**AIRPORT NAVIGATION SYSTEM**

**SUBMITTED TO: PALAK AAR**

**SUBMITTED BY: BHAVIKA SOOD**

#include <stdio.h>

#include <string.h>

#define MAX\_FLIGHTS 5

#define MAX\_PASSENGERS 10

typedef struct {

    int flightNumber;

    char destination[20];

    int seats;

} Flight;

typedef struct {

    char name[30];

    int flightNumber;

} Passenger;

Flight flights[MAX\_FLIGHTS];

Passenger passengers[MAX\_PASSENGERS];

int flightCount = 0, passengerCount = 0;

void addFlight() {

    if (flightCount >= MAX\_FLIGHTS) {

        printf("Cannot add more flights.\n");

        return;

    }

    printf("Enter flight number: ");

    scanf("%d", &flights[flightCount].flightNumber);

    printf("Enter destination: ");

    scanf("%s", flights[flightCount].destination);

    printf("Enter seats: ");

    scanf("%d", &flights[flightCount].seats);

    flightCount++;

    printf("Flight added!\n");

}

void bookSeat() {

    int fnum, found = 0;

    if (flightCount == 0) {

        printf("No flights available.\n");

        return;

    }

    printf("Enter flight number: ");

    scanf("%d", &fnum);

    for (int i = 0; i < flightCount; i++) {

        if (flights[i].flightNumber == fnum && flights[i].seats > 0) {

            printf("Enter passenger name: ");

            scanf("%s", passengers[passengerCount].name);

            passengers[passengerCount].flightNumber = fnum;

            flights[i].seats--;

            passengerCount++;

            printf("Seat booked!\n");

            found = 1;

            break;

        }

    }

    if (!found) printf("Flight not found or full.\n");

}

void showReservations() {

    if (passengerCount == 0) {

        printf("No reservations yet.\n");

        return;

    }

    printf("Reservations:\n");

    for (int i = 0; i < passengerCount; i++) {

        printf("%s booked Flight %d\n", passengers[i].name, passengers[i].flightNumber);

    }

}

void menu() {

    int choice;

    printf("\n1. Add Flight\n2. Book Seat\n3. Show Reservations\n4. Exit\nChoose: ");

    scanf("%d", &choice);

    switch (choice) {

        case 1: addFlight(); break;

        case 2: bookSeat(); break;

        case 3: showReservations(); break;

        case 4: printf("Goodbye!\n"); return;

        default: printf("Invalid choice.\n");

    }

    menu();

}

int main() {

    printf("Welcome to the Airport Navigation System!\n");

    menu();

    return 0;

}