Assignment1

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- Demonstrate the use of python object in data analysis.
- Demonstrate any two data visualization techniques supported by Matplotlib

Assignment2

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Demonstrate loops and vectorization for missing values.
- Detect and remove outliers (implement any method of outlier detection).
- Demonstrate any two data visualization techniques supported by Matplotlib

Assignment3

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Demonstrate importing and exporting data using python object.
- Detect and remove outliers (implement any method of outlier detection).
- Demonstrate any two data visualization techniques supported by Matplotlib and Seaborn.

Assignment4

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Implement and compare the outcomes of any two methods of outlier detection.
- Demonstrate any two data visualization techniques supported by Seaborn.

Assignment5

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- Calculate the percentile, mean and standard deviation of the appropriate columns.
- Demonstrate any four data visualization techniques supported by Seaborn.

Assignment6

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- Validating & Exploring Data Manipulations (Summarizing, Sorting, Sub- setting, Merging, joining)
- Demonstrate any two data visualization techniques supported by Matplotlib

Assignment7

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- Frequency distributions
- Demonstrate any two data visualization techniques supported by Matplotlib.

Assignment8

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- Normal Curves
- Demonstrate any two data visualization techniques supported by Matplotlib and Seaborn

Assignment9

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- Statistical hypothesis generation and testing
- Demonstrate any two data visualization techniques supported by Matplotlib and Seaborn

Assignment10

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- Chi-Square test
- Demonstrate any two data visualization techniques supported by Matplotlib and Seaborn

Assignment11

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- t- Test
- Demonstrate any two data visualization techniques supported by Matplotlib and Seaborn

Assignment12

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- Analysis of variance

- Demonstrate any two data visualization techniques supported by Matplotlib and Seaborn

Assignment13

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- Correlation analysis
- Demonstrate any two data visualization techniques supported by Matplotlib and Seaborn

Assignment14

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- A simple linear regression model
- Evaluate the model using mean absolute error and mean squared error.

Assignment15

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- Maximum likelihood
- Demonstrate any two data visualization techniques supported by Matplotlib and Seaborn

Assignment16

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- K-NN Classification technique
- Evaluate the model using precision, recall, f1-score and confusion matrix.

Assignment17

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- SVM Clustering technique
- Evaluate the model using mean absolute error and mean squared error.

Assignment18

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.

- Detect and remove outliers (implement any method of outlier detection).
- Association rules analysis
- Demonstrate any two data visualization techniques supported by Matplotlib and Seaborn

Assignment19

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- SVM Classification technique
- Evaluate the model using precision, recall, f1-score and confusion matrix.

Assignment20

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- K-means Clustering technique
- Evaluate the model using mean absolute error and mean squared error.

Assignment21

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- Logistic regression technique
- Analyze result of the above model using appropriate evaluation methods

Assignment22

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- Decision tree technique
- Analyze result of the above model using appropriate evaluation methods

Assignment23

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- Random forest technique
- Analyze result of the above model using appropriate evaluation methods

Assignment24

Download or create an appropriate dataset. Write a python program to perform the following tasks.

- Preprocess the dataset.
- Detect and remove outliers (implement any method of outlier detection).
- Neural network technique
- Analyze result of the above model using appropriate evaluation methods