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**

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 - 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 - 4 - 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 - 5 - Research Questions
- Times of India article dated Jan 18, 2019 states that "*After doing your Computer Science Engineering if you take up jobs as a Programming Analyst, Software Engineer, Hardware Engineer and Associate Engineer you can earn up to 2.5-3 lakhs as a fresh graduate.*" Test this claim with the data given to you.
- Is there a relationship between gender and specialisation? (i.e. Does the preference of Specialisation depend on the Gender?)

Step - 6 - Conclusion
Step - 7 - (Bonus) Come up with some interesting conclusions or research questions.
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 Standardization
- For Categorical -> if more than 2 categories, use dummy variables. Otherwise convert the feature to Binary.

---------- END OF TASK----------