive<br>4. Click on “Projects” on the side navigation bar<br>5. Click on the “Edit Projects” button<br>6. Select “Test Project 1” from the Select a Project Dropdown list<br>7. Select “Test Project 2” from the Select a Project Dropdown list<br>8. Click on the “Submit” button |
| Expected Result | Projects will be added to the assignment and the page will be refreshed |
| Actual Result | Projects be added into assignment and page refreshed |

| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

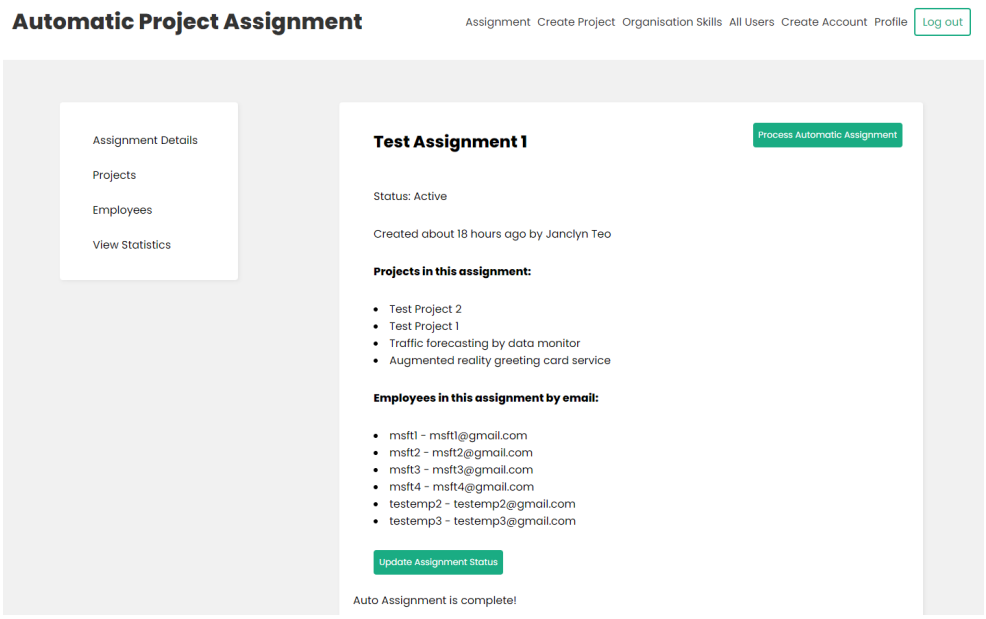
| 2-14 Test for Project Admin Remove Projects from Assignment | |
|---|---|
| Pre-Condition | 1. User must be logged in as Project Admin<br>2. The chosen Assignment must exist |
| Actions | 1. Project Admin clicks on “Assignment” from navigation bar<br>2. Click on “Test Assignment 1” from the Assignment Listing<br>3. Project Admin click on “Update Assignment Status” button if Status is Inactive<br>4. Click on “Projects” on the side navigation bar<br>5. Click on “Edit Projects” button<br>6. Select “Dustbin” Icon beside “Test Project 1”<br>7. Click on “Submit” button |
| Expected Result | Project will be removed from assignment and page will be refreshed |
| Actual Result | Project removed from assignment and page refreshed<br>  |
| Pass / Fail | Pass |

| | |
|---|---|
| Observation (if any) | - |

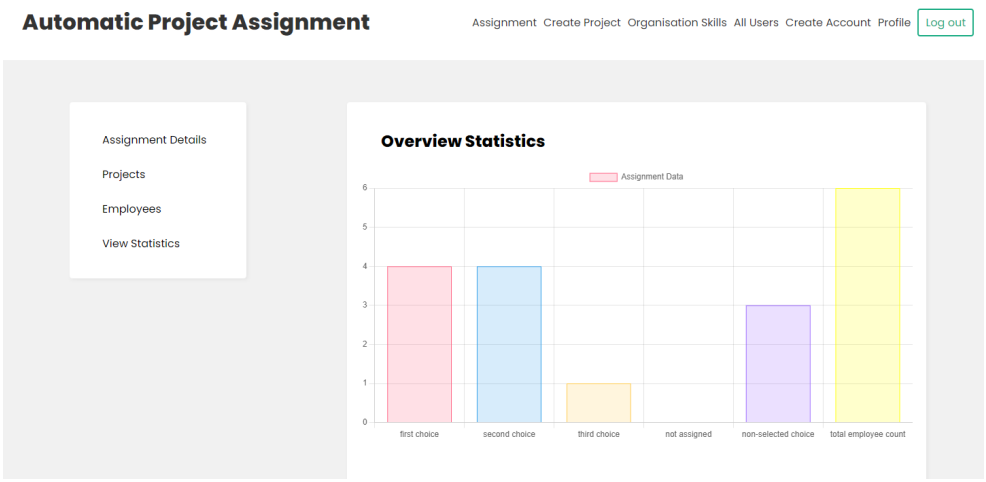
| 2-15 Test for Project Admin Adding Employees into Assignment | |
|---|---|
| Pre-Condition | 1. User must be logged in as Project Admin<br>2. The chosen Assignment must exist |
| Actions | 1. Project Admin clicks on “Assignment” from the navigation bar<br>2. Click on “Test Assignment 1” from Assignment Listings.<br>3. Project Admin click on the “Update Assignment Status” button if the Status is Inactive<br>4. Click on “Employees” on the side navigation bar<br>5. Click on “Edit Employees” button<br>6. Select “testemp2” from the Select an Employee Dropdown list<br>7. Select “testemp3” from the Select an Employee Dropdown list<br>8. Select “msft1” from the Select an Employee Dropdown list<br>9. Select “msft2” from the Select an Employee Dropdown list<br>10. Click on the “Submit” button |
| Expected Result | Employees will be added into assignment and the page will be refreshed |
| Actual Result | Employees added into assignment and page is refreshed<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 2-16 Test for Project Admin Remove Employees from Assignment | |
|---|---|
| Pre-Condition | 1. The user must be logged in as Project Admin<br>2. The chosen Assignment must exist |
| Actions | 1. Project Admin clicks on “Assignment” from the navigation bar<br>2. Click on “Test Assignment 1” from Assignment Listing<br>3. Project Admin clicks on the “Update Assignment Status” button if the Status is Inactive<br>4. Click on “Employees” on the side navigation bar<br>5. Click on the “Edit Employees” button<br>6. Select the “Dustbin” Icon beside “msft2@gmail.com”<br>7. Click on the “Submit” button |
| Expected Result | Employee will be removed from the assignment and the page will be refreshed |
| Actual Result | Employee removed from assignment and is page refreshed<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

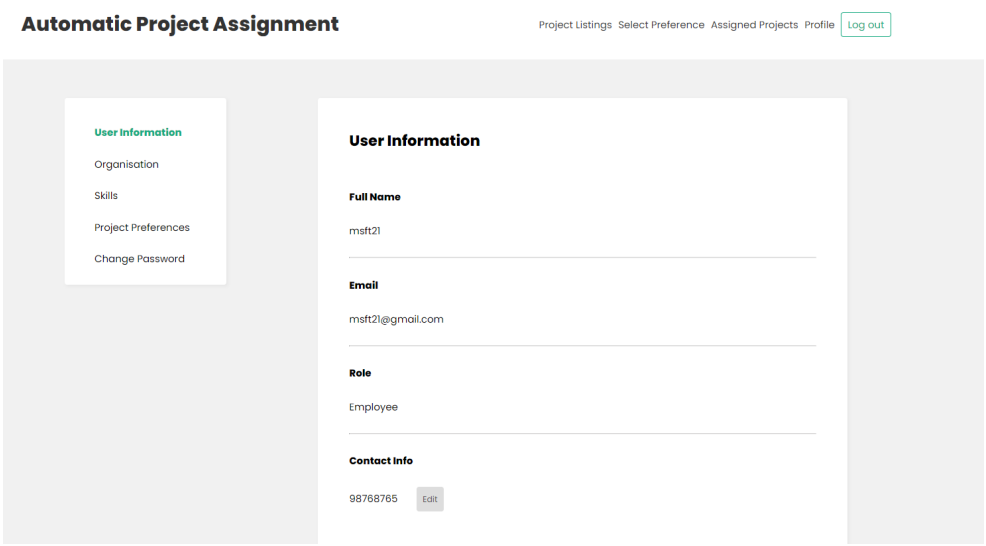
| 2-17 Test for Project Admin Process Automatic Assignment | |
|---|---|
| Pre-Condition | 1. User must be logged in as Project Admin<br>2. The chosen Assignment must exist |

| | |
|---|---|
| | 3. Projects must be added to Assignment<br>4. Employees must be added to Assignment |
| Actions | 1. Project Admin clicks on “Assignment” from the navigation bar<br>2. Click on “Test Assignment 1” from Assignment Listing<br>3. Project Admin clicks on the “Update Assignment Status” button if the Status is Inactive<br>4. Click on the “Process Automatic Assignment” button |
| Expected Result | “Auto Assignment is completed!” success message |
| Actual Result | “Auto Assignment is complete!” message is displayed.<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

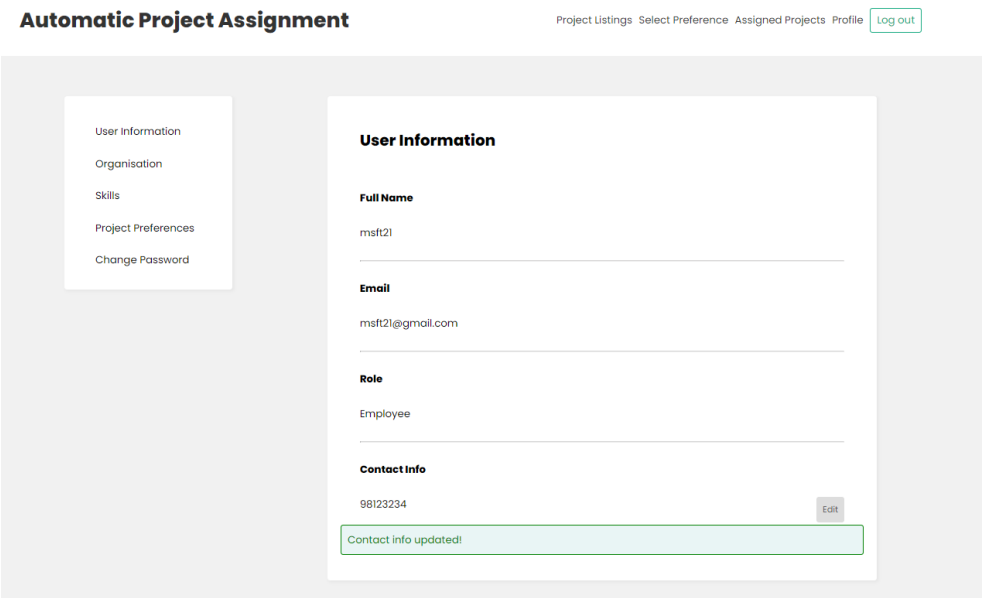
| 2-18 Test for Project Admin View Assignment Statistics | |
|---|---|
| Pre-Condition | 1. User must be logged in as Project Admin<br>2. The chosen Assignment must exist<br>3. Projects must be added to Assignment<br>4. Employees must be added to Assignment<br>5. The assignment must be processed already |

| | |
|---|---|
| Actions | 1. Project Admin clicks on “Assignment” from the navigation bar<br>2. Click on “Test Assignment 1” from Assignment Listing<br>3. Click on “View Statistics” from the side navigation bar |
| Expected Result | Statistic results of the assignment process will show |
| Actual Result | Statistic results of the assignment process is shown   |
| Pass / Fail | Pass |
| Observation (if any) | - |

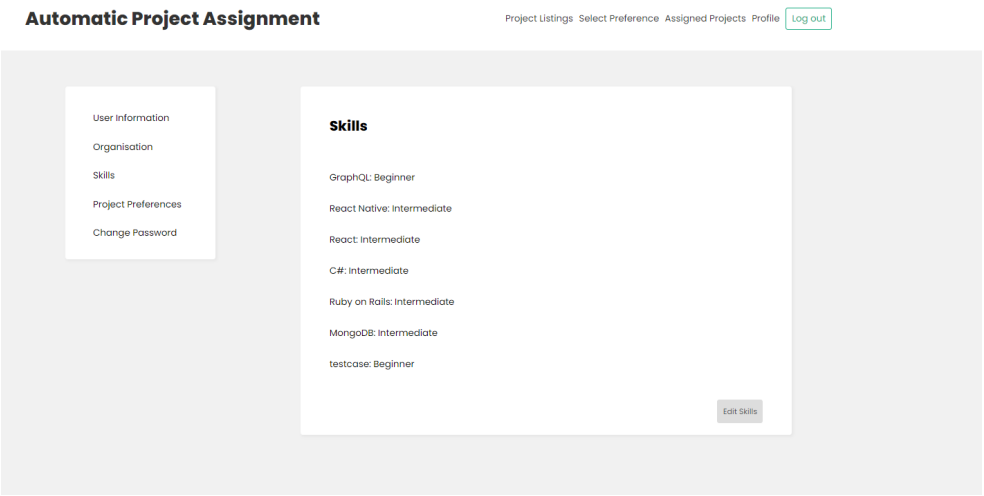
### 6.3 Employee

| 3-1 View account information as Employee | |
|---|---|
| Pre-Condition | Employee must be logged into their account |
| Actions | 1. Click on “Profile” on the navigation bar<br>2. Click on “User Information” on the left navigation bar |
| Expected Result | Employee is able to view their account information |
| Actual Result | Employee’s account information is displayed<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

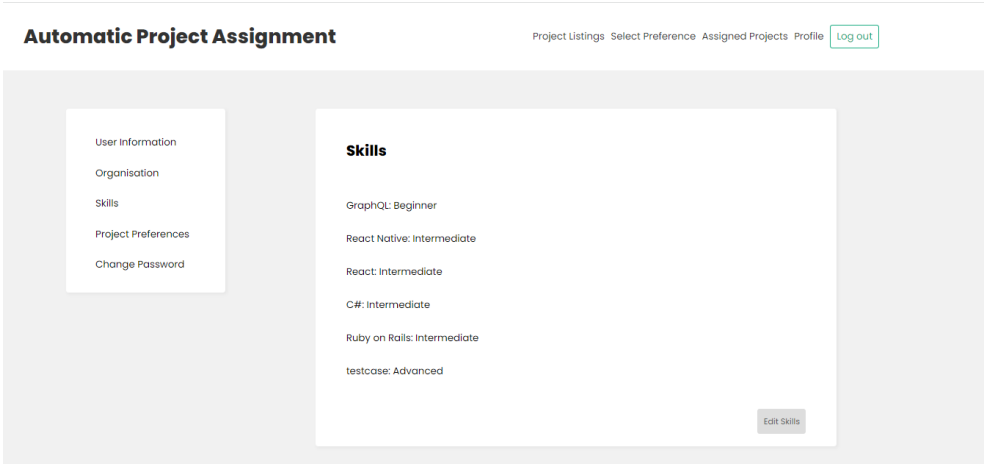
| 3-2 Update account information as Employee | |
|---|---|
| Pre-Condition | Employee must be logged into their account |
| Actions | 1. Click on “Profile” on the navigation bar<br>2. Click on “User Information” on the left navigation bar<br>3. Click on the “Edit” button beside Contact Info<br>4. Enter contact details on the empty text field<br>5. Click on the “Submit” button |

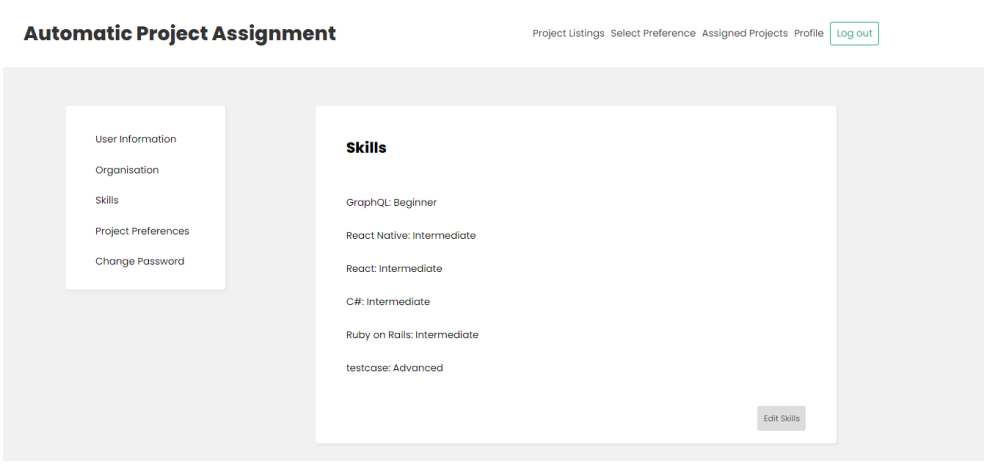
| | |
|---|---|
| Expected Result | Contact Info is successfully edited and the message “ Contact Info Updated!” is displayed |
| Actual Result | Updated contact info is saved and the message is displayed   |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 3-3 Add skills and competency details as Employee | |
|---|---|
| Pre-Condition | Employee must be logged into their account |
| Actions | 1. Click on “Profile” on the navigation bar<br>2. Click on “Skills” on the left navigation bar<br>3. Click on the “Edit Skills” button<br>4. Select a skill to be added using the dropdown list under add new skill<br>5. Select the competency level by using the dropdown list beside the newly added skill<br>6. Repeat steps 4-5 as many times as needed<br>7. Click on the “Submit” button when finished |
| Expected Result | Page returns to the skills page with newly added skills and competency |

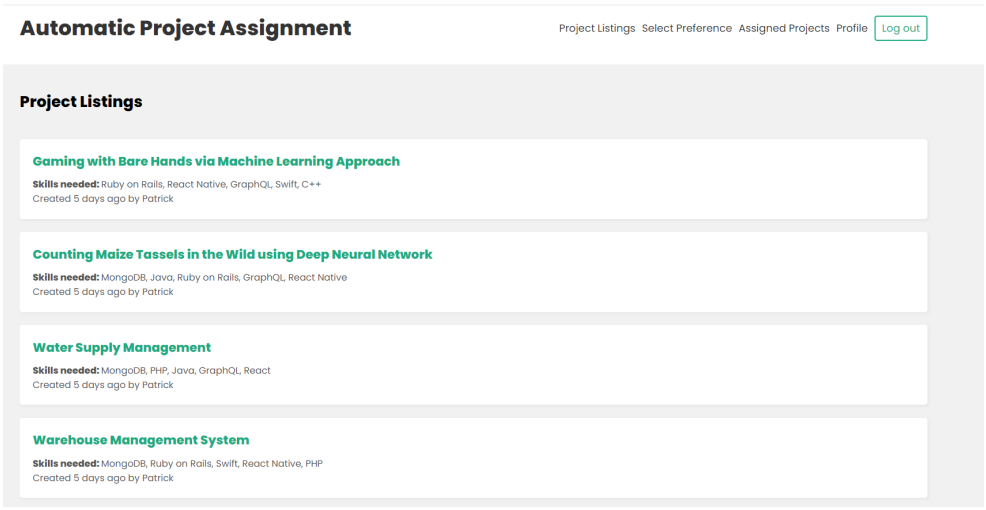
| | |
|---|---|
| Actual Result | "Skills" page is updated with new skills and competency<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 3-4 Update skills and competency details as Employee | |
|---|---|
| Pre-Condition | Employee must be logged into their account |
| Actions | <u>Delete Skills</u><br>1. Click on "Profile" on the navigation bar<br>2. Click on "Skills" on the left navigation bar<br>3. Click on the "Edit Skills" button<br>4. Click on the trash bin icon beside the skill you wish to delete<br>5. Repeat step 4 as many times as needed<br>6. Click on the "Submit" button when finished<br><br><u>Update Skill Competency</u><br>1. Click on "Profile" on the navigation bar<br>2. Click on "Skills" on the left navigation bar<br>3. Click on the "Edit Skills" button<br>4. Edit the competency level by using the dropdown list beside the skill you wish to update<br>5. Repeat step 4 as many times as needed<br>6. Click on the "Submit" button when finished |
| Expected Result | Page returns to the skills page with newly updated skills and |

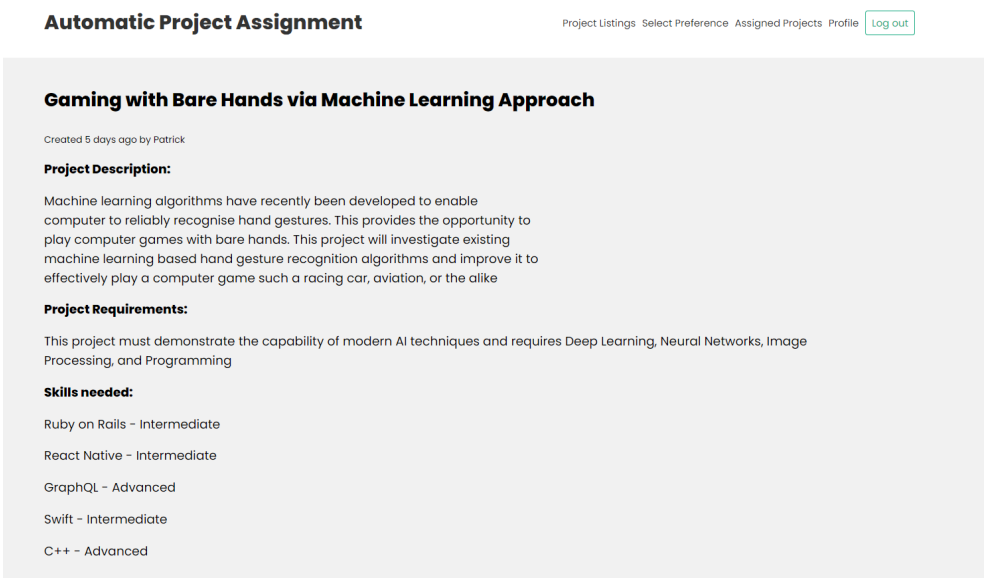
| | |
|---|---|
| | competency |
| Actual Result | The “Skills” page is updated with new skills and competency<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 3-5 View skills and competency details as Employee | |
|---|---|
| Pre-Condition | Employee must be logged into their account |
| Actions | 1. Click on “Profile” on the navigation bar<br>2. Click on “Skills” on the left navigation bar |
| Expected Result | Employee’s skills and competency will be displayed |
| Actual Result | Employee’s skills and competency is displayed<br>  |

| | |
|---|---|
| Pass / Fail | Pass |
| Observation (if any) | - |

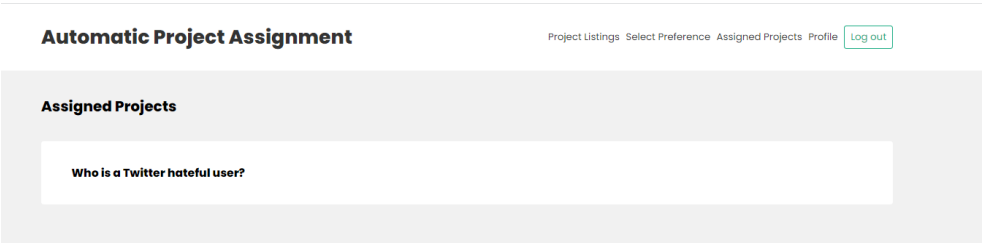
| 3-6 View project listing as Employee | |
|---|---|
| Pre-Condition | Employee must be logged into their account |
| Actions | <u>User is at home page</u><br>1. No actions needed<br><br><u>User is at not home page</u><br>1. Click on “Automatic Project Assignment” on the navigation bar |
| Expected Result | Existing projects should be displayed on the home page under Project Listings |
| Actual Result | Existing projects are displayed under the Project listing header<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 3-7 View project details as Employee | |
|---|---|
| Pre-Condition | Employee must be logged into their account |

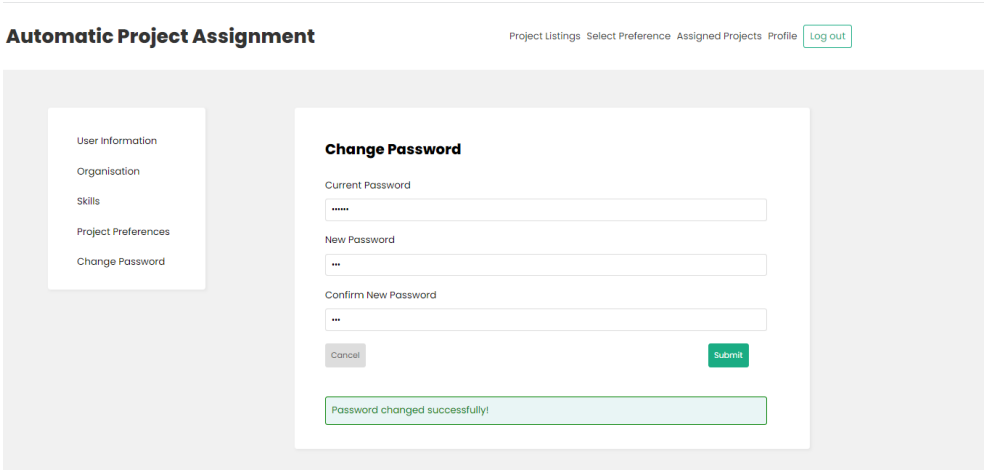
| | |
|---|---|
| Actions | <u>User is at home page</u><br>1. Click on a project you wish to view<br><br><u>User is at not home page</u><br>1. Click on “Automatic Project Assignment” on the navigation bar<br>2. Click on a project you wish to view |
| Expected Result | Selected project will have its details displayed (e.g description, requirements) |
| Actual Result | Selected project has its details displayed<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

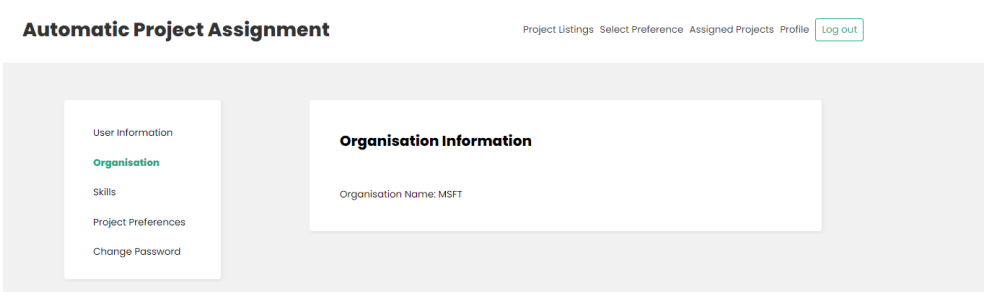
| 3-8 Input/update project preference as Employee | |
|---|---|
| Pre-Condition | Employee must be logged into their account |
| Actions | 1. Click on “Select Preferences” on the navigation bar<br>2. Input project preferences using the dropdown list under the respective choices (e.g first choice, third choice)<br>3. Click on the “Submit” button |

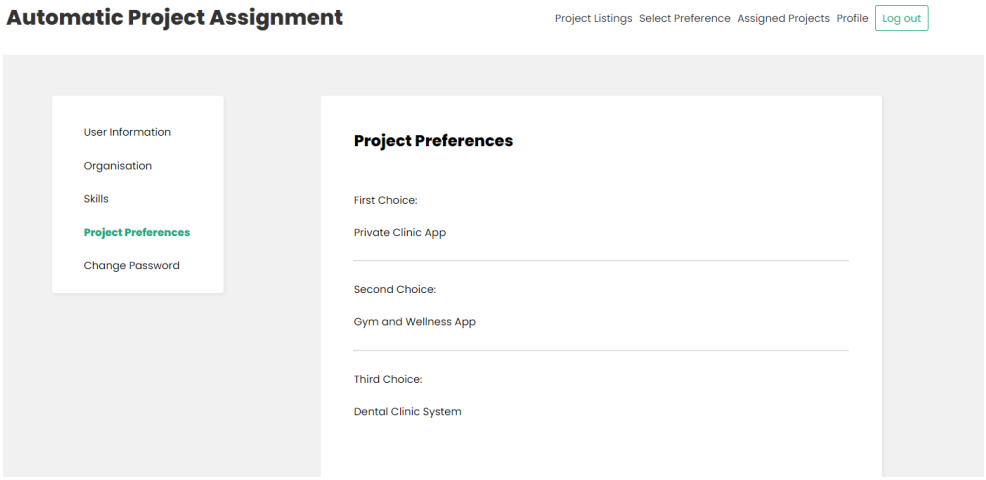
| | |
|---|---|
| Expected Result | Page is redirected to the home page and the employee's preferences are saved |
| Actual Result | Page is redirected to the home page and the employee's preferences are saved |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 3-9 View assignment result as Employee | |
|---|---|
| Pre-Condition | Employee must be logged into their account |
| Actions | Click on "Assigned Projects" on the navigation bar |
| Expected Result | Assigned project after automation will be shown |
| Actual Result | The assigned project is shown   |
| Pass / Fail | Pass |
| Observation (if any) | - |

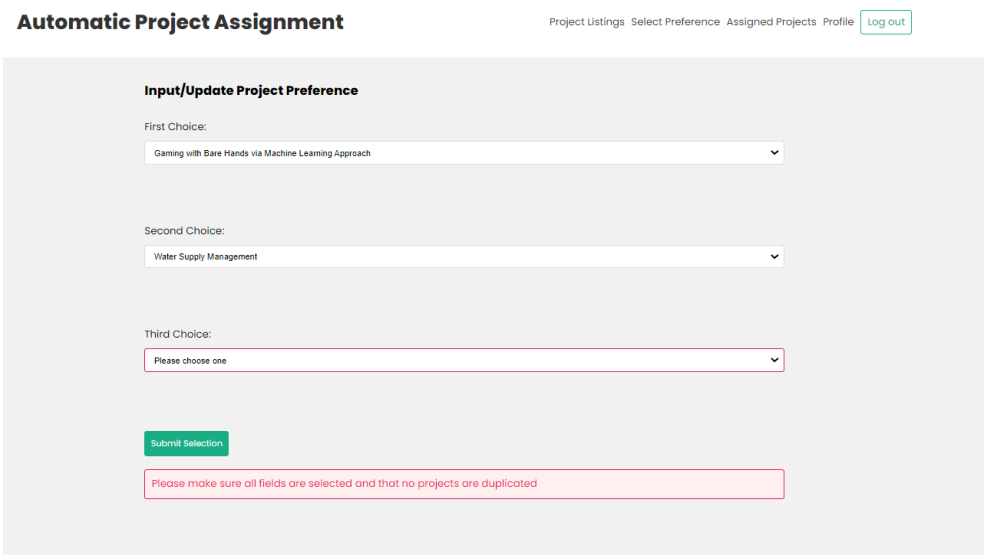
| 3-10 Change and reset password as Employee | |
|---|---|
| Pre-Condition | Employee must be logged into their account |
| Actions | 1. Click on "Profile" on the navigation bar<br>2. Click on "Change Password" on the left navigation bar<br>3. Enter Necessary Details as specified<br>4. Click on the "Submit" button |
| Expected Result | Password is changed successfully and the message "Password |

| | |
|---|---|
| | changed successfully!" is displayed |
| Actual Result | Password is changed and the message is displayed<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

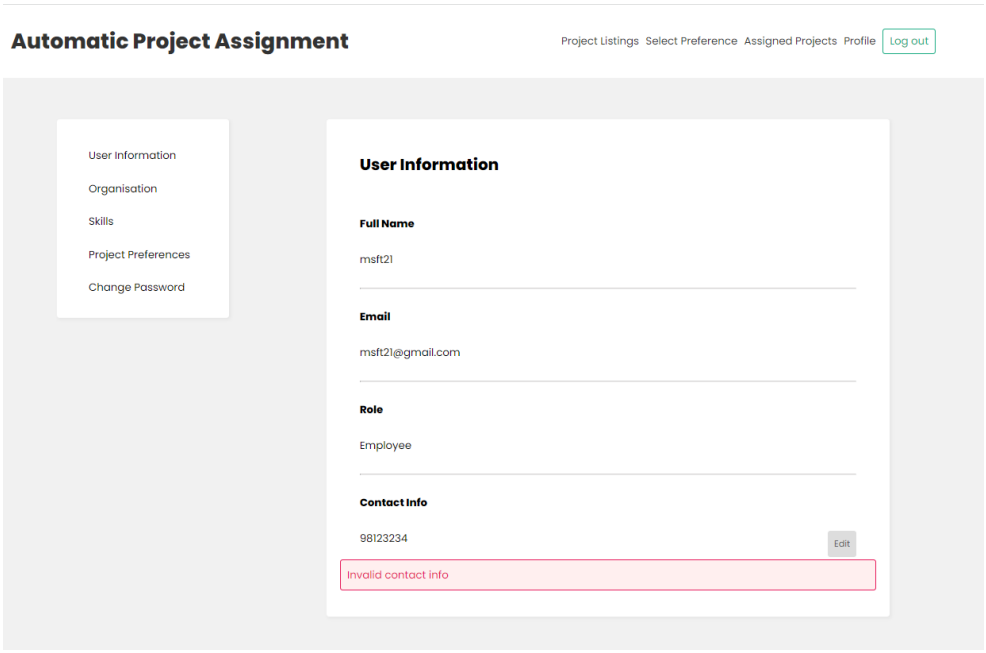
| 3-11 View Organisation as Employee | |
|---|---|
| Pre-Condition | Employee must be logged into their account |
| Actions | 1. Click on "Profile" on the navigation bar<br>2. Click on "Organisation" on the left navigation bar |
| Expected Result | Organisation that the Employee belongs to will be displayed |
| Actual Result | Organisation that the Employee belongs to is displayed<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 3-12 View Project Preferences as Employee | |
|---|---|
| Pre-Condition | Employee must be logged into their account<br>Employee must have already submitted their project preferences |
| Actions | 1. Click on “Profile” on the navigation bar<br>2. Click on “Project Preferences” on the left navigation bar |
| Expected Result | Employee’s submitted project preferences will be displayed |
| Actual Result | Employee’s submitted project preferences is displayed<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

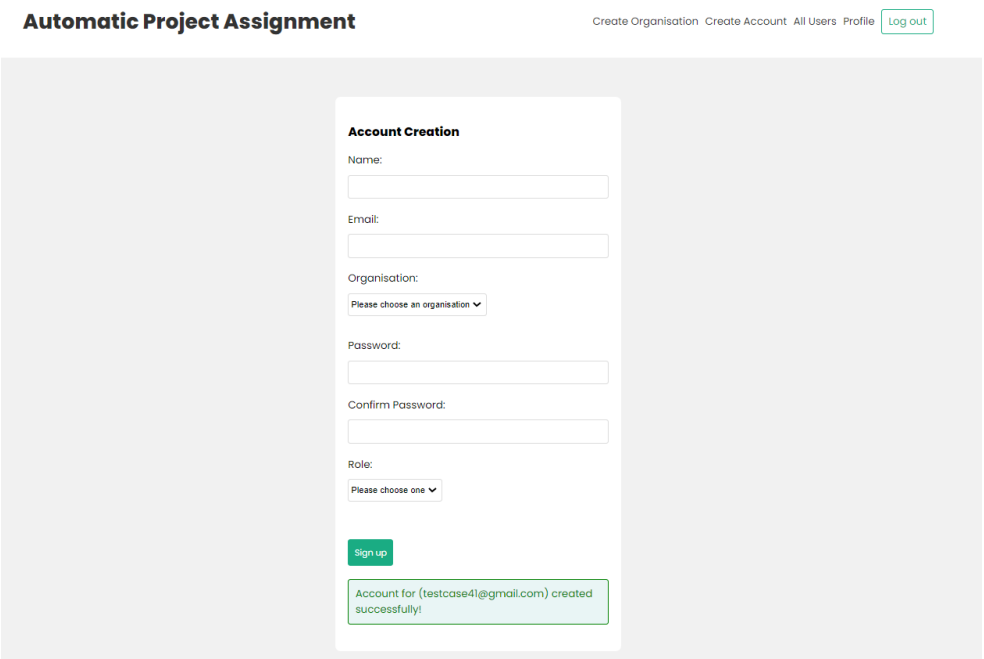
| 3-13 Invalid Input/Update Project Preference | |
|---|---|
| Pre-Condition | Employee must be logged into their account |
| Actions | 1. Click on “Select Preferences” on the navigation bar<br>2. Leave a choice blank<br>3. Click on the “Submit” button |
| Expected Result | Employee’s project preference isn’t saved and the message “Please make sure all fields are selected and that no projects are duplicated” should be displayed |

| | |
|---|---|
| Actual Result | Employee's project preference isn't saved and the message "Please make sure all fields are selected and that no projects are duplicated" is displayed   |
| Pass / Fail | Pass |
| Observation (if any) | - |

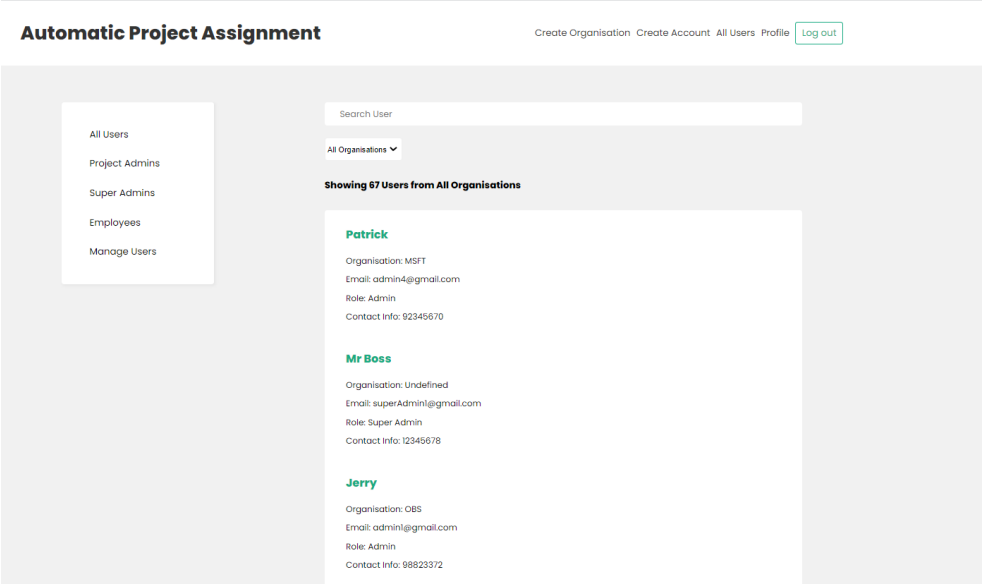
| 3-14 Invalid Input of Contact Info | |
|---|---|
| Pre-Condition | Employee must be logged into their account |
| Actions | 1. Click on "Profile" on the navigation bar<br>2. Click on "User Information" on the left navigation bar<br>3. Click on the "Edit" button beside contact info<br>4. Input Invalid Contact Info<br>5. Click on the "Submit" button |
| Expected Result | Contact Info remains unchanged and the message "Invalid Contact Info" should be displayed |
| Actual Result | Contact Info remains unchanged and the message "Invalid Contact Info" is displayed |

| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

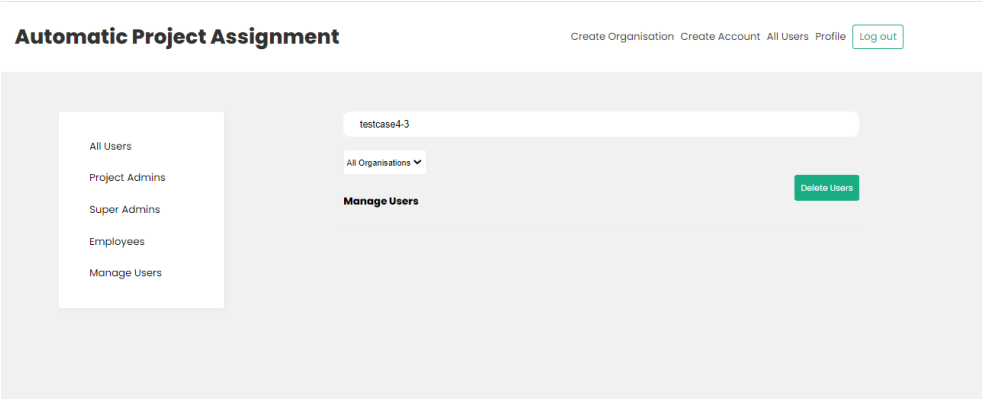
## 6.4 Super Admin

| 4-1 Create user account as Super Admin | |
|---|---|
| Pre-Condition | Super Admin must be logged into their account |
| Actions | 1. Click on “Create Account” on the navigation bar<br>2. Enter the necessary details as specified on the “Create Account” page.<br>3. Click on the “Sign Up” button |
| Expected Result | “Account for (testcase41@gmail.com) created successfully !” message is shown at the bottom of the page. |
| Actual Result | “Account for (testcase41@gmail.com) created successfully !” message is shown.<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

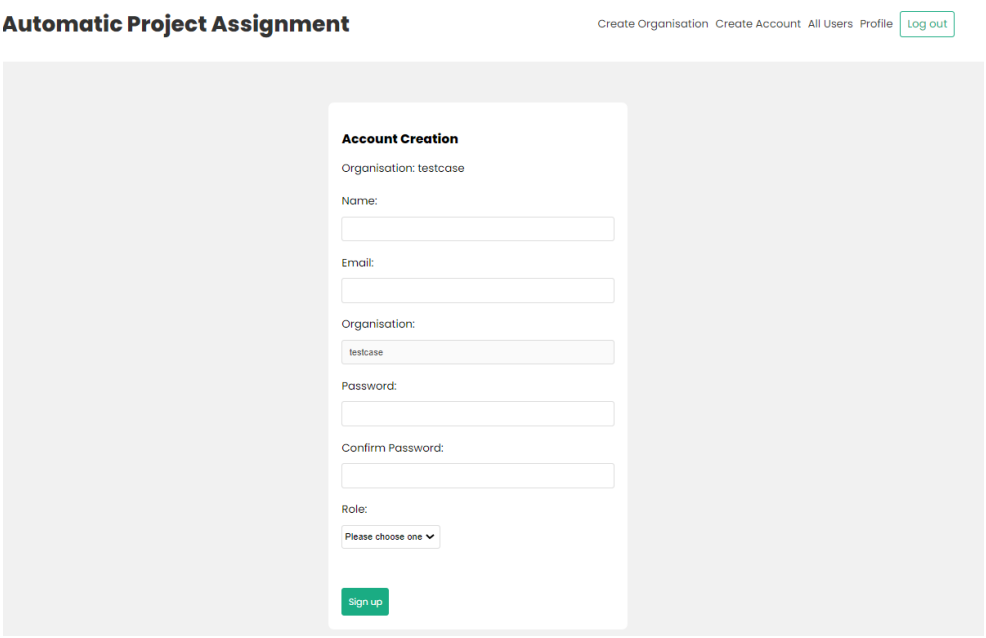
| 4-2 View user account as Super Admin | |
|---|---|
| Pre-Condition | 1. Super Admin must be logged into their account |

| | |
|---|---|
| | 2. There must be existing user accounts within the system |
| Actions | Click on “All Users” on the navigation bar |
| Expected Result | “All Users” Page will be displayed indicating the total number of users and different search parameters for more specific searches |
| Actual Result | All Users” Page is displayed   |
| Pass / Fail | Pass |
| Observation (if any) | - |

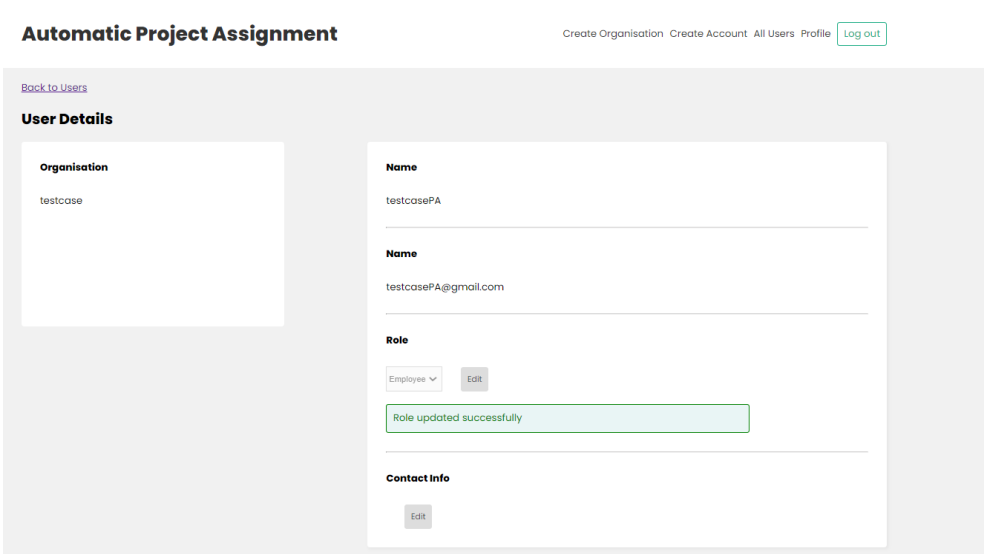
| 4-3 Delete user account as Super Admin | |
|---|---|
| Pre-Condition | 1. Super Admin must be logged into their account<br>2. There must be existing user accounts within the system |
| Actions | <u>Multiple Deletion</u><br>1. Click on “All Users” on the navigation bar<br>2. Click on “Manage Users” on the left navigation bar<br>3. Search Up User Accounts you wish to delete on the search bar<br>4. Click on Empty Check Box to indicate the account you wish to delete<br>5. Click On the “Delete Users” button |

| | |
|---|---|
| | <u>Single Deletion</u><br>1. Click on “All Users” on the navigation bar<br>2. Click on “Manage Users” on the left navigation bar<br>3. Search Up User Account you wish to delete on the search bar<br>4. Click on the Trash Bin Icon beside the account you wish to delete |
| Expected Result | Account deleted should not appear when searched on the “All Users” Page |
| Actual Result | Account deleted did not appear when searched<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

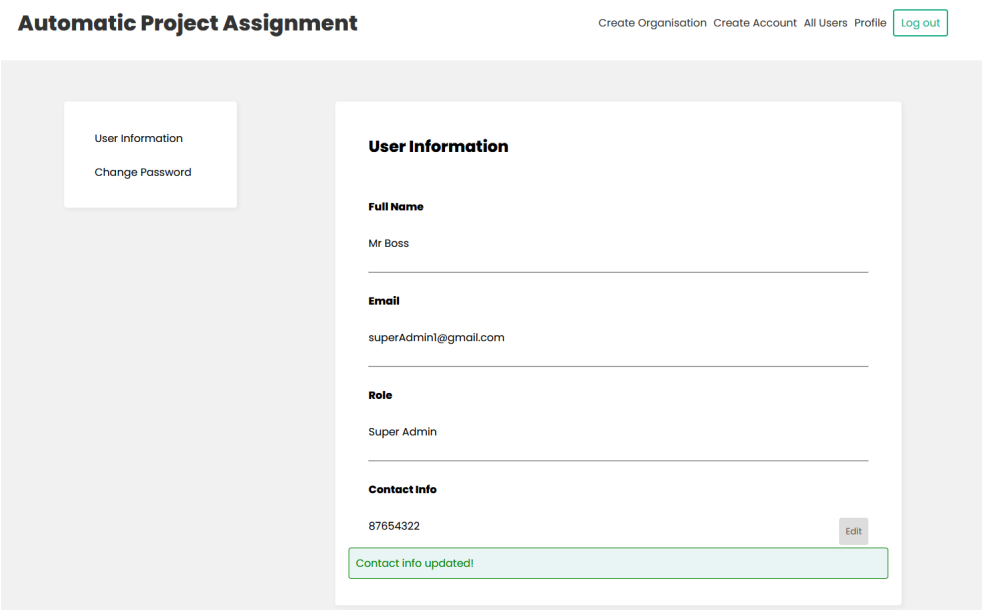
| 4-4 Create Organisation codes as Super Admin | |
|---|---|
| Pre-Condition | Super Admin must be logged into their account |
| Actions | 1. Click on “Create Organisation” on the navigation bar<br>2. Enter the necessary details as specified on the “Create Account” page.<br>3. Click on the “Add New Organisation Listing” button |
| Expected Result | Clicking on the “Create Employee/Project Admin Account for __” button will allow you to create accounts for a certain organisation. |
| Actual Result | Account creation will show organisation code |

| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

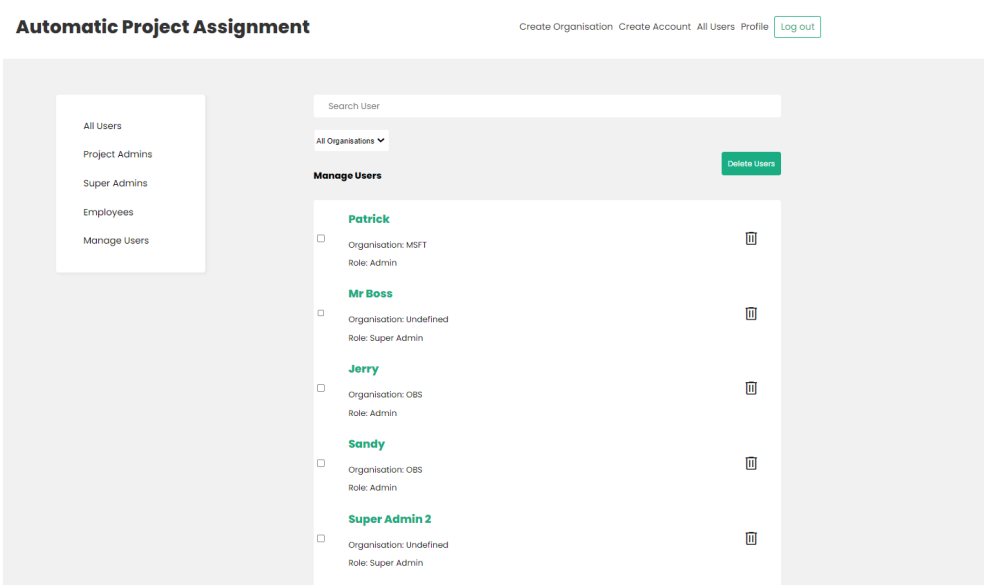
| 4-5 Edit user role as Super Admin | |
|---|---|
| Pre-Condition | 1. Super Admin must be logged into their account<br>2. There must be existing user accounts within the system |
| Actions | 1. Click on “All Users” on the navigation bar<br>2. Search the user account you wish to edit on the search bar<br>3. Click on the intended user account<br>4. Click on the “Edit” button beside role<br>5. Change User Role using drop-down list<br>6. Click on the “Submit” button |
| Expected Result | User account role should be changed after editing and the message “Role updated successfully” should be displayed |
| Actual Result | User account role is successfully changed and a message is displayed |

| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

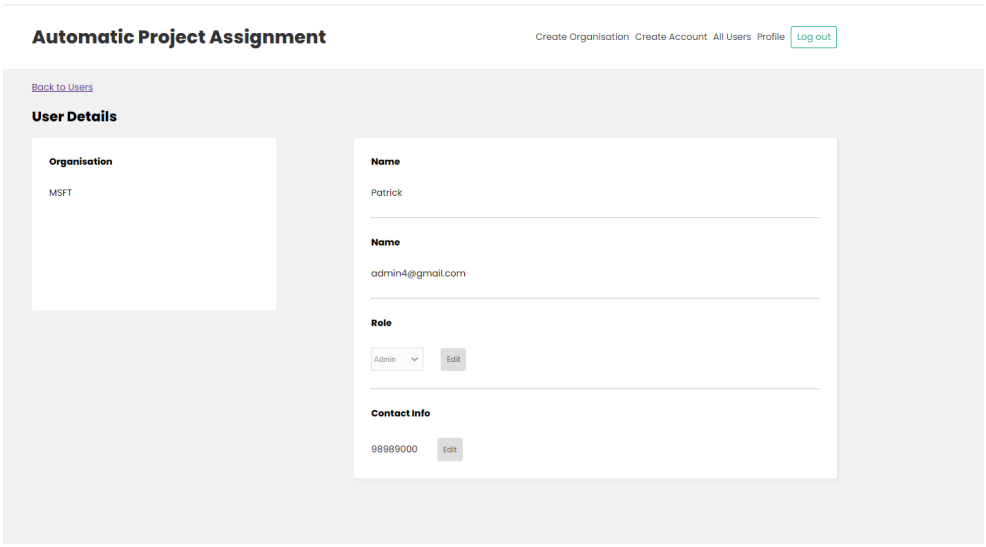
| 4-6 Edit user account contact info as Super Admin | |
|---|---|
| Pre-Condition | 1. Super Admin must be logged into their account<br>2. There must be existing user accounts within the system |
| Actions | 1. Click on “All Users” on the navigation bar<br>2. Search the user account you wish to edit on the search bar<br>3. Click on the intended user account<br>4. Click on the “Edit” button beside contact info<br>5. Enter contact info on the empty text field<br>6. Click on the “Save” button |
| Expected Result | User account contact number should be changed after editing |
| Actual Result | User account contact number is successfully changed |

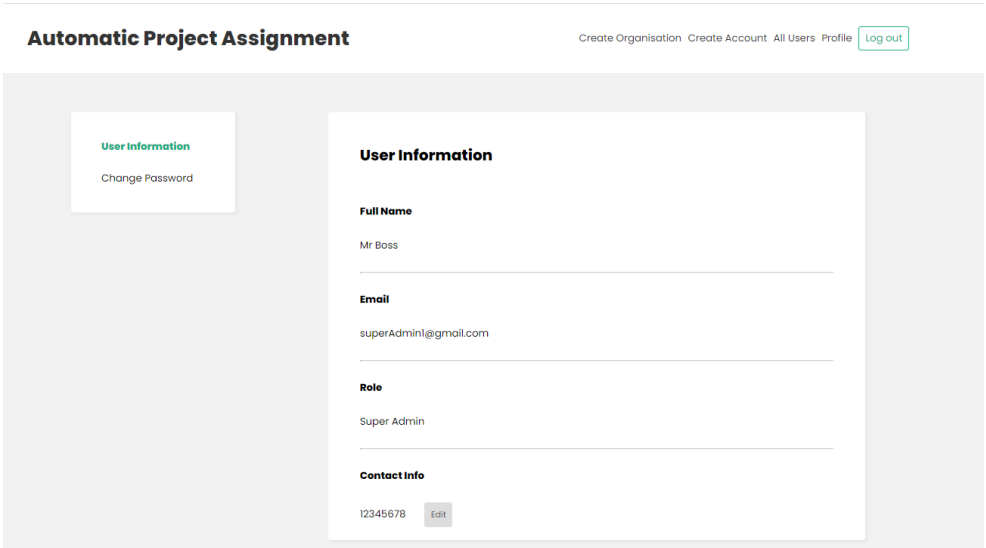
| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 4-7 Manage users in an Organisation as Super Admin | |
|---|---|
| Pre-Condition | 1. Super Admin must be logged into their account<br>2. There must be existing user accounts within the system |
| Actions | 1. Click on “All Users” on the navigation bar<br>2. Click on “Manage Users” on the left navigation bar |
| Expected Result | “Manage Users” Page should be successfully displayed |
| Actual Result | “Manage Users” page is displayed |

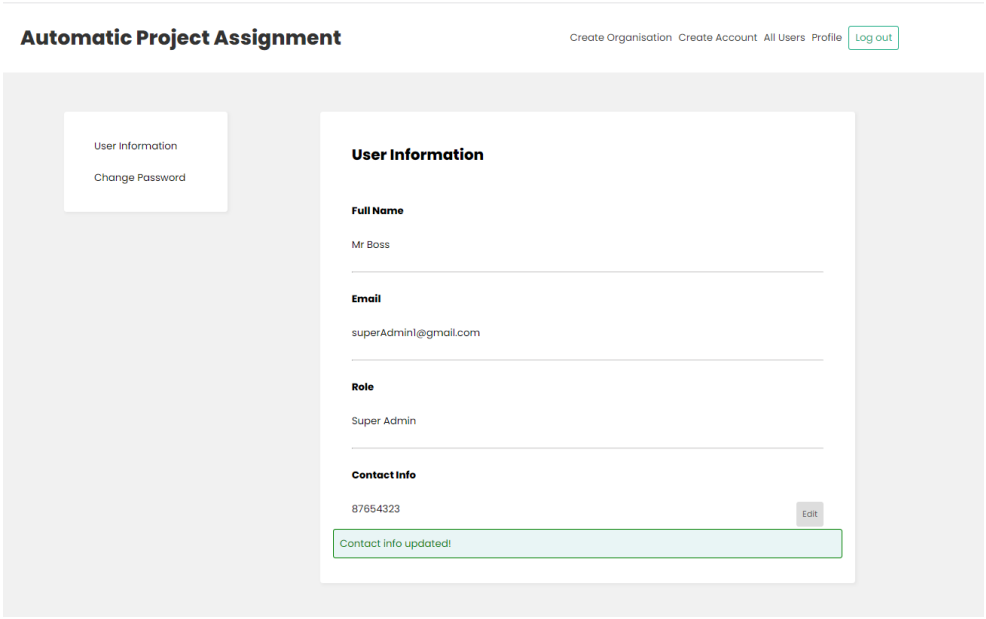
| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 4-8 View User Profile as Super Admin | |
|---|---|
| Pre-Condition | 1. Super Admin must be logged into their account<br>2. There must be existing user accounts within the system |
| Actions | 1. Click on “All Users” on the navigation bar<br>2. Search the user account you wish to view on the search bar<br>3. Click on the intended user account |
| Expected Result | Intended user account profile is successfully displayed |
| Actual Result | User profile is displayed |

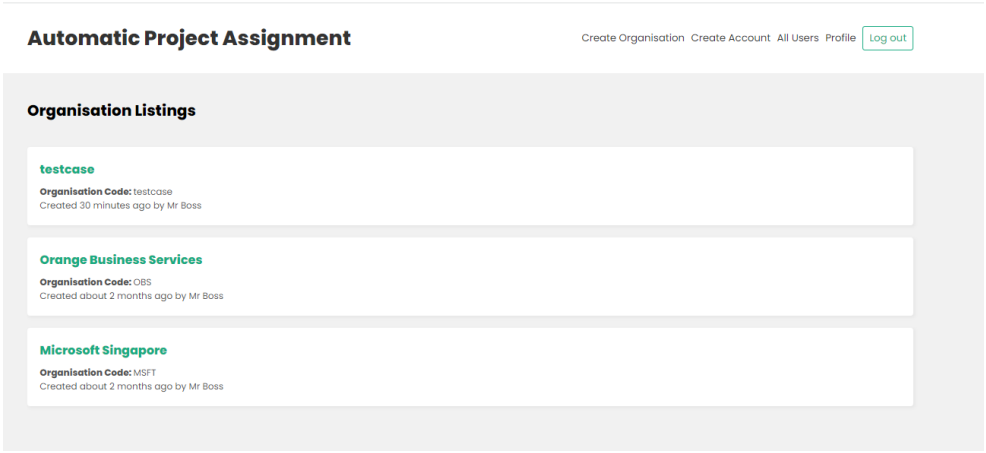
| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 4-9 View Profile as Super Admin | |
|---|---|
| Pre-Condition | 1. Super Admin must be logged into their account |
| Actions | Click on “Profile” on the navigation bar |
| Expected Result | Intended user account profile is successfully displayed<br>  |
| Actual Result | User profile is displayed |

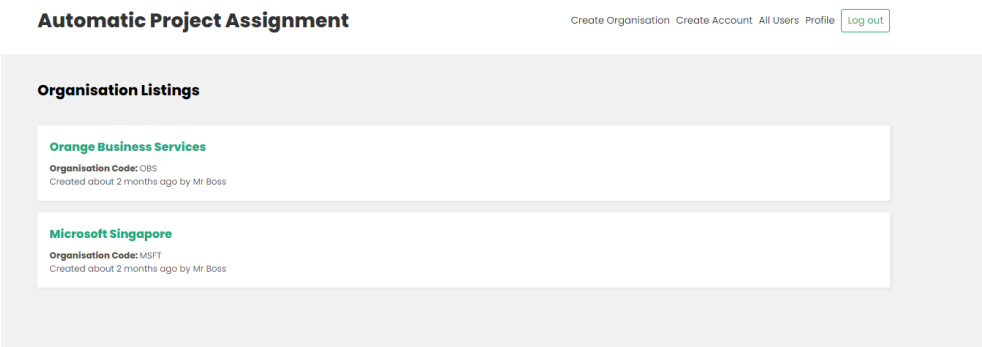
| | |
|---|---|
| | |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 4-10 Edit Contact Info as Super Admin | |
|---|---|
| Pre-Condition | Super Admin must be logged into their account |
| Actions | 1. Click on “Profile” on the navigation bar<br>2. Click on the “Edit” button beside contact info<br>3. Enter new contact info on the empty text field<br>4. Click on the “Submit” button |
| Expected Result | Contact info is successfully edited and the message “Contact Info Updated!” is displayed |
| Actual Result | Contact info is changed and a message is successfully displayed<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

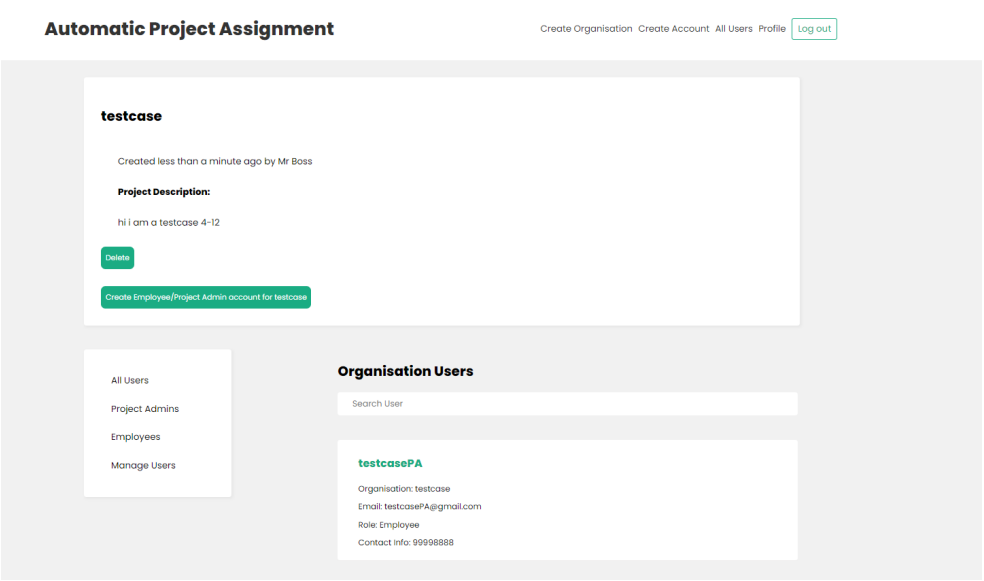
| 4-11 View Organisation Listing as Super Admin |
|---|

| | |
|---|---|
| Pre-Condition | 1. Super Admin must be logged into their account<br>2. There must be existing organisation within the system |
| Actions | <u>User is at home page</u><br>1. No actions needed<br><br><u>User is at not home page</u><br>1. Click on “Automatic Project Assignment” on the navigation bar |
| Expected Result | Existing organisation should be displayed on the home page under Organisation Listings |
| Actual Result | Existing Organisation listings is displayed<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

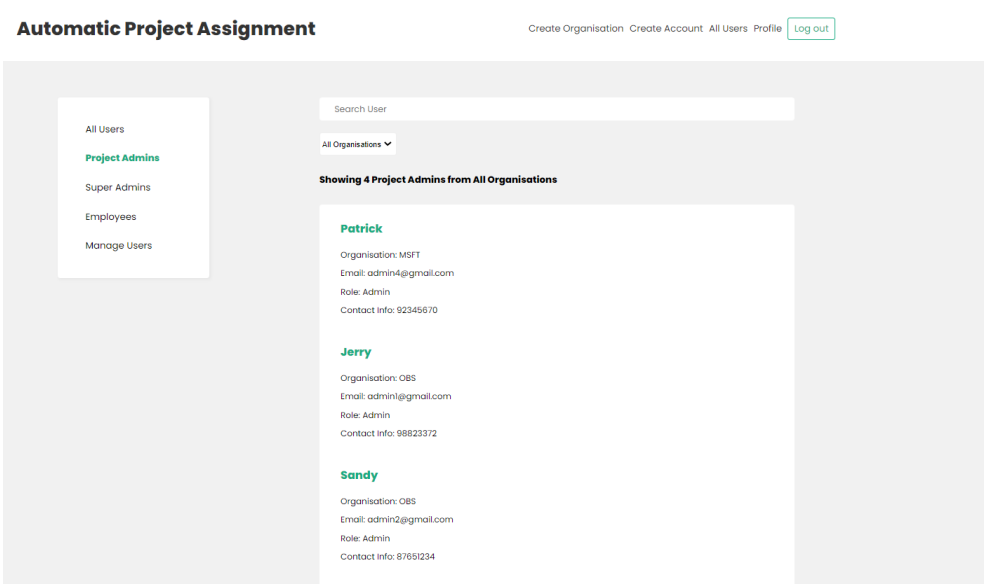
| 4-12 Delete Organisation Listing as Super Admin | |
|---|---|
| Pre-Condition | 1. Super Admin must be logged into their account<br>2. There must be existing organisation within the system |
| Actions | <u>User is at home page</u><br>1. Click on the intended organisation listing<br>2. Click on the “Delete” button<br><br><u>User is at not home page</u><br>1. Click on “Automatic Project Assignment” on the navigation |

| | |
|---|---|
| | bar<br>2. Click on the intended organisation listing<br>3. Click on the "Delete" button |
| Expected Result | Deleted organisation should not appear on the main page |
| Actual Result | Deleted organisation did not appear on the main page<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

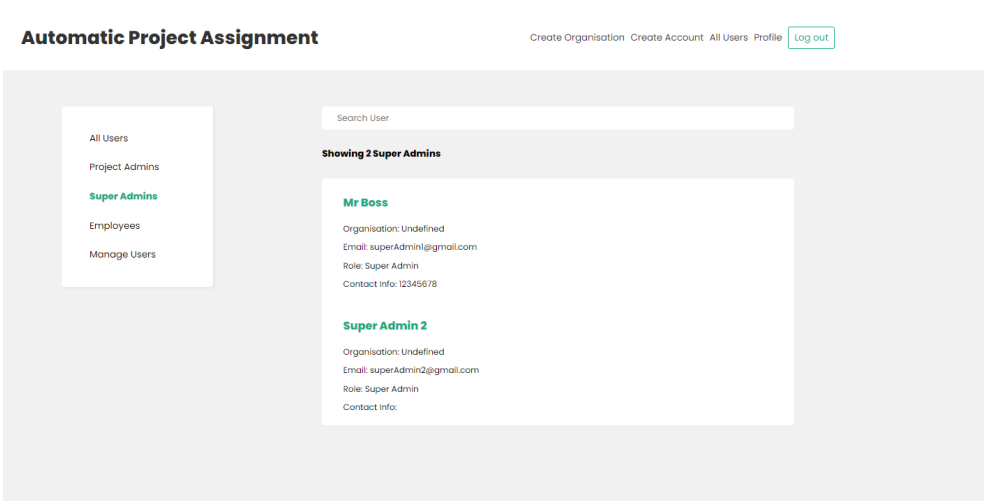
| 4-13 View Organisation Details as Super Admin | |
|---|---|
| Pre-Condition | 1. Super Admin must be logged into their account<br>2. There must be existing organisation within the system |
| Actions | <u>User is at home page</u><br>1. Click on the intended organisation listing<br><br><u>User is not at home page</u><br>1. Click on "Automatic Project Assignment" on the navigation bar<br>2. Click on the intended organisation listing |
| Expected Result | Selected Organisation Details will be displayed |
| Actual Result | Selected Organisation Details is be displayed |

| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

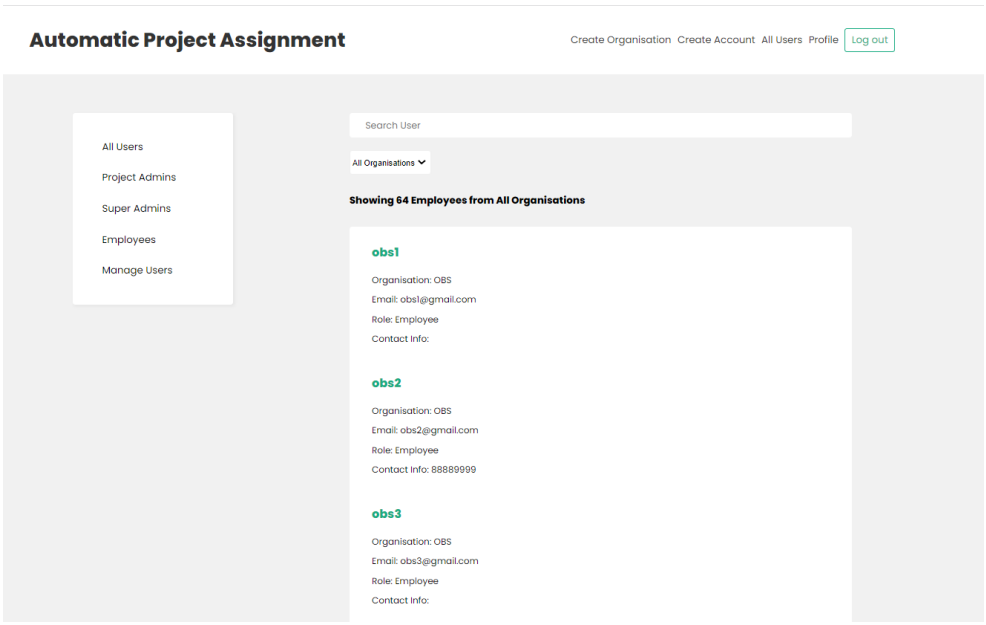
| 4-14 Filter User Accounts by Project Admin as Super Admin | |
|---|---|
| Pre-Condition | 1. Super Admin must be logged into their account<br>2. There must be existing user accounts within the system |
| Actions | 1. Click on “All Users” on the navigation bar<br>2. Click on “Project Admins” on the left navigation bar |
| Expected Result | “Showing _ Project Admins from all Organisation” header should appear above the list of existing project admins accounts. |
| Actual Result | Header appeared and the list of existing project admins is displayed |

| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

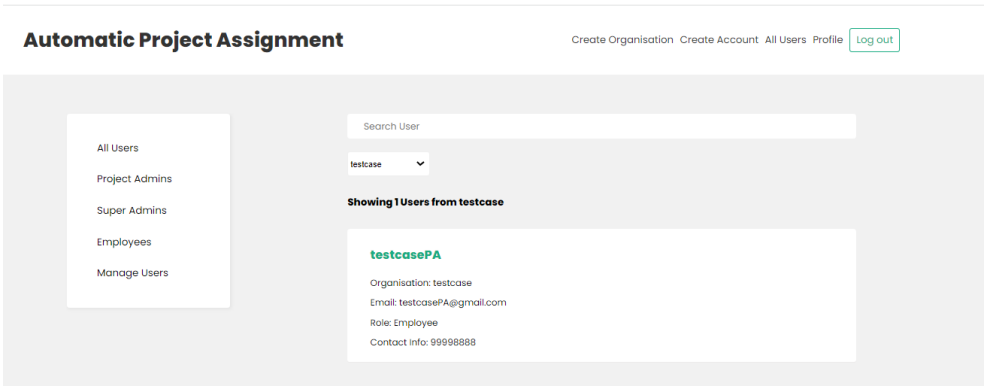
| 4-15 Filter User Accounts by Super Admin as Super Admin | |
|---|---|
| Pre-Condition | 1. Super Admin must be logged into their account<br>2. There must be existing user accounts within the system |
| Actions | 1. Click on “All Users” on the navigation bar<br>2. Click on “Super Admins” on the left navigation bar |
| Expected Result | “Showing _ Super Admins” header should appear above the list of existing super admins accounts. |
| Actual Result | Header appeared and the list of existing super admins is displayed |

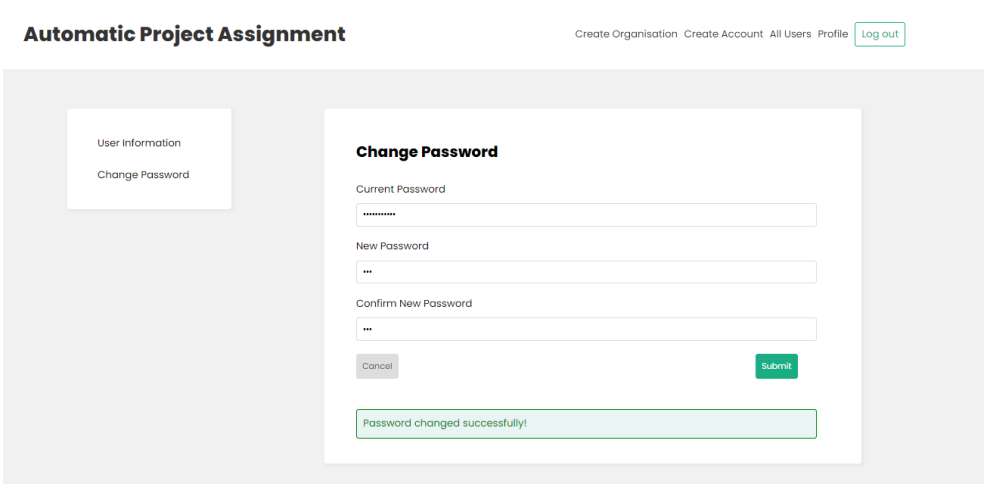
| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 4-16 Filter User Accounts by Employee as Super Admin | |
|---|---|
| Pre-Condition | 1. Super Admin must be logged into their account<br>2. There must be existing user accounts within the system |
| Actions | 1. Click on “All Users” on navigation bar<br>2. Click on “Employees” on left navigation bar |
| Expected Result | “Showing _ Employees from all Organisation” header should appear above the list of existing employee accounts. |
| Actual Result | Header appeared and list of existing employee is displayed |

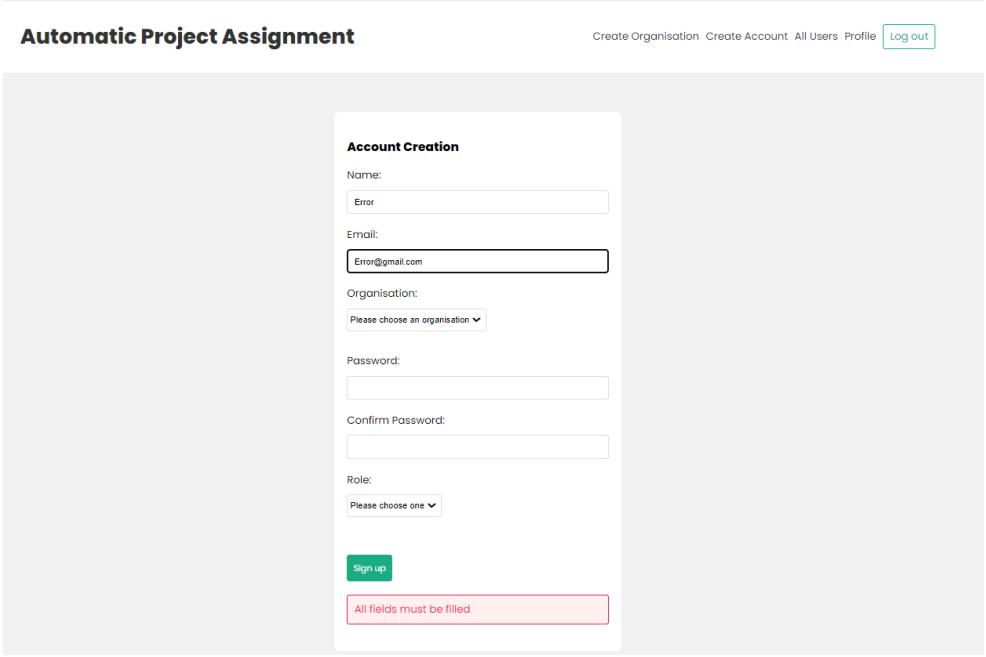
| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 4-17 Filter User Accounts by Organisation as Super Admin | |
|---|---|
| Pre-Condition | 1. Super Admin must be logged into their account<br>2. There must be existing user accounts within the system |
| Actions | 1. Click on “All Users” on the navigation bar<br>2. Click on the “All Organisation” drop-down box<br>3. Select the Organisation you wish to filter by |
| Expected Result | “Showing _ Users from ____” header should appear above the list of existing employee accounts within the organisation |
| Actual Result | Header appeared and the list of users from the selected organisation is displayed |

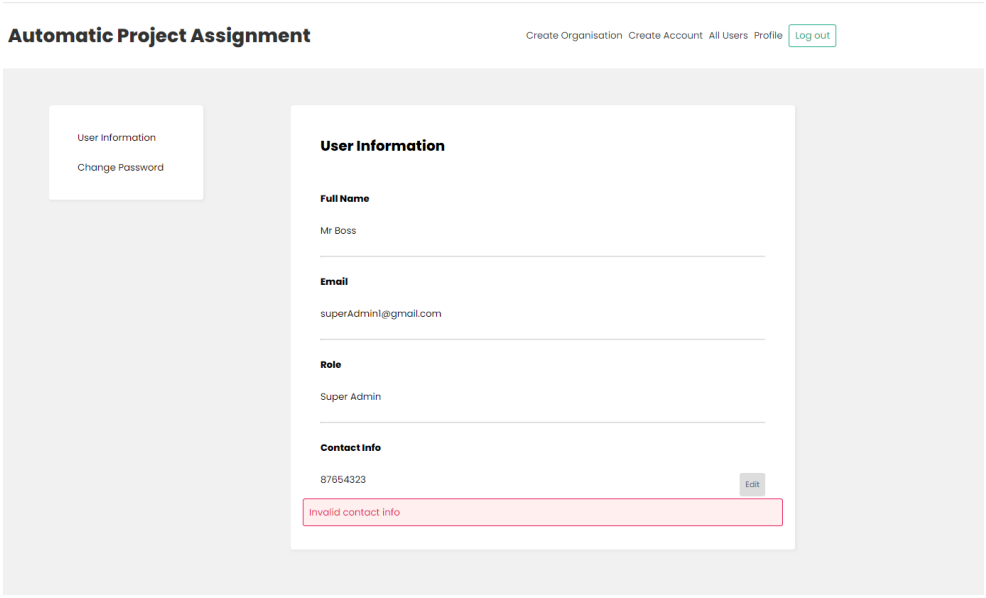
| | |
|---|---|
| |  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 4-18 Change/Reset Password as Super Admin | |
|---|---|
| Pre-Condition | Super Admin must be logged into their account |
| Actions | 1. Click on “Profile” on the navigation bar<br>2. Click on “Change Password” on the left navigation bar<br>3. Enter Necessary Details as specified<br>4. Click on the “Submit” button |
| Expected Result | Password is changed successfully and the message “Password changed successfully!” is displayed |
| Actual Result | Password changed and a message is displayed<br>  |

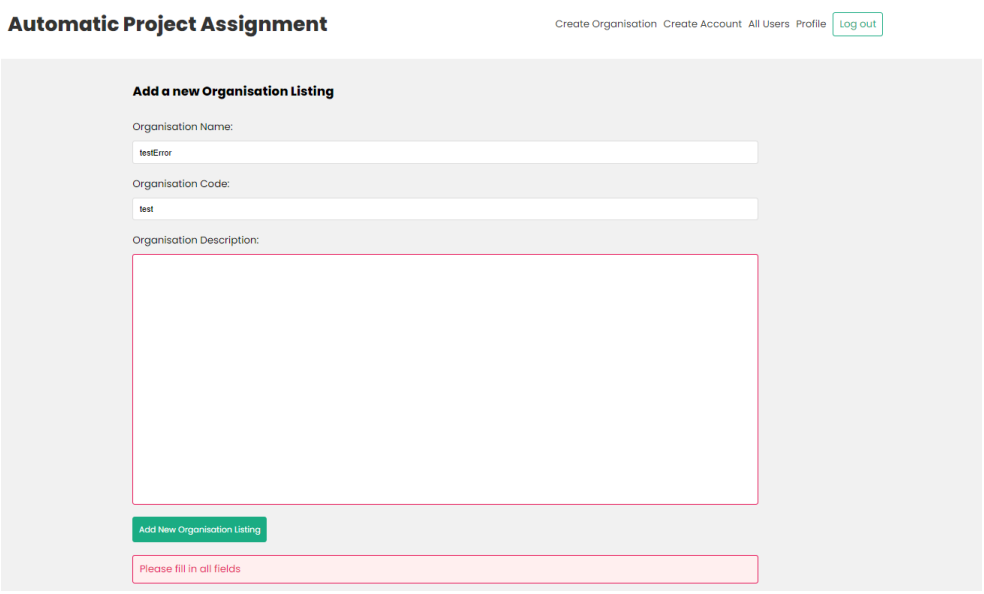
| | |
|---|---|
| Pass / Fail | Pass |
| Observation (if any) | - |

| 4-19 Invalid Input Test for Account Creation | |
|---|---|
| Pre-Condition | Super Admin must be logged into their account |
| Actions | 1. Click on “Create Account” on the navigation bar<br>2. Input Invalid Details<br>3. Click on the “Sign Up” button |
| Expected Result | Account is not created and an error message should be displayed |
| Actual Result | Account is not created and an error message is displayed<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 4-20 Invalid Input of Contact Info | |
|---|---|
| Pre-Condition | Super Admin must be logged into their account |

| | |
|---|---|
| Actions | 1. Click on “Profile” on the navigation bar<br>2. Click on “User Information” on the left navigation bar<br>3. Click on the “Edit” button beside contact info<br>4. Input Invalid Contact Info<br>5. Click on “Submit” |
| Expected Result | Contact Info remains unchanged and the message “Invalid Contact Info” should be displayed |
| Actual Result | Contact Info remains unchanged and the message “Invalid Contact Info” is displayed<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

| 4-21 Invalid Input for Organisation creation | |
|---|---|
| Pre-Condition | Super Admin must be logged into their account |
| Actions | 1. Click on “Create Organisation” on the navigation bar<br>2. Input Invalid Organisation Details<br>3. Click on “Add New Organisation Listing” |
| Expected Result | Organisation is not created and an error message will be displayed |

| | |
|---|---|
| Actual Result | Organisation is not created and an error message is displayed<br>  |
| Pass / Fail | Pass |
| Observation (if any) | - |

## Unit Test

| Test Name | Add Super Admin Accounts #1 | | | |
|---|---|---|---|---|
| Test Requirements | Different types of SA accounts are to be added to system | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 2 | 2 | 2 | - |

| Test Name | Add Project Admin Accounts #2 | | | |
|---|---|---|---|---|
| Test Requirements | Different types of PA accounts are to be added to system | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 4 | 4 | 4 | - |

| Test Name | Add Employee Accounts #3 | | | |
|---|---|---|---|---|
| Test Requirements | Different types of Employee accounts are to be added to system | | | |
| Status | Result | Actual | Tested | Message |
| Fail | 45 | 50 | 50 | Duplicate Accounts were discovered |

| Test Name | Add Organisation #4 | | | |
|---|---|---|---|---|
| Test Requirements | Different types of Organisation are to be added to system | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 3 | 3 | 3 | - |

| Test Name | Add Organisation Skills #5 |
|---|---|
| Test | Different types of Organisation skills are to be added to system |

| Requirements | | | | |
|---|---|---|---|---|
| Status | Result | Actual | Tested | Message |
| Pass | 11 | 11 | 11 | - |

| Test Name | Add Projects #6 | | | |
|---|---|---|---|---|
| Test Requirements | Different types of Projects are to be added to system | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 30 | 30 | 30 | - |

| Test Name | Add Project Assignment #7 | | | |
|---|---|---|---|---|
| Test Requirements | Different types of Projects Assignment are to be added to system | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 5 | 5 | 5 | - |

| Test Name | Populating Project Assignment #8 | | | |
|---|---|---|---|---|
| Test Requirements | Created Project Assignments are to be populated with data required for automation | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 5 | 5 | 5 | - |

| Test Name | Submit Employee Project Preference #9 | | | |
|---|---|---|---|---|
| Test Requirements | Employee Preferences are to be submit and stored within system | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 30 | 30 | 30 | - |

| Test Name | Retrieve Employee Project Preference #10 | | | |
|---|---|---|---|---|
| Test Requirements | Submitted Employee Preferences are to be retrieved by Admin | | | |
| Status | Result | Actual | Tested | Message |
| Fail | 20 | 30 | 30 | Certain Projects weren't retrieved due to inactive status |

| Test Name | View Profile #11 | | | |
|---|---|---|---|---|
| Test Requirements | User is able to view his/her own profile | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 16 | 16 | 16 | - |

| Test Name | Edit Profile (Super Admin) #12 | | | |
|---|---|---|---|---|
| Test Requirements | Super Admin is able to edit his/her own profile | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 2 | 2 | 2 | - |

| Test Name | Edit Profile (Project Admin) #13 | | | |
|---|---|---|---|---|
| Test Requirements | Project Admin is able to edit his/her own profile | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 4 | 4 | 4 | - |

| Test Name | Edit Profile (Employee) #14 |
|---|---|

| Test Requirements | Employee is able to edit his/her own profile | | | |
|---|---|---|---|---|
| Status | Result | Actual | Tested | Message |
| Pass | 25 | 25 | 25 | - |

| Test Name | Edit Skills (Employee) #15 | | | |
|---|---|---|---|---|
| Test Requirements | Employee is able to edit his/her skills and competencies | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 25 | 25 | 25 | - |

| Test Name | Send Reset Password Email #16 | | | |
|---|---|---|---|---|
| Test Requirements | Request Password Email is successfully received by requester | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 5 | 5 | 5 | - |

| Test Name | Reset Password #17 | | | |
|---|---|---|---|---|
| Test Requirements | Password can be successfully resetted | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 5 | 5 | 5 | - |

| Test Name | Process Automatic Assignment #18 | | | |
|---|---|---|---|---|
| Test Requirements | Project Admin is able to process automatic assignment | | | |
| Status | Result | Actual | Tested | Message |
| Fail | 1 | 3 | 3 | Application occasionally crashes when |

| | | | | |
|---|---|---|---|---|
| | | | | process is started |

| Test Name | Retrieve Assignment Result #19 | | | |
|---|---|---|---|---|
| Test Requirements | Project Admin is able to successfully retrieve assignment result | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 3 | 3 | 3 | - |

| Test Name | View Assignment Result #20 | | | |
|---|---|---|---|---|
| Test Requirements | Employee is able to successfully view assignment result | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 25 | 25 | 25 | - |

| Test Name | View Project Listing #21 | | | |
|---|---|---|---|---|
| Test Requirements | Employees and Project Admins are able to view existing project listing and their details | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 10 | 10 | 10 | - |

| Test Name | View Organisation #22 | | | |
|---|---|---|---|---|
| Test Requirements | Super Admins are able to view existing organisation and their details | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 3 | 3 | 3 | - |

| Test Name | Show Password #23 |
|---|---|

| Test Requirements | Users are able to view their password unencrypted | | | |
|---|---|---|---|---|
| Status | Result | Actual | Tested | Message |
| Pass | 5 | 5 | 5 | - |

| Test Name | Test Invalid Login #24 | | | |
|---|---|---|---|---|
| Test Requirements | Users are not able to login into system with invalid credentials | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 10 | 10 | 10 | - |

| Test Name | Test Login #25 | | | |
|---|---|---|---|---|
| Test Requirements | Users are able to login into system | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 10 | 10 | 10 | - |

| Test Name | Test Logout #26 | | | |
|---|---|---|---|---|
| Test Requirements | Users are able to logout of the system | | | |
| Status | Result | Actual | Tested | Message |
| Pass | 10 | 10 | 10 | - |

## Integration Test

| Test ID | Objective | Description | Expected Results | Outcome |
|---|---|---|---|---|
| 1 | Checking the interface between login page and user's home page | User to enter login details and click on login | User successfully logins | Pass |
| 2 | Checking the interface between home page and user's profile page | User to click on profile on the navigation bar | User's profile is successfully displayed | Pass |
| 3 | Checking the link between all users page and create account module | User to search up newly created account name via search bar on All users page | The newly created account should appear alongside its details | Pass |
| 4 | Checking the link between the all users page and the delete employee module | User to click on the trash bin icon beside user account on the manage employee page | Account selected should be deleted and does not show up | Pass |
| 5 | Checking the link between the add a new skill module and employee edit skills module | Click on Add Skills after entering new skills as Project Admin | Newly created skills should appear as an option for employees to select | Pass |
| 6 | Checking the link between the add a new skill module and create project module | Click on Add Skills after entering new skills as Project Admin | Newly created skills should appear as an option for project admins to select when creating new project | Pass |
| 7 | Checking the link between create project module and project listing module | Click on Add new project listing after entering necessary details on create project page as Project Admin | Newly created projects should appear on employee and project admins main page as a project listing | Pass |
| 8 | Checking the link between process automatic assignment module and view | Click on Process Automatic Assignment button as Project Admin | Statistics pertaining to the assignment should appear under the view statistics option. | Pass |

| | | | | |
|---|---|---|---|---|
| | statistics module | | | |
| 9 | Checking the link between process automatic assignment module and assigned projects page | Click on Assigned projects as Employee | Assigned projects after process automatic assignment is displayed | Pass |
| 10 | Checking the link between select preference module and project preference module | Click on project preference option under profile page as an Employee | Employee submitted project preference is displayed | Pass |
| 11 | Checking the link between select preference module and process automatic assignment module | Click on assigned projects option as an Employee | Employee's assigned project will be displayed according to his preferences unless he/she is underqualified | Pass |
| 12 | Checking the link between create organisation module and organisation module | Click on add new organisation listing and enter necessary details as a super admin | User's affiliated organisation code is displayed under organisation option in profile page | Pass |
| 13 | Checking the link between creating organisation module and super admin main page | Click on add new organisation listing and enter necessary details as a super admin | Newly created organisation should appear as organisation listing at super admin main page | Pass |
| 14 | Check the interface between homepage and logout button | User to click on log out | Account is logged out and User is redirected to login page | Pass |
| 15 | Checking the interface between the main login page and the forgot password page | User to click on forgot password | Forgot password page is displayed | Pass |

## User Acceptance Test

| UAT Acceptance Test | |
|---|---|
| 1. UAT Scope | |
| UAT - In Scope | UAT - Out of Scope |
| Login/Logout | CI/CD Framework |
| User Accounts Management | Multilingual Support |
| Organisation Listing Management | Kanban Boards |
| Project Listing Management | Chatbots |
| Skills & Competencies Management | Task and Resource Management |
| Project Choice Management | Real-time calendar tracking (e.g Gantt Chart Software) |
| Automatic Project Assignment | Virtual Project Meeting |
| Password Management | Organisation Community Forums and Messenger |

| UAT Assumptions | |
|---|---|
| Test Environment | Test cases are conducted by lead tester and tester; and will be reviewed by the project lead when completed |
| Test Documentation | All test cases are documented within the shared Google Drive Project folder |
| Error Reporting | Errors, failures and bugs will be highlighted and screenshotted and uploaded to a common discord channel |

| UAT Constraints | |
|---|---|
| Constraints | Resources |
| Deadline :<br>Testing must be completed by 14th February 2023 | Human Resources :<br>2 to 3 Testers available through the entirety of this FYP |
| - | Available Hardware :<br>Samsung Phone<br>iMac<br>Aftershock PC |
| - | Tested Operating systems :<br>Android 12<br>Windows 10 ,11<br>macOS Ventura |
| - | Browser Tests :<br>Firefox<br>Chrome<br>Edge<br>Opera<br>Safari |

| UAT Risks | | | |
|---|---|---|---|
| Description | Probability | Impact | Mitigation |
| Incomplete test environment due to time constraints | Low | Med | Realistic time management and proper workload delegation |
| Testers are not aware on how to report bugs/errors | Low | High | Establishing proper communication channels and good team communication |
| Testers are not properly trained | Med | Low | Refresh memory by doing research and reflecting on previous semester's test cases |
| UAT test failure | Low | High | UAT testing to start after development |

| | | | |
|---|---|---|---|
| | | | completes |

## Traceability Matrix

| Test Scenario | Test Case ID | Unit Test ID | Integration Test ID |
|---|---|---|---|
| 4.1 Test Login Functionality | 1-1 to 1-9 | #24,#25,#26 | #1,#14 |
| 4.2 Test Project Admin Features | 2-1 to 2-18 | #3,#5,#6,#7,#8,#10,#11,#13,#16,#17,#18,#19,#20,#21,#23 | #2,#3,#4,#5,#6,#7,#8,#15 |
| 4.3 Test Employee Features | 3-1 to 3-14 | #9,#11,#14,#15,#16,#17,#20,#21,#23 | #2,#5,#6,#7,#9,#10,#11 |
| 4.4 Test Super Admin Features | 4-1 to 4-21 | #1,#2,#3,#4,#11,#12,#16,#17,#22,#23 | #2,#3,#4,#12,#13 |

## Conclusion

Throughout the entire testing phase , the application has been thoroughly tested and any issues/bugs faced has been resolved before the development phase.
From this, we can ensure that all requirements are tested and that our clients will face no issues when using our application.

## References

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