Project Scope

1. **Objective**: Develop a prediction model to estimate the likelihood of a user booking a hotel room after visiting the hotel website.

2. **Scope**: This project will focus on analyzing user interactions with the hotel website and building a predictive model based on these interactions. The prediction model will be applicable to all types of hotels and users.

3. **Feature Selection**:

hotel	booking	lead_time	arrival_date_year	arrival_date_month	arrival_date_week_number	arrival_date_day_of_month	stays_in_weekend_nights	stays_in_week_nights	adults	...	deposit_type	agent	company	days_in_waiting_list	customer_type	adr	required_car_parking_spaces	total_of_special_requests	reservation_status	reservation_status_date

4. **Prediction Model**: Regression Model
   - We will using KNeighbourClassifier
   - Regression and other algorithms

5. **Validation Strategy**:
   ● Data will be split into training and testing sets for model validation.
   ● Cross-validation techniques will be employed to ensure model generalizability.

6. **Implementation Plan**:
   ● Step 1: Data preprocessing and feature selection
   ● Step 2: Model development and testing
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