COS 301 Assignment 4 (Testing Phase)

# Functional Requirements

## Users

### User Registration

Test Case 1

**Action:** Fill out all of the user registration details with correct data

**Expected Result:** The registration is a success

**Actual Result:** The registration was a success. A message is displayed to the user to indicate it was a success and the user is navigated back to the sign in page

Test Case 2

**Action:** All registration input fields are left blank

**Expected Result:** The registration is unsuccessful

**Actual Result:** The registration was not successful; the input boxes had a red outline to indicate that the data needed to be filled in

**Possible improvements:** Feedback in the form of text could have been given to indicate that the data needs to be filled in before a successful registration can be achieved

Test Case 3

**Action:** An incorrect email address is entered

**Expected Result:** The registration is unsuccessful

**Actual Result:** The registration was a success

**Possible improvements:** The application should check if the users email address actually exists before allowing users to register with it

Test Case 4

**Action:** Register using two different passwords

**Expected Result:** The registration is unsuccessful

**Actual Result:** The registration was not successful, the password input boxes have a red border to indicate there was a problem

**Possible improvements:** More feedback could be given. For example, a message saying that the passwords are not the same could be displayed. This would help the user as there could be other issues with the password such as it not being long enough or the password is not successful since it may need capital letters or characters.

Test Case 5

**Action:** Register using two different email addresses

**Expected Result:** The registration is unsuccessful

**Actual Result:** The registration was not a success, the email input boxes have a red border around them.

**Possible improvements:** More feedback could be given as to what the problem with the email addresses was.

Test Case 6

**Action:** Register more than one user with the same username

**Expected Result:** The registration is unsuccessful

**Actual Result:** The registration was a success

**Possible improvements:** More should be done in order to ensure that only users with unique usernames are allowed to register.

Test Case 7

**Action:** Register more than one user with the same email address

**Expected Result:** The registration is unsuccessful

**Actual Result:** The registration was a success

**Possible improvements:** The system should ensure that users are not registered to the application if their given email address is already been used by another user. This is important since email addresses are used to sign into the application.

Total Mark: 4.5/10

**Additional Comments**: Since almost half of the registration tests failed, the awarded mark out of ten was reduced to five and a half. This mark was then reduced by one since other improvements such as more feedback could be added in order to improve the registration process.

### User Login

Test Case 1

**Action:** Fill out all of the user login details with correct data

**Expected Result:** The user will be logged in successfully

**Actual Result:** The login was a success; a message is displayed to the user that they have logged in successfully

**Possible Improvements:** Instead of the application taking the user to the navigation page once they have logged in, they could instead be taken to a homepage.

Test Case 2

**Action:** All login input fields are left blank

**Expected Result:** The login is successful

**Actual Result:** The login was not a success, the input boxes glow red to indicate that they should be filled in in order to login

**Possible Improvements:** The user could also be notified by means of an alert which indicates why the login was unsuccessful

Test Case 3

**Action:** Fill out the user login details with a correct username and an incorrect password

**Expected Result:** The login is not successful

**Actual Result:** The login was not a success, a message is displayed which states that either the email address or password were incorrect

Total Mark: 9/10

**Additional Comments**: Since the actual results of all there test cases were the same as the expected results, the sign in should be awarded full marks. However, since the sign in can still be improved by giving the user more feedback when data is left blank, only 9/10 was awarded as there is still room for improvement.

### Edit Profile

Test Case 1

**Action**: Update the user details and fill out all required input fields

**Expected Result**: The profile update is successful

**Actual Result**: The profile update is successful and the user is notified of the successful profile update.

**Possible Improvements**: Once the profile has been updated, the application remains on the update profile screen. As a possible improvement, the application could navigate back to the menu instead.

Test Case 2

**Action**: Update the user details and omit the details in one of the required input fields

**Expected** **Result:** The profile update process is not completed.

**Actual Result**: Upon clicking the “Update profile” button, a red border appears around the empty input field, and the profile update fails.

**Possible Improvements**: A possible improvement would be to notify the current user by means of an alert indicating to them why the profile update failed.

Test Case 3

**Action**: Update the user details with an invalid email address

**Expected** **Result:** The profile update process is not completed.

**Actual Result**: The update is a success even though the password is not valid

**Possible Improvements**: The email address of the user should be validated

Total Mark: 5/10

**Additional Comments**: The mark awarded for this module is 5/10 since the process of updating one’s profile was not a completely uniform process. This is mainly because the user has to navigate to a different page if they wish to update their password. Marks were also lost since one of the test cases failed. A possible improvement could be to add an input field to the “Edit Profile” page for the user to change their password.

### Delete Profile

N/A

## GIS (GIS Management)

### View GIS Data

Test Case 1

**Action**: The admin user presses the “Manage GIS” button

**Expected Result**: The application displays an interface for the admin user to manage locations.

**Actual Result**: The application displays a list of location names. It is assumed that this is a representation of GIS objects.

**Possible Improvements**: The list of GIS locations displayed could also include the GPS coordinates of the location to the admin user.

Total Mark: 2/10

**Additional Comments**: The application is intended to display an interface which an admin user can use to manage GIS locations, but instead it only provides a list of locations and no options to make any changes to these objects.

### Add GIS Data

N/A

### Edit GIS Data

N/A

### Remove GIS Data

N/A

## Points of Interest (Location Access)

### Search Location

Test Case 1

**Action**: The search icon is pressed with the intent of searching for a location on the map

**Expected Result**: The application displays an input field in which the user can enter a location name and search for it

**Actual Result**: The application displays a list of location names.

**Possible Improvements**: The application could offer a search bar which the user can use to search for a specific location.

Total Mark: 2/10

**Additional Comments:** The absence of a search bar when searching for a location could lead to a very inconvenient experience for the user, especially if the user has a large list of saved locations.

### Save Location

N/A

### Get Current Location

Test Case 1

**Action:** The “Get Current Location” icon is pressed by the user.

**Expected Result:** The application will mark the user’s current location on the map

**Actual Result:** The application marks a location on the map which is not the current user’s location

**Possible Improvements:** A possible improvement would be to mark the user’s correct location on the map

Final Mark: 2/10

**Additional Comments:** The application marks a location on the map, although this locations is not the correct location. This would lead to incorrect locations being saved, and could also affect the process of navigating from the users current location to another desired location.

## Points of Interest (Location Management)

### View Locations

N/A

### Add location

N/A

### Modify Location

N/A

### Remove Location

N/A

## Navigation

### Navigate to Location

N/A

### Save Preferences

N/A