



Project 2 : Predicting restaurant tips using predictive analytics on Excel

Objectives

To use excel to predict restaurant tips.



Prerequisites

DIGITAL
BUSINESS

- Microsoft Excel
- Data Analysis Add-in



Industry Relevance



How this project will make you industry ready.

- Leadership
- Communication
- Problem-solving and conflict management
- Flexibility

Description



The dataset in file ***Restaurant tips dataset.xlsx*** contains tips data for different customers. The following are the features in the dataset

Sex- gender of the customer

Smoker- indicates if the customer is a smoker or not

Day- day of the restaurant visit

Time- indicate whether the tip was for lunch or dinner

Size- number of members dining

Total Bill amount- bill amount in USD

Tip- tip amount in USD

Problem Statement and Motivation

Model to **predict restaurant tips** given input values with the **mathematical equation** for predicting the value of the tips.



Task



The following project tasks are required to be performed in excel:

- Use the restaurant tips file for the **analytics** using Excel.
- Find out if there are **any missing values and clean the data**.
- Find the features that are **independent and dependent**.
- **Identify** which **predictive problem** is needed.
- **Encode the categorical variables to numeric values** using IF conditions.
- **Build an appropriate model** with the dataset.
- Calculate the **predicted and actual tips** values.
- Calculate the **RMSE(Root Mean Square Error) of the model**. RMSE is the root of the mean of square errors.

Data Sets/Materials

Link to the Dataset:

<https://github.com/Simplilearn-Edu/BA-With-Excel-Revamp-2021>



Submission Process

Minimum 1 project must be completed/passed as a part of certification unlocking criteria.



Thank You