

Team Pants / Attire Testing Plan

Overview:

As Attire is a graphical-interface based application, we will be employing recorded input testing to test the user level experience of the application. This testing will be broken down by each page of the application, with individual tests applying to individual controls (ie. buttons, links).

Where possible, we have designed our application to minimize the need for user-input validation. We have done this by utilizing elements built into xaml such as ComboBox which, for options such as location or clothing-preference, provides a drop-down menu of pre-listed options for the user to choose from. This prevents the user from inputting invalid information, and simplifies input validation, especially for fields such as location which might have many potential inputs and variations on such.

It should also be noted that many of the information fields are required to be completed when creating an account. An account cannot exist without information having been selected for fields such as 'location.' Therefore, there is no situation possible where the user can, for example, 'Apply Changes' on the settings page without a selection in a given field - which is why we have not tested for such situations.

In order to perform this type of user action testing, the user input (keystrokes, clicks, etc.) will be recorded and played back using a testing utility compatible with Visual Studio called [Windows Application Driver](#), (specifically the UI Recorder Tool component) which will enable us to record a sequence of actions performed in the GUI and evaluate the result.

Settings Page Scenarios:

Location Change Applied:

1. User navigates to settings page
2. User changes 'Location' from any location to any other location using the provided ComboBox
3. User clicks 'Apply Changes'
4. The Home Page loads, and the data displayed should now represent the temperature data and corresponding recommendation for the new location

Location Change Not Applied:

5. User navigates to settings page

6. User changes 'Location' from any location to any other location using the provided ComboBox
7. User clicks 'Back To Home Page' without clicking 'Apply Changes'
8. The Home Page loads, and the data displayed should not have changed from the data previously displayed

Clothing Preference Change

1. The current temperature is 20 degrees celsius, and the user's 'Clothing Preference' is 'Dress Moderately' or warmer
2. User navigates to settings page
3. User selects a different (cooler) option from the 'Clothing Preferences' ComboBox
4. User clicks 'Apply Changes'
5. The Home Page loads and the Attire recommendation displayed should change from pants to shorts

Temperature Scale Change:

1. User navigates to the settings page
2. User changes the selection in the 'Celsius / Fahrenheit' from Celsius to Fahrenheit (or vice versa)
3. User click's 'Apply Changes'
4. The Home Page loads, and the temperature information is now displayed in Fahrenheit (or vice versa).

Change Password:

1. User navigates to the settings page
2. User clicks on the 'Change Password' button
3. The 'Forgot Password' page loads

Log out:

1. User navigates to the settings page
2. User clicks the 'Log Out' button
3. The Log In page loads and the user's account is no longer signed in

Back To Home Page:

1. User navigates to the settings page
2. User clicks the 'Back To Home Page' button
3. The Home Page loads

Home Page Scenarios:

Change Current Location:

1. User Login is valid, home page loads
2. User clicks current location bar
3. Drop down menu appears
4. User selects new location
5. Homepage updates to represent new location

Go to Settings:

1. User login is valid, home page loads
2. User clicks settings button
3. The settings page loads

Go to Forecast:

1. User login is valid, home page loads
2. User clicks forecast button
3. Forecast page loads

Weather Images:

Sunny day: Sunshine image displayed on home page

Cloudy day: Cloud image displayed on home page

Rainy day: Cloud with raindrops image is displayed on home page

Snowy day: Snow cloud image is displayed on home page

Freezing day: Snowflake image is displayed on home page

Clothing Images:

Each user will have their own warmth preferences that will be considered for the image to be displayed. We will have 8 different clothing images where combinations will be displayed.

1. Shorts
2. Pants
3. Snow pants
4. T-shirt
5. Long sleeve shirt
6. Sweatshirt
7. Rain jacket
8. Winter Jacket

For example, If a user dresses on the warmer side the following would be displayed

1. Cloudy & Temperature = 10°C: Pants and sweatshirt image displayed on homepage
2. Sunny & Temperature >20°C: Shorts and t-shirt image displayed on homepage
3. Snowy & Temperature < 0°C: Winter jacket and snowpants image displayed on homepage
4. Rainy & Temperature = 5°C: Rain jacket and pants image displayed on homepage

Login Page Scenarios:

Forgot password link:

Valid usage:

1. User clicks “forgot password” hyperlink.
2. User is redirected to the forgot password page.

Invalid usage:

1. User right clicks “forgot password” hyperlink
 2. Nothing happens.
-
1. User middle clicks “forgot password” hyperlink
 2. Nothing happens.

Create account link:

Valid usage:

1. User clicks “create account” hyperlink.
2. User is redirected to the account creation page.

Invalid usage:

1. User right clicks “create account” hyperlink
 2. Nothing happens.
-
1. User middle clicks “create account” hyperlink
 2. Nothing happens.

Valid Logins:

Scenario 1: using username to login.

1. User enters “myusername” into username/email field.
2. User enters “mypassword” into password field.
3. User clicks login button.
4. Login is validated
5. User is forwarded to “Home page”.

Scenario 2: using email to login

1. User enters “[myname@email.com](#)” into username/email field.
2. User enters “mypassword” into password field.
3. User clicks login button.
4. Login is validated
5. User is forwarded to the homepage

Invalid Logins:

Scenario 1: unknown username

1. User enters "notRealUser" into username/email field.
2. User enters "mypassword" into password field.
3. User clicks login button.
4. Login is invalid.
5. Login page refresh and displays text saying "Invalid username/password"

Scenario 2: unknown email

1. User enters "notReal@email.com" into username/email field.
2. User enters "mypassword" into password field.
3. User clicks login button.
4. Login is invalid.
5. Login page refresh and displays text saying "Invalid username/password"

Scenario 3: invalid password

1. User enters "RealUser" into username/email field.
2. User enters "wrongPass" into password field.
3. User clicks login button.
4. Login is invalid.
5. Login page refresh and displays text saying "Incorrect password. If you forgot your password, [click here](#)" (where click here is a hyperlink to the forgot password page).

Scenario 4: empty username / space username

1. User enters ""/ " " into username/email field.
2. User enters "mypassword" into password field.
3. User clicks login button.
4. Login is invalid.
5. Login page refresh and displays text saying "You cannot have an empty username, please try again"

Scenario 5: empty password / space password

1. User enters "RealUser" into username/email field.
2. User enters ""/ " " into password field.
3. User clicks login button.
4. Login is invalid.
5. Login page refresh and displays text saying "Invalid username/password"

Scenario 6: empty username and password

1. User enters "" into username/email field.
2. User enters "" into password field.
3. User clicks login button.
4. Login is invalid.
5. Login page refresh and displays text saying "please enter username and password"

Scenario 7: special character username or password

1. User enters "\$\$_\$" into username/email field.
2. User enters "\(* . *)/" into password field.
3. User clicks login button.
4. Login is invalid.
5. Login page refresh and displays text saying "Invalid username/password"

Notes on invalid entries:

We don't want to give away too much information for the invalid login prompts as this could be a vulnerability to the user's accounts. Instead we keep it basic and just prompt them to enter their username and password again.

Create Account Page

Scenario-1: special characters for username and password

Valid case : Unique set of username is selected which doesn't exist in database

User entered the email address to create an account and found that the user is new to the system and the email entered is not there in the system, so the user is prompted to the next column of choosing a password.

Invalid case : The user already had an account but still goes on creating an account page other than going on login. The user finds that the field says the account already exists and doesn't allow to do anything next.

Valid case : the email address includes @ and a valid already existing mail platform's url.

Invalid case : If the user enters the email address which doesn't exist or enters something other than the email address

Like, xusernamegmail.com is an invalid case since it misses the @

123)\$@gmail.com is invalid because no such username will exist.

[Username@12334.com](#) is invalid because there is no such mail platform.

Scenario 2: When the password is not according to the protocols it should say a user to choose a password according

Valid case : Its a combination of Capital and small letters with digits and special characters

Example : Username12@ is valid since it covers all the things

Invalid case : noname is invalid since it misses Capital letter, digits and Special characters

Scenario 3: The password you entered doesn't confirms the second time it is asked to re enter.

Valid case: The password matches with the password you entered above and the user is good to go in proceeding with the next option.

Invalid case: The password doesn't match with the user entered password and alerts the user to re enter it in order to match with the above pattern

Scenario 4: Choosing the default location

Valid case: The user uses the platform option to auto detect the current location or set a default location at the beginning of creating the account.

Invalid case: The user chooses the wrong option from the location drop down which shows the user incorrect weather data whenever the user opens the application.

Scenario 5: Choosing the clothing preferences

Valid case: User knows what to choose in the clothing options and picks the right one from the beginning.

Invalid case: The user chose pants instead of shorts in summer can make user see the wrong output in the summer season.

Scenario 6: Submit option

Valid case: User sees all the information is correct and the user is ready in playing around with the application so the user hits the submit button.

Invalid case: The user forgets about clicking the button and the data after a while gets erased or vanished and the user has to input all the data all over again.

Forecast Page Scenarios

The forecast page doesn't offer much in terms of user interactions. The forecast weather information that is shown is based on the user's location preference in their profile. For that reason testing the Forecast page will be done by referring to the users profile page to determine their location and temperature unit preferences; then comparing that to the results shown on the Forecast page. The location for the forecast should always match the profile location preference.

For Forecast page there should only be one scenario:

User Navigates to the Forecast Page

The city being forecast should match the city in profile

The temperature units (Celsius/Fahrenheit) should match the profile preference

User Changes City Preference

Forecast page should show new city weather forecast but same units

User Changes Temperature units Preference

Forecast page should use alternate temperature unit but show same city forecast

User Changes both Temperature & City Preference

Forecast page should show alternate temperature units and new city weather forecast

Forgot Password Page Scenarios

Only two actions the user can take: go back to the login screen, or enter username associated with their account to retrieve login credentials.

Back to Login Page

User clicks button 'Back to Login'

The login page is loaded

The username & password fields are empty

Associated Username Entered

User enters a valid username and clicks button to retrieve password

Database is checked and matching username is found

Email is sent to associated username's email address with password info

Unassociated Email Entered

User enters an email that does not exist in the database

Database is checked no match

Forgot Password page is reloaded with error message 'Email not associated with an account'