**Project Idea:**

**Recommendation systems for Tourists** aims to make the life of Tourists easy by automating the vacation planning process with personalized recommendations for accommodation, eateries, and places of interest that suit the visitor. It also takes in user preferences and gives a detailed itinerary of sorts incorporating those preferences.

**Project Objectives:**

1. **Vacation Planning Time Reduction**: Reduce the time taken by users in planning their trips by offering them tailor made travel itineraries, thus preventing them from having to visit numerous websites.
2. **Personalized Travel Plans**: Along with the above mentioned features, we will allow the users to generate itineraries for themselves, according to a location, a budget, dates, places of interest, type of hotel, and cuisine of the restaurant.
3. **Comprehensive Recommendations**: Recommender systems can be divided into three areas:
   1. **Hotels**: Recommend 5 hotels according to the amenities climber is interested ( in-room air conditioning , wi-fi)
   2. **Attractions**: Suggest two places to visit on each day for the entire given duration: one in the morning and one in the evening.
   3. **Restaurants**: Recommend various places for all three meals on each day of travel.
4. **Data-Driven Decision Making**: Information about particular attractions, hotels, and restaurants can be scraped from necessary travel websites and datasets and this information will be relevant and current.
5. **Leveraging Advanced Recommendation Algorithms**: Deploy three recommendation systems in order to deliver better, broader and more relevant recommendations: This section focuses on using advanced recommendations:
   1. **Restricted Boltzmann Machine**: A deep learning approach for collaborative filtering.
   2. **Alternating Least Squares (ALS)**: A scalable matrix factorization technique.
   3. **Hybrid Model**: Combining K-means clustering and memory-based collaborative filtering.
6. **Understanding the customer and his/her needs:** Identify and describe customers based on their preferences with regards to attractions, amenities, and types of cuisine in order to give them the vacation they dream of.
7. **Better User Interfaces:** Improve user interfaces by providing more easy, effortless and interesting user vacation profile creation and selection, where the user would only enter some parameters and receive about 32 variants of combinations of tours and restaurant plans in about ten minutes.

This project aims to provide a **Stress-Free Vacation Planning Experience to Tourists** by making it less exhausting for them to plan the trip so that they can concentrate more on enjoying the trip.