DPWEKA USER GUIDE

Download and install WEKA from http://www.cs.waikato.ac.nz/ml/weka/index.html

Download DPWeka Package from https://github.com/NidhiKat/DPWeka

From *Tools* menu in *GUI Chooser panel,* access the *PackageManager* graphial interface
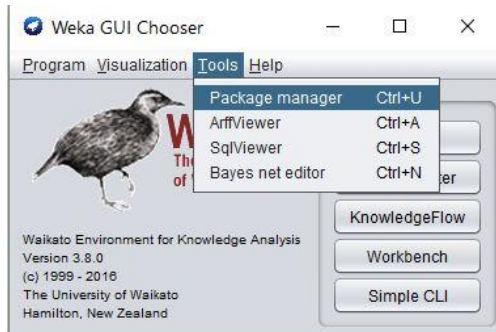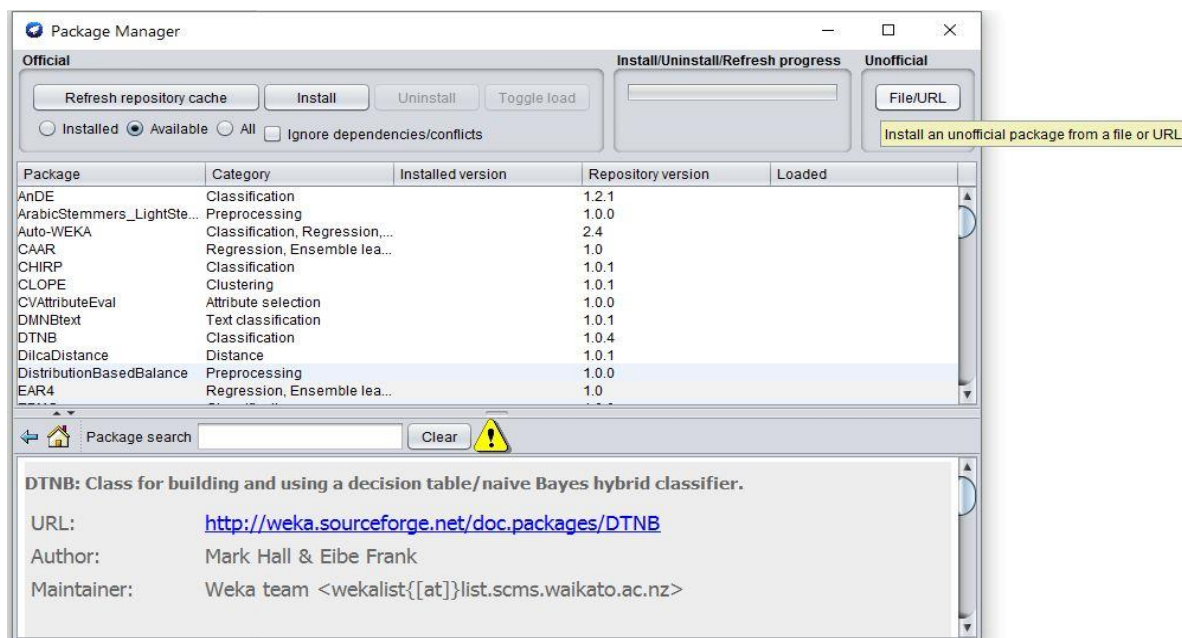

Figure 1 GUI Chooser Panel

Figure 2 WEKA Package Manager Graphical Interface

Click the button at the top right corner of the *PackageManager* and then browse to the local folder path containing the downloaded DPWeka package. Then click on the *Select* button.

The *PackageManager* shows the installation successful message. After installation, restart WEKA to access DPWeka components.
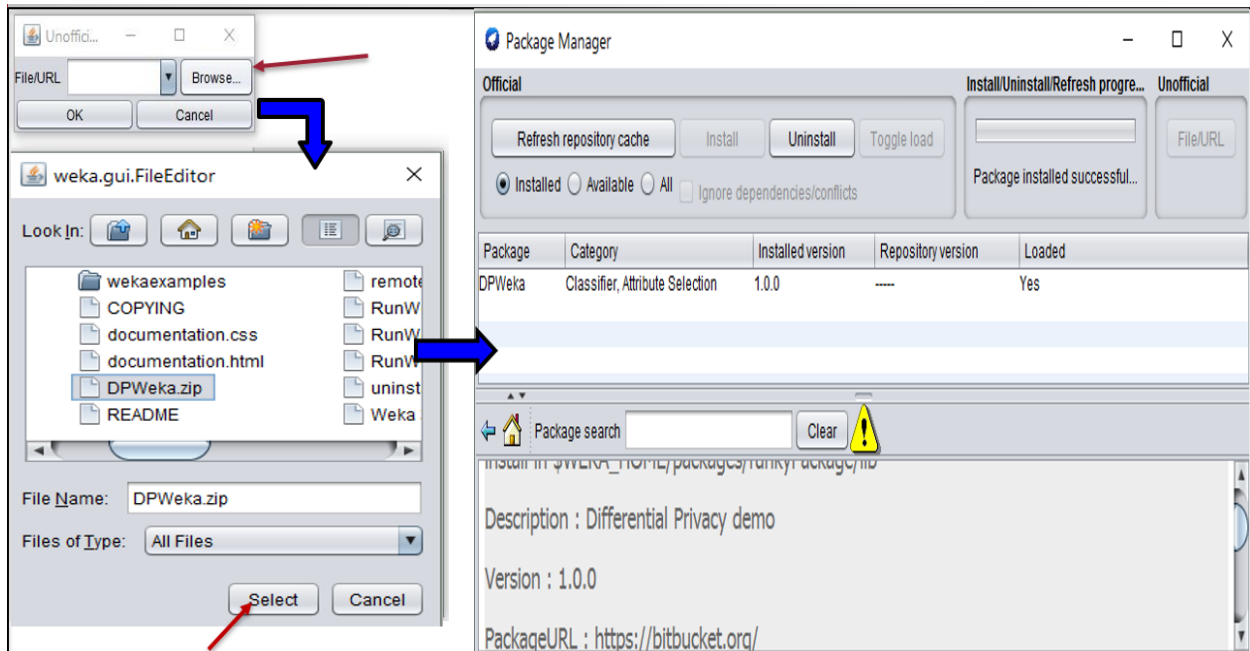
Figure 3 DPWeka Package Installation Steps

PrivStats is available as an *Attribute Evaluator* under the *Select Attributes* panel. It is also available as a *Filter* by navigating to *weka> filter> supervised >attribute > AttributeSelection* in the *Preprocess* panel of WEKA's graphical interface. In both panels, PrivStats can be used along with the *Ranker* of *Search Method* to select the desired number of relevant attributes for further analysis. Ensure that the number of attributes selected in each metrics of *PrivateStatistics* is same as the number of attributes selected in *Ranker*.
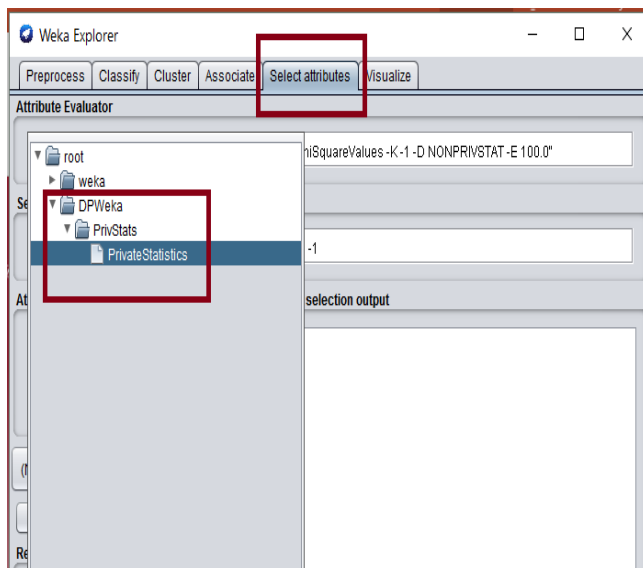

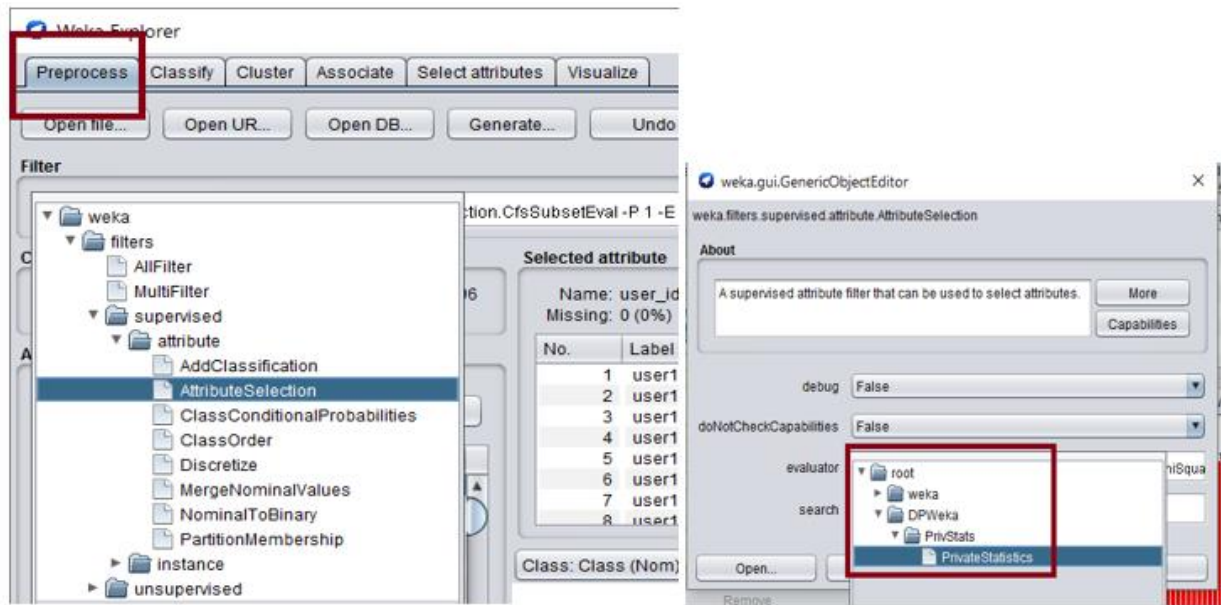*Figure 4 Access PrivStats from Select Attributes Panel*

Figure 5 Access PrivStats from Preprocess Panel

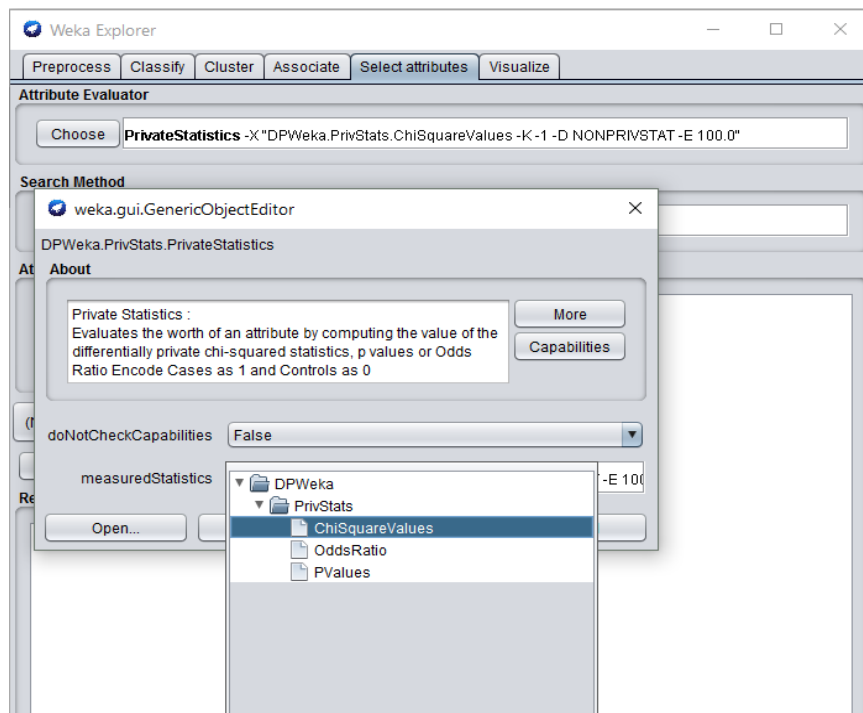From the Property sheet of PrivateStatistics, select the desired statistics.

Figure 6 Property Sheet of PrivateStatistics Method

Further assign the desired parameters within the property sheet of the selected statistics. After assigning the desired parameters in the Ranker method, click the Start button in Select Attributes panel or Apply button in Preprocess panel. The results can be seen in the console.

PrivClassifier is available under the *Classify* panel. Ensure that the dataset contains attribute values within range [-1,1] and that the label attribute is binary. Furthermore, ensure that the last attribute is the label attribute.
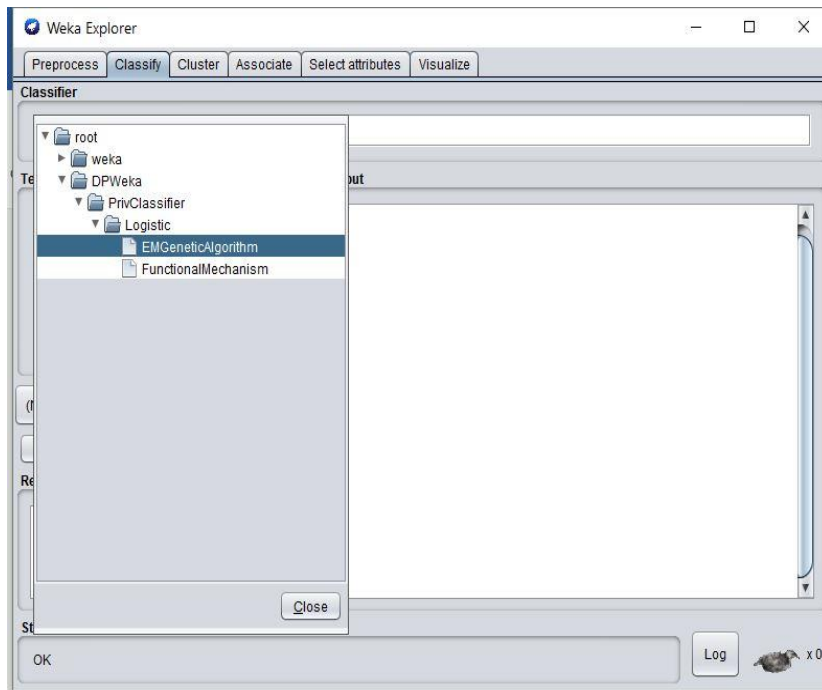

Figure 7 Access PrivClassifier from Classify panel

Select the desired algorithm and assign its parameter values. Select the desired Test options. Then, click on the *Start* button. The results are displayed on the classifier output section.
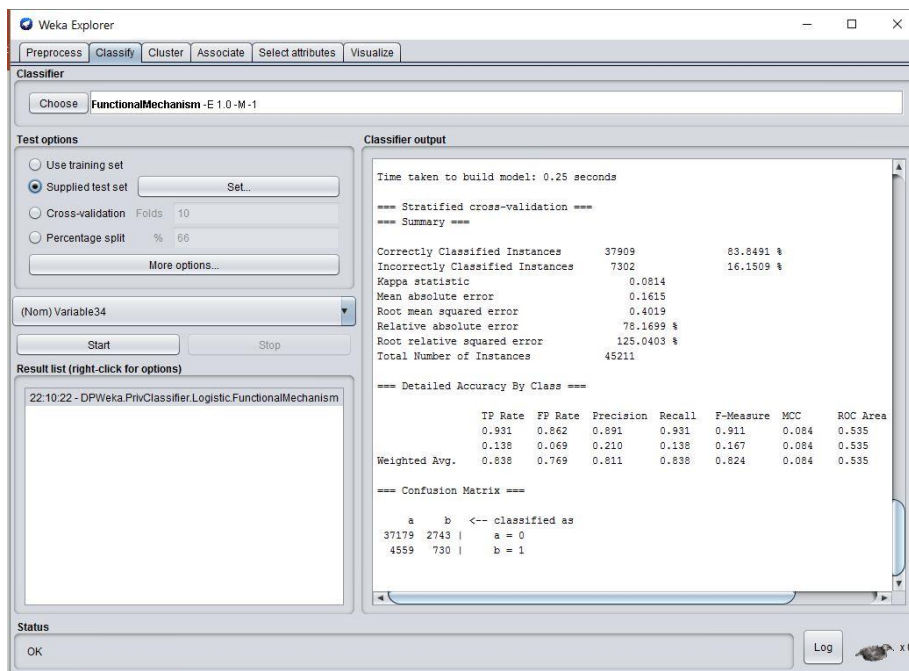

Figure 8 Output Screen for FunctionalMechanism