**ACM India and RBCDSAI, IIT Madras Joint Summer School on DS/ML/AI for Women | 1**

**Assignment 2: Data distribution and plotting libraries**

**July 12, 2022**

**Submission URL**

**Submission Deadline: 13/07/2022, 2.30 PM**

**1. Data Visualization**

Tips database is the record of the tip given by customers in a restaurant for two and a half months in the early 1990s. It contains 6 columns such as total\_bill, tip, sex, smoker, day, time, and size.

Load the dataset using:

*import seaborn as sns*

*data = sns.load\_dataset("tips")*

*data.head()*

a. Plot a scatter plot with days against the tip

b. Plot the data distribution for the total bill

c. Plot a line plot between sex and the total bill

d. Plot scatter plots between total bill and tip, color by sex, and subplot day-wise (*Hint: sns.relplot*)

e. Plot a point plot between day and tip

f. Explain your observations briefly from these plots