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| **Tester** | Ethan Hor Sheng Jian |
| **Test type** | Unit |
| **Component** | User Interface (UI) |
| **Number of test suites** | 2 |
| **Number of test cases** | 18 |
| **Status** | Complete |
| **Test file** | main.py |
| **Date of completion** | 24/9/2021 |

Testing the functionality of the UI

Rows highlighted yellow indicate test cases that have found issues present in the UI

# Test suite 1 (31/8/2021)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test case ID | Test case description | Test data/setup | Expected Result | Actual Result | Pass/Fail |
| 1 | Logging in without entering information | Pressing the Login button without entering user credentials | Error message appears | Error message appears | Pass |
| 2 | Logging in by simply entering information | Pressing the Login button after entering random credentials for both username and password | Error message appears | Error message appears | Pass |
| 3 | Logging in by entering the correct credentials | Pressing the Login button after entering the correct username and password | Login is successful. UI transitions to Home screen. | Login is successful. UI transitions to Home screen. | Pass |
| 4 | Exit button | Pressing the exit button wherever it is present | Program terminates itself  after exit button is pressed | Program terminates itself  after exit button is pressed | Pass |
| Test case ID | Test case description | Test data/setup | Expected Result | Actual Result | Pass/Fail |
| 5 | Logout button | Pressing the logout button | UI transitions back to the Login screen | UI transitions back to the Login screen | Pass |
| 6 | Starting the main algorithm with appropriate inputs | Pressing the start button after selecting at least one base/ensemble predictor and uploading one file | UI transitions to the feature selection screen | UI transitions to the feature selection screen | Pass |
| 7 | Starting the main algorithm without any inputs | Pressing the start button without selecting anything | Error message appears | UI transitions to the feature selection screen | Fail |
| 8 | Starting the main algorithm with appropriate inputs | Pressing the start button after selecting at least one base/ensemble predictor and uploading one file | UI transitions to the feature selection screen | UI transitions to the feature selection screen | Pass |
| 9 | Reports Tab | Pressing the reports tab button | UI transitions to the Reports Tab | UI transitions to the Reports Tab | Pass |
| 10 | Main Algorithm Tab | Pressing the Main Algorithm tab button | UI transitions to the Main Algorithm Tab | UI transitions to the Main Algorithm Tab | Pass |
| 11 | About Us Tab | Pressing the About Us tab button | UI transitions to the About Us Tab | UI transitions to the About Us Tab | Pass |

# Test suite 2 (19/9/2021)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test case ID | Test case description | Test data/setup | Expected Result | Actual Result | Pass/Fail |
| 1 | Logging in without entering information | Pressing the Login button without entering user credentials | Error message appears | Error message appears | Pass |
| 2 | Logging in by simply entering information | Pressing the Login button after entering random credentials for both username and password | Error message appears | Error message appears | Pass |
| 3 | Logging in by entering the correct credentials | Pressing the Login button after entering the correct username and password | Login is successful. UI transitions to Home screen. | Login is successful. UI transitions to Home screen. | Pass |
| 4 | Exit button | Pressing the exit button wherever it is present | Program terminates itself  after exit button is pressed | Program terminates itself  after exit button is pressed | Pass |
| Test case ID | Test case description | Test data/setup | Expected Result | Actual Result | Pass/Fail |
| 5 | Logout button | Pressing the logout button | UI transitions back to the Login screen | UI transitions back to the Login screen | Pass |
| 6 | Upload button | Pressing the upload button | A window pops up, letting the user upload the files they want | A window pops up, letting the user upload the files they want | Pass |
| 7 | Remove Selected Files button | Pressing the Remove Selected Files button | Selected uploaded files are cleared from the screen | Nothing happens | Fail |
| 8 | Starting the main algorithm with appropriate inputs | Pressing the start button after selecting at least one base/ensemble predictor and uploading one file | UI transitions to the feature selection screen | UI transitions to the feature selection screen | Pass |
| 9 | Starting the main algorithm without any inputs | Pressing the start button without selecting anything | Error message appears | Error message appears | Pass |
| Test case ID | Test case description | Test data/setup | Expected Result | Actual Result | Pass/Fail |
| 10 | Starting the main algorithm with all inputs excluding the selection of predictors | Upload datasets and input values for K-fold and feature selection reduction, input a prediction file name, then press the start button | Error message appears, telling user to select predictors | Error message appears, telling user to select predictors | Pass |
| 11 | Starting the main algorithm with all inputs excluding the input of feature selection reduction | Upload datasets, input a prediction file name, input values for K-fold and select predictors, then press the start button | Error message appears, telling user to input a value for the feature selection reduction field | Error message appears, telling user to input a value for the feature selection reduction field | Pass |
| 12 | Starting the main algorithm with all inputs excluding the input of k-fold | Upload datasets, input values for feature selection reduction and select predictors, input a prediction file name, then press the start button | Error message appears, telling user to input a value for the k-fold field | Error message appears, telling user to input a value for the k-fold field | Pass |
| 13 | Starting the main algorithm with all inputs, but without uploading any datasets | Input values for k-fold and feature selection reduction, input a prediction file name, select predictors, then press the start button | Error message appears, telling user to upload at least one dataset | Error message appears, telling user to upload at least one dataset | Pass |
| 14 | Starting the main algorithm with all inputs, but upload a file with an incompatible file format | Input values for k-fold and feature selection reduction, input a prediction file name, select predictors, upload a .pdf file, then press the start button | Error message appears, telling user to upload a valid file | UI transitions to the feature selection screen | Fail |
| Test case ID | Test case description | Test data/setup | Expected Result | Actual Result | Pass/Fail |
| 15 | Starting the main algorithm with all inputs, but leave the field for the CSV file name empty | Input values for k-fold and feature selection reduction, select predictors, upload valid csv files, then press the start button | Error message appears, telling user to name the CSV file | UI transitions to the feature selection screen | Fail |
| 16 | Running the algorithm without any feature selection algorithm selected | After inputting everything valid and reaching the Feature selection menu screen, press the run button without selecting anything | Error message appears, informing the user to select at least one feature selection algorithm | Error message appears, informing the user to select at least one feature selection algorithm | Pass |
| 17 | Reports Tab | Pressing the reports tab button | UI transitions to the Reports Tab | UI transitions to the Reports Tab | Pass |
| 18 | Main Algorithm Tab | Pressing the Main Algorithm tab button | UI transitions to the Main Algorithm Tab | UI transitions to the Main Algorithm Tab | Pass |
| 19 | About Us Tab | Pressing the About Us tab button | UI transitions to the About Us Tab | UI transitions to the About Us Tab | Pass |

# Test suite 3 (24/9/2021)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test case ID | Test case description | Test data/setup | Expected Result | Actual Result | Pass/Fail |
| 1 | Logging in without entering information | Pressing the Login button without entering user credentials | Error message appears | Error message appears | Pass |
| 2 | Logging in by simply entering information | Pressing the Login button after entering random credentials for both username and password | Error message appears | Error message appears | Pass |
| 3 | Logging in by entering the correct credentials | Pressing the Login button after entering the correct username and password | Login is successful. UI transitions to the Home screen. | Login is successful. UI transitions to the Home screen. | Pass |
| 4 | Exit button | Pressing the exit button wherever it is present | Program terminates itself  after exit button is pressed | Program terminates itself  after exit button is pressed | Pass |
| Test case ID | Test case description | Test data/setup | Expected Result | Actual Result | Pass/Fail |
| 5 | Logout button | Pressing the logout button | UI transitions back to the Login screen | UI transitions back to the Login screen | Pass |
| 6 | Upload button | Pressing the upload button | A window pops up, letting the user upload the files they want | A window pops up, letting the user upload the files they want | Pass |
| 7 | Remove Selected Files button | Pressing the Remove Selected Files button | Selected uploaded files are cleared from the screen | Selected uploaded files are cleared from the screen | Pass |
| 8 | Starting the main algorithm with appropriate inputs | Pressing the start button after selecting at least one base/ensemble predictor and uploading one file | UI transitions to the feature selection screen | UI transitions to the feature selection screen | Pass |
| 9 | Starting the main algorithm without any inputs | Pressing the start button without selecting anything | Error message appears | Error message appears | Pass |
| Test case ID | Test case description | Test data/setup | Expected Result | Actual Result | Pass/Fail |
| 10 | Starting the main algorithm with all inputs excluding the selection of predictors | Upload datasets and input values for K-fold and feature selection reduction, then press the start button | Error message appears, telling user to select predictors | Error message appears, telling user to select predictors | Pass |
| 11 | Starting the main algorithm with all inputs excluding the input of feature selection reduction | Upload datasets, input values for K-fold and select predictors, then press the start button | Error message appears, telling user to input a value for the feature selection reduction field | Error message appears, telling user to input a value for the feature selection reduction field | Pass |
| 12 | Starting the main algorithm with all inputs excluding the input of k-fold | Upload datasets, input values for feature selection reduction and select predictors, then press the start button | Error message appears, telling user to input a value for the k-fold field | Error message appears, telling user to input a value for the k-fold field | Pass |
| 13 | Starting the main algorithm with all inputs, but without uploading any datasets | Input values for k-fold and feature selection reduction, select predictors, then press the start button | Error message appears, telling user to upload at least one dataset | Error message appears, telling user to upload at least one dataset | Pass |
| 14 | Starting the main algorithm with all inputs, but upload a file with an incompatible file format | Input values for k-fold and feature selection reduction, select predictors, upload a .pdf file, then press the start button | Error message appears, telling user to upload a valid file | After reaching the feature selection UI, running the program will cause an error message to appear, telling user to upload a valid file | Pass |
| Test case ID | Test case description | Test data/setup | Expected Result | Actual Result | Pass/Fail |
| 15 | Starting the main algorithm with all inputs, but leave the field for the CSV file name empty | Input values for k-fold and feature selection reduction, select predictors, upload valid csv files, then press the start button | Error message appears, telling user to name the CSV file | UI transitions to the feature selection screen | Pass |
| 16 | Running the algorithm without any feature selection algorithm selected | After inputting everything valid and reaching the Feature selection menu screen, press the run button without selecting anything | Error message appears, informing the user to select at least one feature selection algorithm | Error message appears, informing the user to select at least one feature selection algorithm | Pass |
| 17 | Reports Tab | Pressing the reports tab button | UI transitions to the Reports Tab | UI transitions to the Reports Tab | Pass |
| 18 | Main Algorithm Tab | Pressing the Main Algorithm tab button | UI transitions to the Main Algorithm Tab | UI transitions to the Main Algorithm Tab | Pass |
| 19 | About Us Tab | Pressing the About Us tab button | UI transitions to the About Us Tab | UI transitions to the About Us Tab | Pass |
| 20 | Instructions Tab | Pressing the Instructions tab button | UI transitions to the Instructions Tab | UI transitions to the Instructions Tab | Pass |

# Rationale (optional)

None.

# Results

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| **Screenshot 1 (Test class)** |
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| **Screenshot 2 (Test suite 1 output)** |
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