

Task Details:

1. Find out a dataset with having at least 5 features ($x_1, x_2, x_3, x_4, x_5, \dots$) (Hint: Google, Kaggle, UCI machine repository, openML for dataset search).
2. Do all data preprocessing steps:
 - a. Identify the data type of each feature i.e., qualitative, quantitative, etc.
 - b. Find missing values if any. Use the techniques discussed in class like replace with average etc.
 - c. Find inconsistent and duplicate observations if any and apply techniques to handle the inconsistency and redundant data.
 - d. Check if the data is skewed or normal.
 - e. If there are any outliers, remove them by applying different techniques discussed in class.
 - f. Normalize your dataset by applying different techniques like max-min, z-score etc.
 - g. Handle noise by applying data smoothing techniques.
3. After data preprocessing, apply the appropriate learning algorithm.
4. Prepare maximum one and half page analysis report, that contains:
 - a. The dataset that you are using, and the source for it. Dimensions of the dataset, and the specific dimensions that you plan to use.
 - b. All details of data preprocessing you have performed and visualization of it.
 - c. Name of the appropriate learning algorithm you've chosen along with brief comment on why you have selected it.
 - d. Mention results in visual form and comment on the performance of learning algorithm by applying accurate performance measures.
5. Note that: This is an individual task, and if any two datasets/ results/ analysis are same, it will lead to zero credit.
6. **Submission date:** Nov 6, 2022 till 11:59 pm.
7. **Deadline is hard** and any late submission wouldn't be accepted.