

## PYTHON PROJECTS

### Title 1: Flight Booking System

**Description:** You are tasked with creating a flight booking system using Python. The system should allow users to search for flights, book seats, manage bookings, and generate reports. The system should handle multiple flights, seat availability, and customer bookings.

#### Features:

1. **Flight Search:** Prompt the user to enter the origin and destination airports, as well as the travel date. Validate the input to ensure it is a valid airport code and a future date.
2. **Flight Selection:** Display a list of available flights based on the search criteria. Allow the user to choose a flight by entering the flight number.
3. **Seat Selection:** Show the seat availability for the selected flight and prompt the user to choose a seat. Update the seat availability after a successful booking.
4. **Booking Confirmation:** Confirm the booking and display the booking details, including the flight information and seat number.
5. **Booking Management:** Allow users to view their bookings, cancel bookings, and make changes to their flight itinerary.
6. **Flight Reports:** Generate reports showing flight occupancy rates, popular routes, and customer booking statistics.