

N.B.K.R INSTITUTE OF SCIENCE AND TECHNOLOGY

ONLINE TICKET BOOKING

HAVE YOUR TICKET IN YOUR HAND



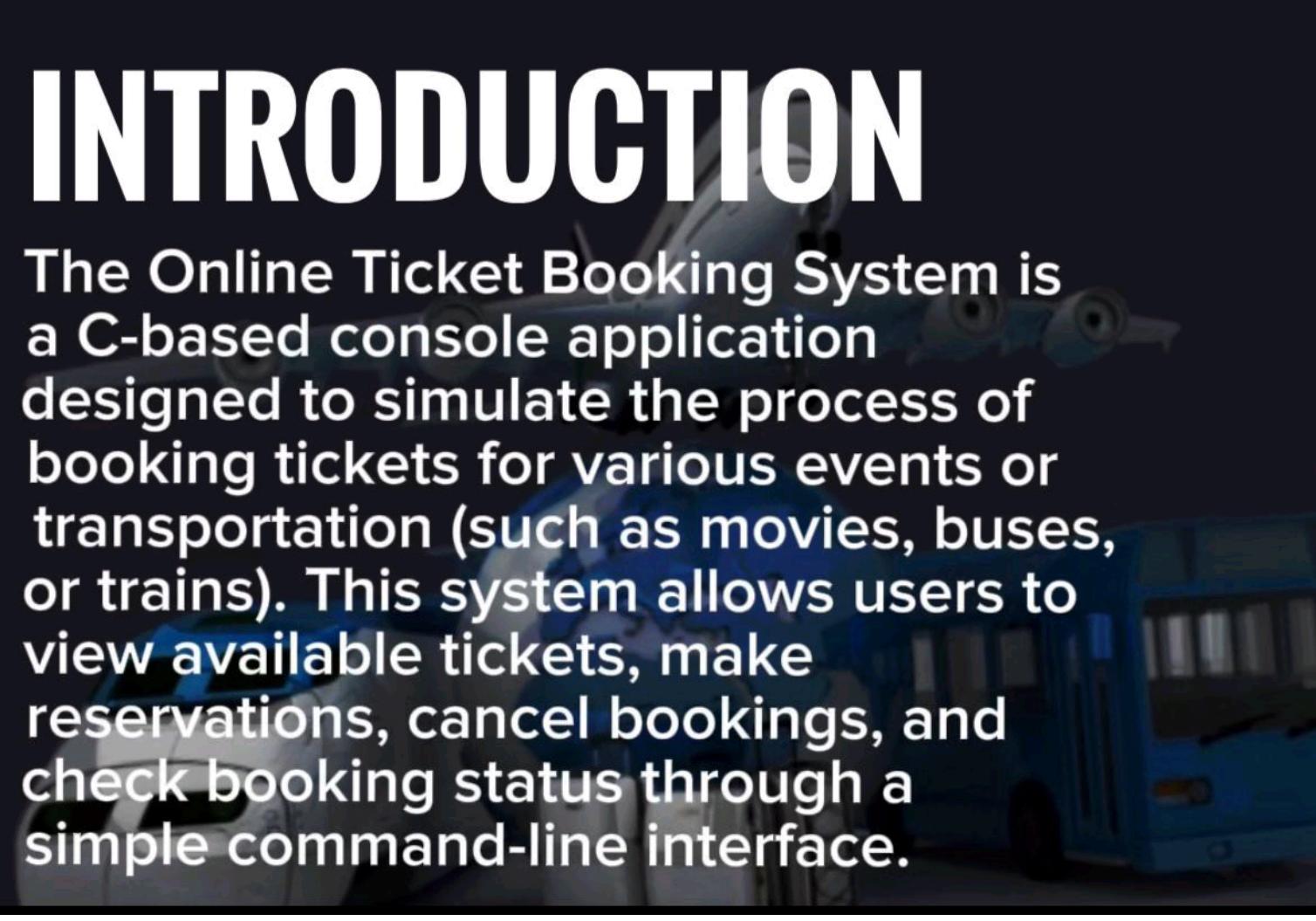
BUS BOOKING

FLIGHT BOOKING



TRAIN BOOKING

INTRODUCTION



The Online Ticket Booking System is a C-based console application designed to simulate the process of booking tickets for various events or transportation (such as movies, buses, or trains). This system allows users to view available tickets, make reservations, cancel bookings, and check booking status through a simple command-line interface.

OBJECTIVE

The primary objective of the Online Ticket Booking System is to develop a simple and efficient ticket reservation platform using the C programming language. The system aims to:

- Provide a user-friendly interface for booking and canceling tickets.
- Maintain accurate records of bookings through file handling.
- Simulate real-world ticket management operations in a console environment.
- Demonstrate the use of structures, Functions, and file operations in c.
- Enhance understanding of basic data management and system interaction in a procedural programming context.



WHY C

Simplicity and Control: C provides low-level access to memory and full control over system resources, making it ideal for building foundational systems like ticket booking applications.

Speed and Efficiency: C programs execute faster due to minimal abstraction, which is useful for systems that need quick response times.

Educational Value: It helps learners understand how memory, data, and logic flow at a fundamental level—essential for mastering programming basics.

File Handling: C has built-in support for file operations, which are used to store and manage booking data in this project.

WHY DSA

- **Efficient Data Handling:** Structures like arrays, linked lists, or queues can be used to manage multiple bookings efficiently.
- **Fast Search and Retrieval:** Algorithms help quickly find, add, or delete booking records, improving performance.
- **Scalability:** A good understanding of DSA enables the system to scale as more bookings are made and more data is processed.
- **Logical Thinking:** Using DSA enhances problem-solving skills and ensures that the application logic is optimized and well-structured.

ALGORITHM

1. Start
2. Display the Main Menu with the following options:
 - a. Book Ticket
 - b. View Bookings
 - c. Cancel Ticket
 - d. Exit
3. Accept user choice and perform corresponding action:

If choice = Book Ticket:

- Prompt user to enter passenger details (name, age, number of tickets, etc.)
- Check availability
If available:
 - Generate booking ID (optional)
 - Store booking details in a file
 - Confirm booking to use
- Else:
 - Display “Tickets not available” message

If choice = Cancel Ticket:

- Prompt user to enter booking ID or name
- Search for the booking in the file
- If found, remove the booking from the file
- Confirm cancellation
- If not found, display error message

If choice = Exit:

- Terminate the program

4. Repeat steps 2–3 until user chooses to exit
5. End

TAKEAWAY

Right Data Structures Matter:

Using a circular queue improves performance and resource utilization in real-time systems.

Efficient Memory Use:

Circular queues recycle space, avoiding memory overflow and wasted space common in linear queues.

Better System Design:

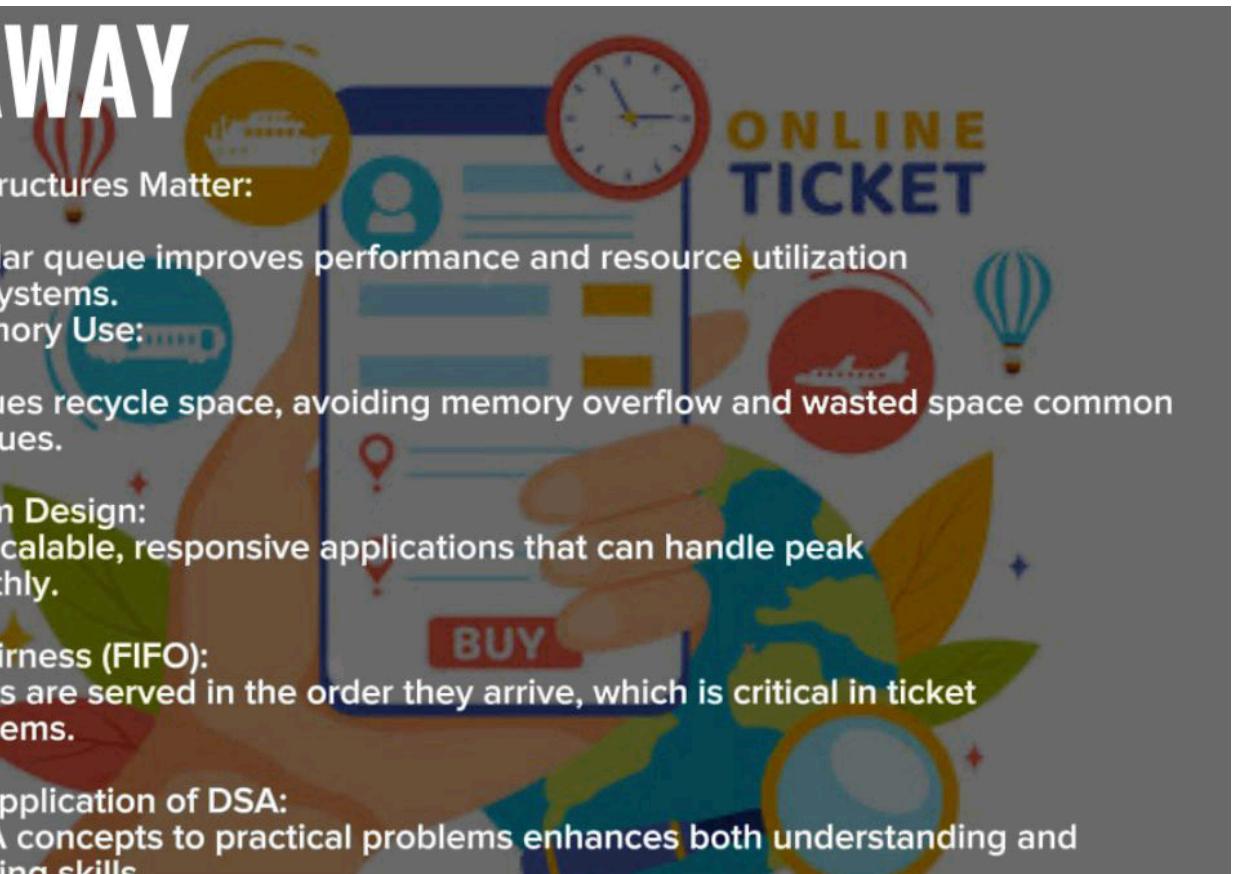
Helps build scalable, responsive applications that can handle peak traffic smoothly.

Maintains Fairness (FIFO):

Ensures users are served in the order they arrive, which is critical in ticket booking systems.

Real-World Application of DSA:

Applying DSA concepts to practical problems enhances both understanding and problem-solving skills.



ONLINE TICKET

--- Online Ticket Booking System ---

1. Add Ticket Request
2. Process Ticket Request
3. Show Queue
4. Exit

Enter choice: 1

Enter ticket request (name): 101

Request '101' added to the queue.

--- Online Ticket Booking System ---

1. Add Ticket Request
2. Process Ticket Request
3. Show Queue
4. Exit

Enter choice: 1

Enter ticket request (name): 102

Request '102' added to the queue.

--- Online Ticket Booking System ---

1. Add Ticket Request
2. Process Ticket Request
3. Show Queue
4. Exit

Enter choice: 2

Processing request: '101'

--- Online Ticket Booking System ---

1. Add Ticket Request
2. Process Ticket Request
3. Show Queue
4. Exit

Online Ticket Booking System

1. Add Ticket Request
2. Process Tickets (Round-Robin)
3. Display Current Queue
4. Exit

Enter your choice: 103

Invalid choice. Try again.

Online Ticket Booking System

1. Add Ticket Request
2. Process Tickets (Round-Robin)
3. Display Current Queue
4. Exit

Enter your choice: 3

Queue is empty.

Online Ticket Booking System

1. Add Ticket Request
2. Process Tickets (Round-Robin)
3. Display Current Queue
4. Exit

Enter your choice: 104

Invalid choice. Try again.

Online Ticket Booking System

1. Add Ticket Request
2. Process Tickets (Round-Robin)
3. Display Current Queue
4. Exit

Enter your choice: 4

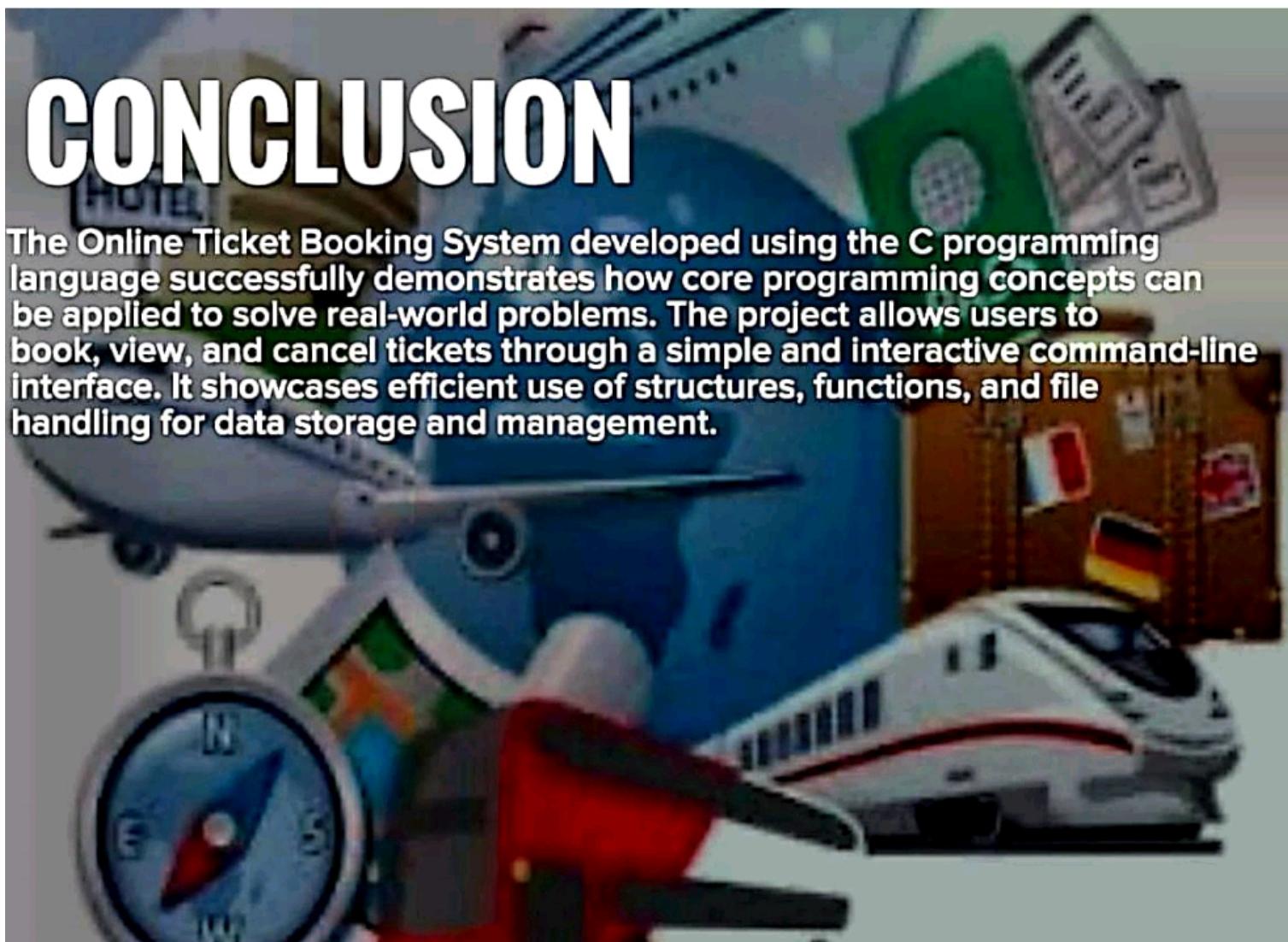
Exiting system.

...Program finished with exit code 0

Press ENTER to exit console.

CONCLUSION

The Online Ticket Booking System developed using the C programming language successfully demonstrates how core programming concepts can be applied to solve real-world problems. The project allows users to book, view, and cancel tickets through a simple and interactive command-line interface. It showcases efficient use of structures, functions, and file handling for data storage and management.



THANK YOU

