

PROJECT:RAILWAY TICKET MANAGEMENT SYSTEM

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SUBJECT-PROGRAMMING IN C

INTRODUCTION

- The *Railway Ticket Management System* is a C programming project designed to simplify the process of booking railway tickets. In traditional methods, passengers have to stand in long queues and manually fill forms to book their tickets. This system helps to automate the booking process by storing passenger details, selecting destinations, choosing trains, calculating fares, and generating tickets through a computer program.

Purpose of this Project:

- The Purpose of this Project is to simplify the ticket booking services.
- The Project aims to reduce human effort , save time , and minimize errors during manually booking.
- It also helps to understand how real world applications such as structures , functions , loops and many more.
- Overall , the system provides an efficient and user-friendly way to manage railway ticket operations.

Constraints:

- Limited Data storage
- No real time train information
- Single user access
- No online payment system
- Fixed train and Route data

Features of the system:

- View train list
- Book a ticket
- Display ticket details
- Calculate fare
- Exit the system

Syntax Concepts Used:

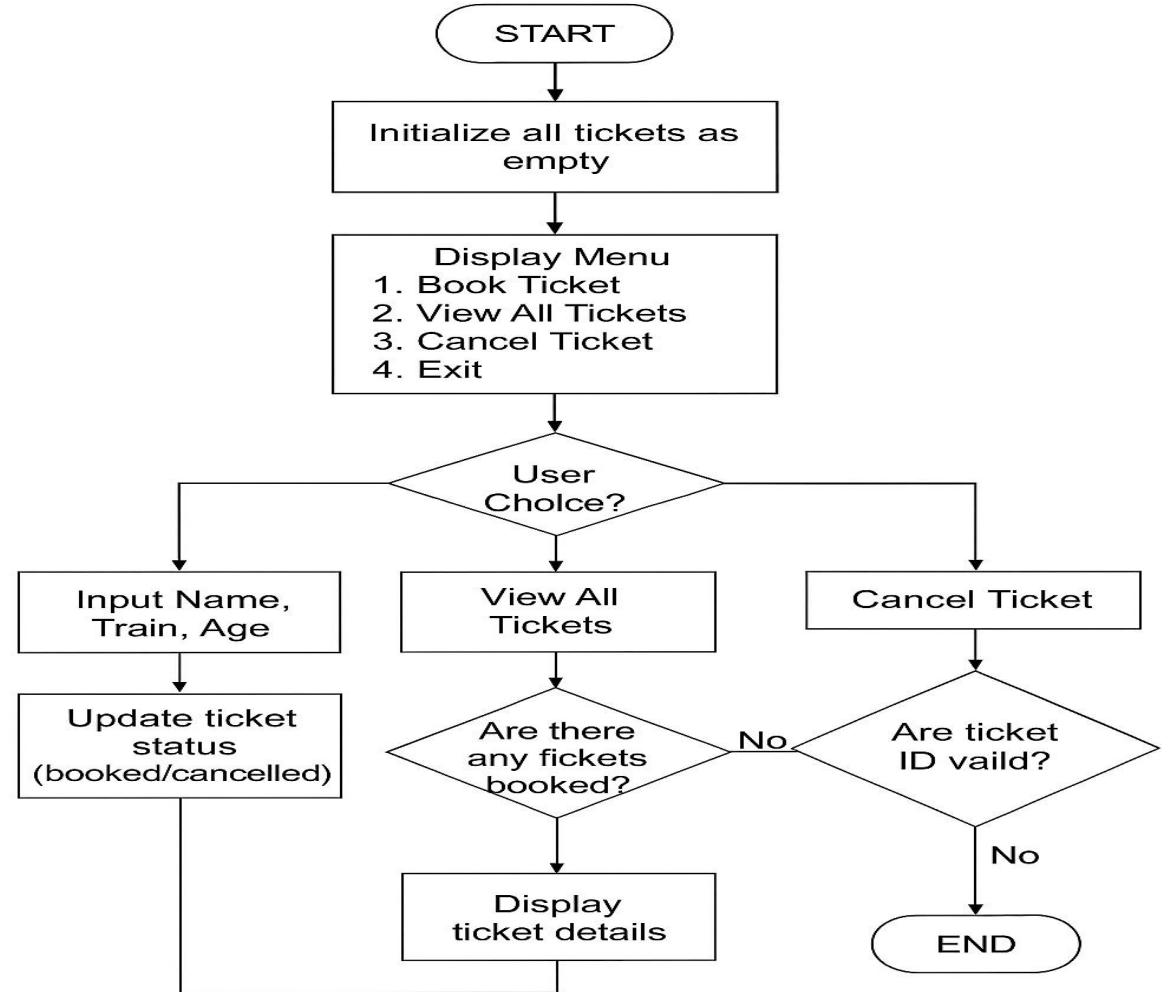
- Variables and Data types
- Input and output statements
- Conditional statements
- Loops
- Functions
- Structures
- Arrays
- Switch case

Keywords Used:

- Struct , for , while , if , else if , else .
- Int , char , #include , #define

Flowchart:

RAILWAY TICKET MANAGEMENT SYSTEM



PROGRAM:

```
#include <stdio.h>
#include <string.h>

#define MAX 5

struct Ticket {
    char name[30];
    char train[30];
    int age;
    int booked; // 1 = booked, 0 = empty
};

int main() {
    struct Ticket t[MAX];
    int choice;
    int count = 0;

    for (int i = 0; i < MAX; i++) {
        t[i].booked = 0;
    }

    while (1) {
        printf("\n===== Railway Ticket Management System =====\n");
        printf("1. Book Ticket\n");
        printf("2. View All Tickets\n");
        printf("3. Cancel Ticket\n");
        printf("4. Exit\n");
        printf("Enter your choice: ");
        scanf("%d", &choice);
```

```
        if (choice == 1) {
            if (count >= MAX) {
                printf("\nAll tickets are booked!\n");
            } else {
                printf("\nEnter Name: ");
                scanf("%s", t[count].name);

                printf("Enter Train Name: ");
                scanf("%s", t[count].train);

                printf("Enter Age: ");
                scanf("%d", &t[count].age);

                t[count].booked = 1;
                printf("\nTicket Booked! Ticket ID = %d\n", count + 1);
                count++;
            }
        }

        else if (choice == 2) {
            printf(" All Booked Tickets\n");

            int found = 0;
            for (int i = 0; i < MAX; i++) {
                if (t[i].booked == 1) {
                    printf("\nTicket ID: %d\n", i + 1);
                    printf("Name: %s\n", t[i].name);
                    printf("Train: %s\n", t[i].train);
                    printf("Age: %d\n", t[i].age);
                    found = 1;
                }
            }
        }
    }
}
```

```
        if (!found) {
            printf("No tickets booked yet.\n");
        }
    }

    else if (choice == 3) {
        int id;
        printf("\nEnter Ticket ID to cancel: ");
        scanf("%d", &id);

        if (id < 1 || id > MAX || t[id - 1].booked == 0) {
            printf("\nInvalid Ticket ID!\n");
        } else {
            t[id - 1].booked = 0;
            printf("Ticket %d cancelled.\n", id);
        }
    }

    // EXIT
    else if (choice == 4) {
        printf("\nExiting... Thank you!\n");
        break;
    }

    else {
        printf("\nInvalid choice! Try again.\n");
    }
}

return 0;
```

OUTPUT:

```
===== Railway Ticket Management System =====
```

1. Book Ticket
2. View All Tickets
3. Cancel Ticket
4. Exit

Enter your choice: 1

Enter Name: Abhinav

Enter Train Name: shatabdi

Enter Age: 18

Ticket Booked! Ticket ID = 1

```
===== Railway Ticket Management System =====
```

1. Book Ticket
2. View All Tickets
3. Cancel Ticket
4. Exit

Enter your choice: 2

All Booked Tickets

Ticket ID: 1

Name: Abhinav

Train: shatabdi

Age: 18

```
===== Railway Ticket Management System =====
```

1. Book Ticket
2. View All Tickets
3. Cancel Ticket
4. Exit

Enter your choice: 3

Enter Ticket ID to cancel: 1

Ticket 1 cancelled.

```
===== Railway Ticket Management System =====
```

1. Book Ticket
2. View All Tickets
3. Cancel Ticket
4. Exit

Enter your choice: 4

Exiting... Thank you!

Conclusion:

- • The project demonstrates basic C programming concepts.
- • It shows how a real-life system can be simulated through code.
- • Students learn structured programming, modular design, and logical flow.