**Draft PROPOSAL**

**What is your issue of interest (provide sufficient background information)?**

A recommender system assists in personalizing a platform and assisting users in finding what they are looking for. Visiting locations is the finest way to refresh people's minds, but the most difficult aspect is locating the attractions, potential places to stay, and eateries.

**Why is this issue important to you and/or to others?**

This is an essential issue for me and others because it is difficult to discover the best places to stay and the type of meals they require whenever they travel. Building a recommendation system that can recommend the finest attractions, hotels, and restaurants saves people a lot of time.

**What questions do you have in mind and would like to answer?**

* What are the five possible stay options to stay near a restaurant?
* What are the best attractions to visit based on timing?
* What are the two recommendations per meal per day?
* What are the restaurants recommended separately for each meal of the day?

**Where do you get the data to analyze and help answer your questions?**

For restaurants- Dataset for the project should be downloaded from [Yelp dataset challenge](https://www.yelp.ca/dataset/download)

For hotels and attractions, I have downloaded Datasets from various open-source platforms like Kaggle

**What kinds of techniques/models do you plan to use?**

1. RBM, a Deep learning technique for Attractions.
2. Matrix Factorization with ALS, a highly scalable and distributed Collaborative Filtering technique for hotels.
3. K-Means Algorithm
4. K-Nearest Neighbors

**What will be your unit of analysis and what variables/measures do you plan to use in your analysis?**

I’m going to use hotel rating, Location, Amenities, hotel name, country and locality for recommending some of the best hotels to stay and meals per day for attractions.

**How do you plan to develop/apply ML and how you evaluate/compare the performance of the models?**

My plan of action is to analyze the data and use a combination of supervised and unsupervised methods for collaborative filtering of restaurant data

**What outcomes do you intend to achieve?**

I intend to observe and learn ML model creation process and comparing various models for collaborative work and to perform and achieve Exploratory Data Analysis.