**Rate Comparison Project Documentation**

**Project Overview**

**Project Name: Travel**

**Team Members:**

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**Our problem statement:** Design a platform that allows users to compare rates across various services or products, facilitating informed decision-making for consumers.

**Introduction**

The Rate Comparison platform is a tool designed during the Hackathon by Randomize(); to assist hostel students and residents of Jaipur (in this case Manipal University Jaipur) in finding the most cost-effective and fastest modes of transportation from Jaipur to their respective hometowns.

The platform leverages Python programming language, with the web scraping tool being used – BeautifulSoup, and the live database from Rome2Rio.

It includes another version, but with a pre-defined database created in MySQL.

**Features**

1. **Input Location**: Users can input their destination (home town) to get rate comparisons for different modes of transportation.

2. **Transport Modes Shown:**

- Plane

- Train

- Car

- Bus

3. **Cost and Time Comparison**: The application fetches real-time data from Rome2Rio to provide users with cost and time comparisons for each mode of transportation.

4. **Time-Saving**: Instead of searching for prices individually, users can quickly obtain comprehensive travel information through a single search.

**5. Accuracy of data:** The use of live database by parsing URL in the code, helps provide real time prices of travel, that may fluctuate daily.

**Technologies Used**

- **Programming Language:** Python

- **Web Scraping Tool:** BeautifulSoup

- **Live Database:** Rome2Rio

- **Pre defined database:** MySQL (for the non-real-time version)

- **Library used –** mysql-connector-python

**Future Enhancements**

- Using available API keys for the real time version of the platform.

- Add a GUI for a better view of the platform.

- User authentication for personalized recommendations.

**Minor issues faced**

- The BeautifulSoup is a great tool for web scraping, but the issue with that is web scraping isn’t legally allowed by any major website.

- The website used here (Rome2Rio) thus prompts a client error (permission denied).

- This particular website doesn’t have its own API.

**Conclusion**

The Rate Comparison platform is a valuable tool for all the users especially students (in this case MUJ students and Jaipur residents), providing a quick and efficient way to compare travel options. The project aims to save time and simplify the process of finding the most economical and fastest routes all at the same place.

We are working towards improving the project more towards the real-time version, with the aim to provide the most accurate data rather than a pre-defined average.