**Final List of Assignments for Data Science**

**Year 2020-2021**

1. Perform the following operations using **Python** on suitable data sets,

Read a data from different formats(like csv,xls),indexing and selecting data, sort data, describe attributes of data, checking data types of each column, counting unique values of data, format of each column, converting variable data type (e.g. from long to short, vise versa), identifying missing values and fill in the missing values.

1. A. Perform the following operations using Python on the data sets

Compute and display summary statistics for each feature available in the dataset. (eg. minimum value, maximum value, mean, range, standard deviation, variance and percentiles. Data Visualization-Create a histogram for each feature in the dataset to illustrate the feature distributions., Data cleaning, Data integration, Data transformation

1. Build a Data model in Python for the dataset chosen in Assignment 1 or 2 and apply Linear Regression/Logistic Regression . Infer the result using accuracy score
2. Build a Data model in Python using any classification model (Decision Tree or Naïve Bayes )and infer the result using accuracy score .Compare different classification models (not limited to NB and DT only) with respect to feature selection and accuracy. Infer the result :which model best suit for the dataset chosen
3. Visualize the data and its outcome ( assignment no 3 and 4) in Python by plotting the various graphs Use Scatter plot, bar plot, Box plot and Histogram OR

Perform the data visualization operations using **Tableau** for the given dataset and its prediction.

1. Mini Project on data Analysis: Identify problem statement. Use Semi or unstructured data set. Define 3 to 4 objectives. Perform 1. Data Interpretation, 2. Data preprocessing, 3. Data Modeling (perform both Descriptive and Predictive analysis, Also perform Prescriptive Analysis (if required and fits for the data set)), and 4.data visualization. (Mini project is to be performed in a group of 3 to 4 students

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**Practical in Charge (TY-A1 and TY-A2 Batch)**