Data Analytics Practicals

# PRACTICAL 1: Introduction to Excel

A. Perform conditional formatting on a dataset using various criteria.

B. Create a pivot table to analyse and summarize data.

C. Use VLOOKUP function to retrieve information from a different worksheet or table.

# PRACTICAL 2: Data Frames and Basic Data Pre-processing

A. Read data from CSV and JSON files into a data frame.

B. Perform basic data pre-processing tasks such as handling missing values and outliers. Code:

# PRACTICAL 3: Feature Scaling and Dummification

A. Apply feature-scaling techniques like standardization and normalization to numerical features.

B. Perform feature Dummification to convert categorical variables into numerical representations.

# PRACTICAL 4: Hypothesis Testing

Conduct a hypothesis test using appropriate statistical tests (e.g., t-test, chi-square test).

# PRACTICAL 5: ANOVA (Analysis of Variance)

Perform one-way ANOVA to compare means across multiple groups.

Conduct post-hoc tests to identify significant differences between group means.

# PRACTICAL 6: Regression and its Types

# PRACTICAL 7: Logistic Regression and Decision Tree

# PRACTICAL 8: K-Means Clustering

# PRACTICAL 9: Principal Component Analysis (PCA)

# PRACTICAL 10: Data Visualization and Storytelling