

Perform **Exploratory Data Analysis(EDA)** on the data-set given below.

Download the dataset from this link. [CLICK HERE TO DOWNLOAD DATASET](#)

The detailed description about the dataset can be found here. [Dataset Description](#)

Have a look at an example EDA -> [Click here for Example EDA on Haberman Dataset](#)

If you are facing any difficulty in performing EDA, follow the steps mentioned below:

Step - 1 - Introduction -> Give a detailed data description and objective

Step - 2 - Import the data and display the head, shape and description of the data.

Step - 3 - Discover and Handle missing values.

- Try to observe a pattern in missing values (This is OPTIONAL)
- Remove all the missing values by removing the rows where missing values occur
- Also remove the 'fnlwgt' column because we don't need that
- Show the percentage of rows that were removed while handling missing values

Step - 4 - Univariate Analysis -> PDF, Histograms, Boxplots, Countplots, etc..

- Find the outliers in each numerical column
- Understand the probability and frequency distribution of each numerical column
- Understand the frequency distribution of each categorical Variable/Column
- Mention **observations** after each plot.

Step - 5 - Bivariate Analysis

- Discover the relationships between numerical columns using Scatter plots, hexbin plots, pair plots, etc..
- Identify the patterns between categorical and numerical columns using swarmplot, boxplot, barplot, etc..]
- Mention **observations** after each plot.

Step - 6 - Conclusion

NOTE: Mention **observations** after each plot.

For the below mentioned step do your own research(use Google). Hints are given below.

Step - 7 - Perform feature transformation:

- For Numerical Features -> Do Column Normalization i.e. use MinMaxScaler
- For Categorical -> if more than 2 categories, use dummy variables. Otherwise convert the feature to Binary.

Submitting the Assignment -

1. Create a jupyter notebook for this assignment.
2. Upload the jupyter notebook on Github.
3. Submit the github link of the assignment on Google Classroom.