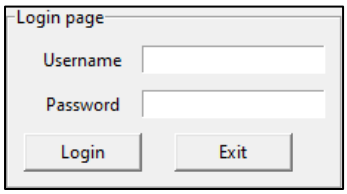
Code demonstration: Script

Step 1: Launching the application

In the program folder, select and run the file name “main.psw”. This will launch our prediction software and you will be presented with the login page.

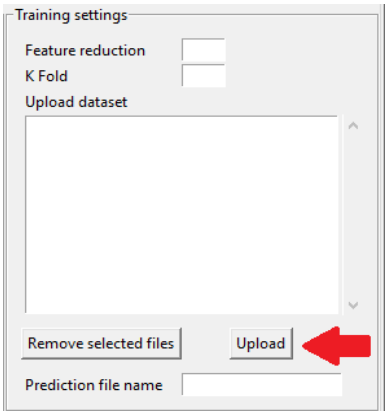
Step 2: Login



In the login page, you can use the following credentials to login to our program:

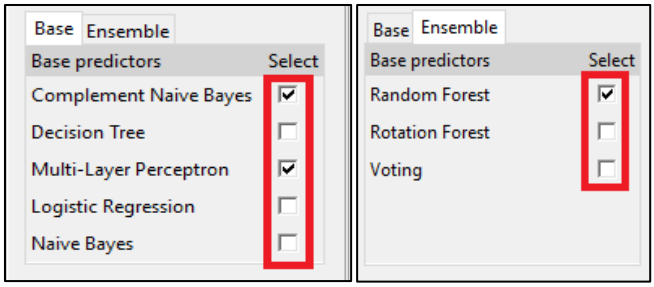
- **Username:** FIT3162
- **Password**: FYProx

Step 3: Upload dataset



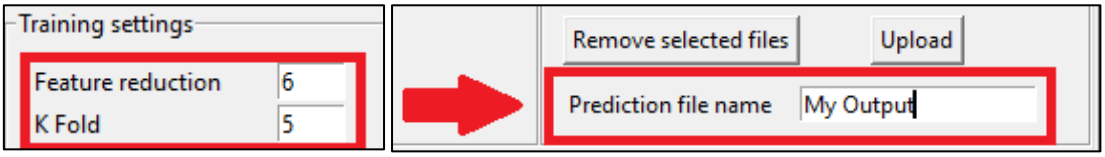
After logging in, click on the Upload button. It should open up a file directory for you. From there, select a dataset which is in the file format of .arff or .txt.

Step 4: Selecting the prediction models



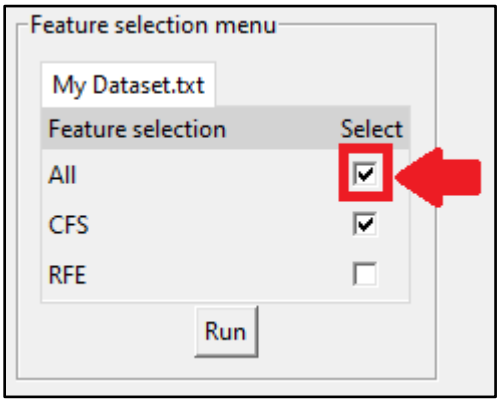
Once the dataset is selected, it will be shown in the field on the right side. After this, we should now select the prediction models we want to use. Selected prediction models are indicated with a tick in the checkbox. For this example, we will be selecting Complement Naive Bayes, Multi-Layer Perceptron and Random Forest.

Step 5: Adjusting training settings and file name



Once the models have been selected, we now want to configure the Training Settings. We will be inputting the values 6 for feature reduction, and 5 for K-fold. After doing that, we will be naming the output CSV file “My Output”. We are now ready to run the program, so the start button will be clicked on.

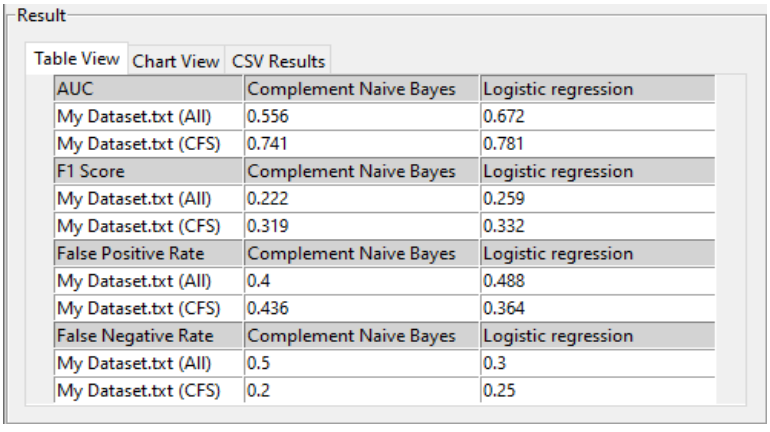
Step 6: Selecting the feature selection method



After clicking the start button, the user will be brought to the feature selection menu. For this example, we will only be using All and CFS so click on the checkboxes. Selected methods are indicated with a tick in their checkbox.

Step 7: Viewing the Results

Table View



AUC	Complement Naive Bayes	Logistic regression
My Dataset.txt (All)	0.556	0.672
My Dataset.txt (CFS)	0.741	0.781
F1 Score	Complement Naive Bayes	Logistic regression
My Dataset.txt (All)	0.222	0.259
My Dataset.txt (CFS)	0.319	0.332
False Positive Rate	Complement Naive Bayes	Logistic regression
My Dataset.txt (All)	0.4	0.488
My Dataset.txt (CFS)	0.436	0.364
False Negative Rate	Complement Naive Bayes	Logistic regression
My Dataset.txt (All)	0.5	0.3
My Dataset.txt (CFS)	0.2	0.25

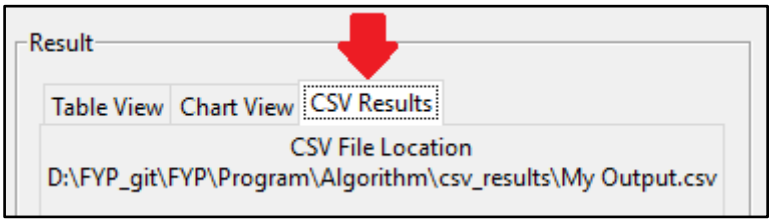
After the program finishes running, the user is taken to the results screen. This is where we can view the results through multiple methods. The main method of how the results is displayed is in a table view.

Chart View

To switch to chart view, just click on the Chart View button, then the program will switch to a separate tab, where each of the performance metrics can be viewed in the form of a chart. To view a chart, click on the "Show Chart" button for any of the performance metrics. For this example, we will be viewing the results of AUC in the form of a chart.

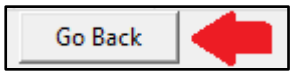
Once the "Show Chart" button is clicked on, a chart similar to the one shown above will appear on a separate window.

CSV Results



Finally, we can also view the results in its raw CSV file. Click on the "CSV Results" tab, this will show you the directory at which the CSV file of the results is located. To view the CSV file, navigate to that directory and open the CSV file with a software such as Notepad or Microsoft Excel.

Step 8: Going back to the homepage



After we are done with the program, click on the "Go Back" button to return to the homepage. This can be done at any step of the program if you feel that some settings need to be changed.