

Experiment :- 01

- Objective:- Installation of weka tool. and Investigation the Application interface of the weka tool.
- Introduction- Weka is a workbench that contains a collection of visualization tools and algorithm for data analysis and predictive Modeling, together with graphical user interfaces for easy access to these functions.

There are four options available on the initial screen:-

1) Explorer:- The graphical interface used to conduct experiments on raw data. After clicking the explorer button the weka explorer interface appears.

Inside the weka explorer window there are six tabs:-

→ 2) Packages :- used to choose the data file to be used by the application.

openfile:- allow for the user to select files residing on the local machine or recorded Medium.

open URL:- provides a mechanism to recall a file or data source from a different location specified by user

open Database:- allows the user to retrieve files or data from a database source provided by user

Student Name: Roll No.:

Experiment No.: Date:

- Classify:- used to test and train different learning schemes on the preprocessed ~~as~~ data file under experimentation.
 - Cluster:- used to apply different tools that identify clusters within the data file.
 - Association:- used to apply different rules to the data file that identify association within the data.
 - Select attribute:- used to apply different rules to general changes based on selected attribute inclusion or exclusion from the experiment.
 - Visualize:- used to see what the various manipulation produced on the dataset in a ~~so~~ format, in scatter plot and bar graph output.
- 2 Experiment:- This option allows user to conduct different experimental variations on a dataset and perform statistical Manipulation.
- ~~Result destination~~
 - ~~Experiment type~~
 - ~~Iteration control~~
 - ~~Algorithm~~

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Knowledge flows- Basically the same functionality as Explorer with drag and drop functionality.

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Simple CLI- provides user without graphic interface option the ability to execute commands from a terminal window.

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Viva Questions-

Q1

How can weka be significant tool for data analysis?

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Weka is a powerful open-source tool for data analysis and Machine learning, offering a user-friendly interface and a wide range of algorithm for classification, clustering, regression and more. It supports data preprocessing, visualization and Model evaluation making it ideal for exploring and analyzing datasets.

Q2

What are the constraints of weka?

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Scalability of weka struggle with

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Memory intensive

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file format dependency

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algorithm limitation

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Lack of real-time processing

Q3

Enlist 5 applications of weka software?

→ 5 application of WEKA are:-

- (1) date preprocessing
- (2) classification and prediction
- (3) clustering analysis
- (4) Association rule mining
- (5) Educational research purpose.

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