

# Hands-On Labs

# Data Mining: WEKA

## Assignment #1

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Choose three distinct datasets from the UCI Machine Learning Repository—one for a binary classification task, one for a multi-class classification task, and one for an estimation (regression) problem.

For each dataset, complete the following steps:

**01**

## Dataset Analysis

- Select a dataset and study it with your colleague.
- Write a short report that describes the problem, including the dataset's specifications such as attributes, attribute values, and the target variable (class to learn for classification or value to estimate for regression).

**02**

## Data Preparation

- Prepare the input file in the rtf format to ensure compatibility with the WEKA tool.

**03**

## Model Development

- Use the WEKA tool to analyze the dataset and develop an appropriate model (classification for the binary and multi-class datasets; regression for the estimation dataset).
- Discuss your findings, including the model's accuracy and any other relevant evaluation metrics.

Please refer to the UCI Machine Learning Repository for dataset selection:

<http://archive.ics.uci.edu/ml/index.php>

Collaborate with your colleague to complete all parts of the assignment and ensure your report clearly documents your methodology, analysis, and insights.