CHAPTER 1

INTRODUCTION

1.1 PROBLEM DEFINITION

This undertaking will give us the data about the cruise reservation. This framework is essentially worried about the reservation and dropping of cruise lines tickets to the travelers . To be more particular, our framework is restricted so that a Ship beginning from a specific source will have a solitary goal.

The fundamental capacities being performed by our framework are reservation and dropping.

Clients can locate the best possible and right data about the cruise and demonstrate the

1. It saves and drops seats for the traveler .
2. It contains data about the ships.
3. It contains data about the Seat Availability.
4. Cruise timetable.
5. Reservation Possibilities.
6. Ship Ticket booking.
7. Booked Ship Ticket Status.

1.2 OBJECTIVES:

The main objective of this application project is to simplify the transportation problems.

So, in this project people can book a ticket. They have to give their input details like name, age, phone no, son that their cruise ticket is booked and they will get reservation number and details will be send to their phone via SMS. In this way they can see their details by using the reservation number. And they can even cancel their ticket by using the reservation number. It also allows checking the fares of the tickets.

The application is to automate the existing system of issuing tickets at only select outlets to make available online, so each customer can book cruise ticket at his or her place. This requires a lot of physical and mental efforts and time consuming as well.

In this system a person is maintained for the allocation and proper functioning of the transportation. The authorized person maintains the transportation details in papers which is tedious task if any updating are changes are to be made.

Booking Cruise Ticket:

- What do you want to do?
- Reserve a ticket
- Cancel a ticket
- Display the ticket details
- See the cost of ticket
- Exit

This application can be used by any cruise ship to issue the tickets to the customers.

- **Existing System:**

Presently this company has ticket counters in some part of the city. Where people as to go to book the tickets. Also, there are many travel agents take the advance booking. In

turn these agents will check out with the main ticket counter officials for the ticket confirmation. This is very lengthy and tedious process for the agents to book the tickets.

- **Proposed System:**

The proposed system will available online. So anybody who are interested in the checking their tickets they can easily check. And also they can book ticket online.

The benefits of this program include:

- This can be used in different cruise lines.
- User will get to know that seats are either full or not at any particular date.
- Cancel reservation in a fix period of time.
- Reliable and accurate.
- User Friendly

1.3 METHODOLOGY

MODULES:

The system of careful analysis has been identified to be presented with the following modules and roles. The modules involved are:

->Administrator

->user

1.ADMINISTRATOR: The administrator is the super user of the application. Only Admins have access into the admin page. Admin may be the owner of the ticket reservation. The administrator has all the information about all the users and details of the tickets..

2.USER: A user does not have any super user privilege. User cannot have access into admin page. The admin page will be encrypted. User can access through admin page only if he/she knows the password and user id.

REGISTERATON:

A new user will have to register in the system by providing essential details in order to access the page. The admin must grant permission for the user. The user will be checked by the admin before reservation.

->A user cannot log in by using his/her user id and password to the system for reservation a ticket.

->The user can then pay their amount to reserve a ticket.

->The user can also search for the reservation ticket.

1.4 EXPECTED OUT COMES

1. It displays the welcome page
2. Next it displays the options

    a) Admin

    b) User

    c) Exit

3. If we select option 1, we can go to the Admin mode. After choosing this option it asks for other detail like

    ->Password

4. If it is correct it will ask for other details like

    a) Add ship detail

    b) Display ship detail

    c) Modify ship details

    d) Delete ship detail

    e) Check PNR info

f) Exit

5. If we choose option 2, we can go to the User mode. After choosing this option it asks for other detail like

a) Ship details

b) Seat availability

c) Book ticket

d) PNR enquiry

e) Cancellation of ticket

f) Fare enquiry

g) Exit

6. If we choose option 3 it will come out of the screen.

1.5 HARDWARE REQUIREMENTS

- Processor: Intel Premium IV or V/AMD Athol or Higher
- RAM: 512 MB
- Hard disk-100 GB
- Input device: Standard Keyboard and Mouse
- Output device: VGA and High-Resolution Monitor
- Software: turbo C

1.6 SOFTWARE REQUIREMENTS

- Operating System: Windows 7 or any updated version of windows
- Data structure used: Linked list
- Language: C
- Compiler: DEV C++
- Server: Internet information Services
- Front End: ASP .net 2.0

CHAPTER 2

DATA STRUCTURE

Data structure is used to store data in a specified format.

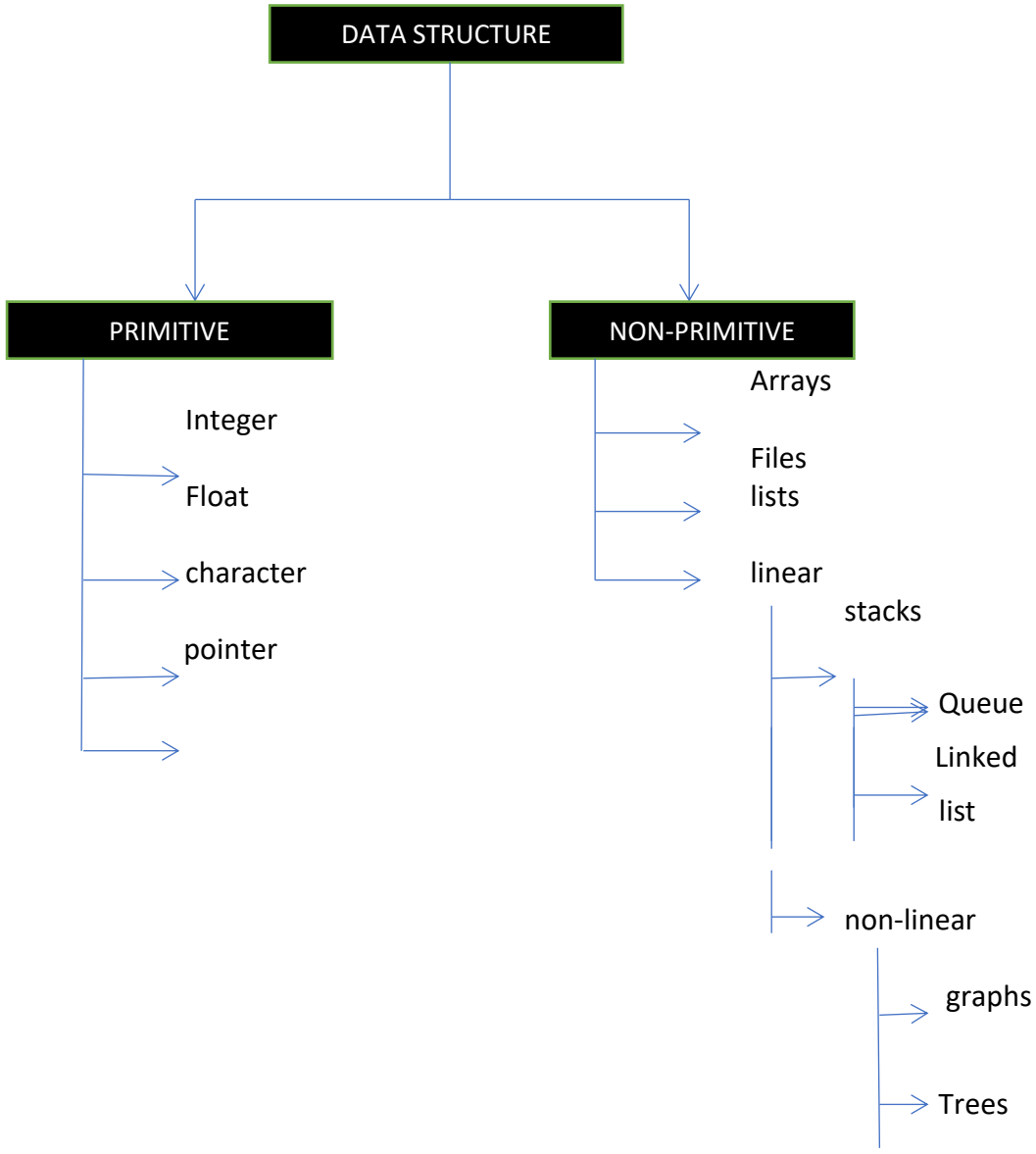


FIGURE 2.1

DATA STRUCTURE

Data structures are of two types: primitive data structures and non-primitive data structures.

Primitive data structures can be directly manipulated by machine instructions.

Examples: 1.int

2. Float

3. Char

4. Pointer

Non-primitive data structures cannot be directly manipulated using machine instructions.

Examples: 1.Arrays

2. Lists

3. Files

Lists are again classified into 1.Linear lists

2. Non-linear lists.

1. Linear list consists of: (a) Stack

(b) Queues

(c) Linked list.

2. Non-linear list consists of: (a) trees

(b) Graph

2.3

A linked list is a linear data structure, in which the elements are not sorted at contiguous memory locations, a linked list contains of nodes where each node contains a data field

and a reference (link) to the next node in the list. The first node is called head. If the linked list is empty, then the value of head is NULL.

How to add elements to linked list

You can add elements to beginning, middle or end of linked list.

Add to beginning

- Allocate memory for new node
- Store data
- Change next of new node to point to head
- Change head to point to recently created node

Add to end

- Allocate memory for new node
- Store data
- Traverse to last node
- Change next of last node to recently created node

Add to middle

- Allocate memory and store data for new node
- Traverse to node just before the required position of new node
- Change next pointers to include new node in between

How to delete from a linked list

You can delete either from beginning, end or from a particular position.

Delete from beginning

- Point head to the second node

Delete from end

- Traverse to second last element

- Change its next pointer to null

Delete from middle

- Traverse to element before the element to be deleted
- Change next pointers to exclude the node from the chain

MAIN ADVANTAGES OF LINKEDLIST OVER ARRAYS IS:

1. Size of array is fixed we must know its upper limit in advance. But in linked list size is not fixed.

2. Insertion and deletion is easy compared to array.

3. No memory wastage will be there in linked list.

Structure of single linked list:

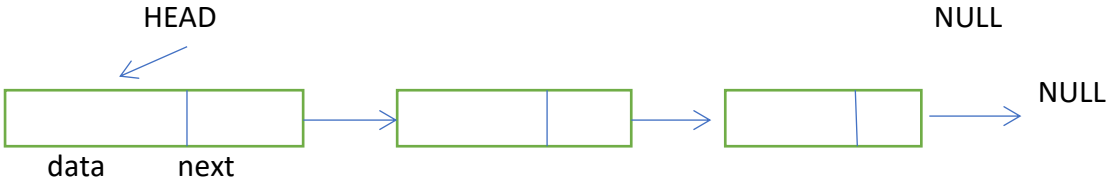


FIGURE 2.2

Self-referential code:

1. Single linked list

```
Structslist
{
int data;
Structslist *ptr;
}
```

2.Double linked list

```
structdlist
{
    int data;
   structdlist *prev;
    structdlist *next}
```

2.2 **STACK:**

It follows LIFO rule (last in first out).it is a data structure in which insertion and deletion takes place from same end.

1. Push
2. Pop
3. Display

1. Push: Inserting an element into the stack is known as push when stack is full we call it as stack overflow.

2. Pop: Deleting the element from top known as pop. If stack is empty it is said to be stack overflow.

3. Display: Display the stack elements from top to bottom.

Applications of stack are listed below:

1. Recursion
    a. Fibonacci series
    b. Towers of Hanoi
    c. Factorial
2. Conversion of expressions.
3. Evaluation of Postfix expressions.

2.3 **QUEUE**:

It follows FIFO rule (first in first out).it is a linear data structure in insertion happens and deletion takes place at different ends.

1.Insertion:

Including an element into the queue is said to be insertion which is done at rare end.

2.Deletion:

Removing the element from the queue is to be deletion. We have to use front end for deletion.

3.Display:

Printing the queue elements is set to be display.

TYPES OF QUEUES:

1. Linear queue
2. Circular queue
3. Double ended queue
4. Priority queue

2.4 TREES:

Trees is a non-linear data structure which consists of hierarchal collections of nodes starting from root node to leaf node. Tree parts are divided as left sub-tree right sub-tree and child nodes.

Types of trees:

1. Binary tree
2. Strictly binary tree
3. Full binary tree
4. Complete binary tree

Operations of tree:

1. Inorder
2. Preorder
3. Postorder
4. Level order

Representation of tree:

1. Arrays
2. Linked list

2.5 GRAPHS:

It is a non-linear data structure which has vertices and edges.

Representation of graphs:

1. Adjacent matrix
2. Adjacent lists

GRAPH TERMINOLOGY

- VERTEX: It is a data element which is nothing but a node. (E.g.: A, B, C)
- EDGE: It is the connection between two nodes. (E.g.: AB, BC)
- DIRECTED GRAPH: A graph which contains only directed edges.
- UNDIRECTED GRAPH: A graph which contains only undirected edges.
- MIXED GRAPH: A graph which contains both directed and undirected edges.

DYNAMIC MEMORY ALLOCATION:

Allocating memory during execution time or run time. In dynamic memory allocation memory can be increased while executing program used in linked list.

DYNAMIC MEMORY TECHNIQUES ARE:

- Malloc ()
- Calloc ()
- Realloc ()
- Free ()

MALLOC ()

Malloc () is also known as memory allocation. It is used to allocate single block of memory.

SYNTAX:

Ptr= (caste-type*) malloc (size);

EXAMPLE:

Ptr=(int*)malloc(size of(int));

CALLOC ()

Calloc () is also known as contiguous allocation. It is used to allocate multiple blocks of memory.

SYNTAX:

Ptr=(caste-type*)calloc(n,size);

EXAMPLE:

Ptr= (int*) calloc (5, sizeof (int));

REALLOC ()

Realloc () is also known as reallocation. It reallocates the memory occupied by malloc () or calloc () functions.

SYNTAX:

Ptr=(caste-type*) realloc (ptr,newsize);

EXAMPLE:

ptr=(int*) malloc (15);

ptr=(int*) realloc(ptr,30);

FREE

It is used to deallocate the memory. It frees the dynamic allocated memory.

STRUCTURE

In c program, strut is a collection of different /unsimilar data types.

SYNTAX:

Strut tag name

{

Type mem 1;

Type mem 2;

};

Where

Tag name = structure name

Type = data type (int, char)

Mem 1, mem 2 = members of the structure

EXAMPLE:

Strut student

{

Char name [30];

Char roll number [30];

Int marks;

};

CHAPTER 3

3.1. ALGOARITHM

Step 1: shows what we want to do

1. Do you want to book a ticket?
2. Do you want to cancel a ticket?
3. Do you want to display the passenger details?
4. Do you want to display the cost?

Step 2: If selects book a ticket

1. It asks the name of the passenger
2. It asks the age of the passenger
3. It also asks the phone number of passengers
4. Know it will give you a Reg number
5. Know your ticket is booked

Step 3: If you want to cancel a ticket

1. It asks for your Reg number
2. After entering the number, you ticket will cancel

Step 4: If you want to display the details by selecting it will show all the details

Step 5: If you select the show cost it will show the cost of all

Step 6: Exit

3.2 Administrator mode

Administrator mode is password protected, so that data can be secured. The password is "**root123**". If you enter the wrong password, it displays the message – "Incorrect Password".

The administrator is the super user of the application. Only Admins have access into the admin page. Admin may be the owner of the ticket reservation. The administrator has all the information about all the users and details of the tickets.In Admin mode, you can perform given function:

1. Add data to new ship
2. Display all ships details
3. Modify Ship Details
4. Delete ship details
5. Check all PNR information

3.2.1 Add data to new Ship

Function name	ship detail ()
Work	Store data of ship in database
Input	Ship detail like Ship no, Name, From, Destination, Fare

Process	Stores data in database
Output	N/A

3.2.2 Display all Ships Details

Function name	ship display ()
Work	Display data of all ships from database.
Input	N/A
Process	Reads data from database
Output	Display data of all ships

3.2.3 Modify Ship Details

Function name	ship modify ()
Work	Update data of ship in database
Input	Ship no • If ship no matches with database takes new data for ship.

	Else it will print – 'Ship not found'
Process	Update database
Output	N/A

3.2.4 Delete Ship Details

Function name	ship delete ()
Work	Delete data of ship from database
Input	Ship no • If ship no matches with database takes new data for ship. • Else it will print – 'Ship not found'
Process	Update database
Output	Ship's Data deleted

3.2.5 Check all PNR information

Function name	display reservation ()
Work	Display all reservation details from database
Input	N/A
Process	Reads data from database
Output	Display data of all reservations

3.3 User mode

User mode is not password protected. Anyone can come for reservation. Users can get the ship details. The details to be provided for train are ship no., ship name, boarding point, destination point, and no. of seats and fare per ticket.

A user does not have any super user privilege. User cannot have access into admin page. The admin page will be encrypted. User can access through admin page only if he/she knows the password and user id.

In User mode, you can perform given function:

1. Display all Ships details
2. Check Seat
3. Availability Book Ticket (Reservation)

4. PNR Enquiry
5. Cancellation of Ticket
6. Fare Enquiry

3.3.1 Display Ships Details

Function name	ship display ()
Work	Display data of all ships from database.
Input	N/A
Process	Reads data from database
Output	Display data of all ships

3.3.2 Seat Availability

Function name	seat_availabilty ()
Work	Display no of seat available.
Input	Ship no and Date to travel
Process	Count no of seats available.
Output	Display no of seats available.

3.3.3 Book Ticket (Reservation)

Function name	Reservation ()
Work	Book 1 ticket at a time
Input	Ship no, Passenger name, Passenger age & date of travel
Process	Stores reservation data in database
Output	Stores reservation data in database

3.3.4 PNR Enquiry

Function name	pnr_enquiry ()
Work	Display reservation details from database
Input	PNR • If PNR matches with database then display data. • Else it will print – 'PNR not found'
Process	Reads data from data

Output	Display data of reservations.

3.3.5 Cancellation of Ticket

Function name	cancel reservation ()
Work	Cancel the reservation.
Input	PNR • If PNR matches then delete the data • Else it will print – 'PNR not found'
Process	Delete data of reservation.
Output	Update database and waiting list.

CHAPTER 4

IMPLEMENTATION

1. This program starts with switch case that includes

->Admin mode

->User mode

->Exit

2. Admin mode:

After choosing admin mode the user is asked for password that is only known to admin. User has to know the password to access the admin account. After login into the account few options are listed like

->Add ship details

->Display ship details

->Modify ship details

->Delete ship details

-> PNR enquiry

3.Add ship details:

Using this function, we can add details of ship by entering few details like ship no, ship name, ship source, ship destination. After entering the above details, the ships fare is displayed.

4. Display ship details:

Using this function, we can display details of ship like ship no, ship name, ship source, ship destination, adult fare, child fare, total number of seats.

5. Modify the ship details:

Using this function, we can modify details of ship by entering few details like ship no, ship name, ship source, ship destination. After entering the above details, the ships fare is displayed.

6. Delete the ship details:

Using this function, we can delete the details of ship by entering the ship number.

7. PNR enquiry:

Using this function, we can display details of ship like ship no, ship name, ship source, ship destination, adult fare, Name, age, PNR number, date.

8.Exit:

Finally, after the admin is done with his or her work, he can choose the exit option.

9. User mode:

After choosing this mode few options are displayed like

1) Ship details

2) Seat availability

3) Book ticket

4) PNR enquiry

5) Cancellation of ticket

6) Fare enquiry

7) Exit

10. Ship details:

In this function we can find ship details. To know the details, we need to enter some details like ship name, date of travel (date and month).

11. Seat availability:

Using this function, we can find number of seats available in the ship. To know the seat availability, we need to enter the ship number.

12. Book ticket:

This function is used to book ship ticket we need to enter few details in order to book a ticket. The details are ship number, name, age and date of travel. After entering the above details a PNR number is generated.

13. PNR enquiry:

This function is used to check PNR status in order to check ship booking details we need to enter the PNR number. If the PNR number is found it displays the details of ship else it displays PNR not found.

14. Cancellation of ticket:

This function is used to cancel the ticket. To cancel the ticket, we need to enter the PNR number if PNR number is found then the ticket is cancelled else it prints PNR not found

15. Fare enquiry:

This function is used to display the fare of ticket. It displays the fare according to ages.

16. Exit:

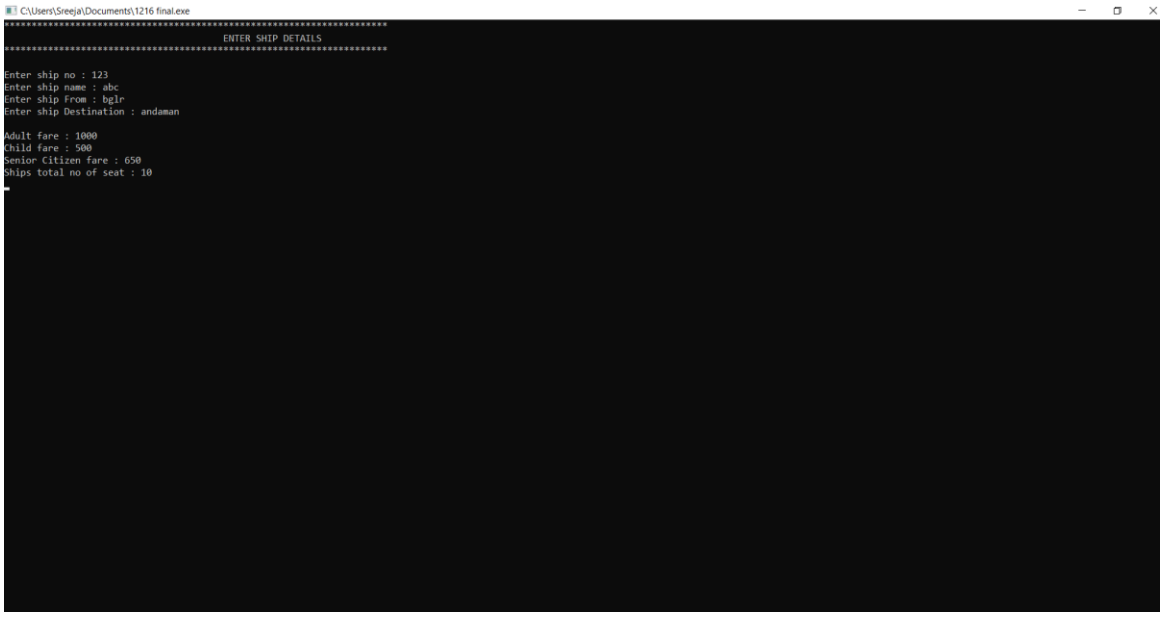
After the user is done with his/her ticket booking we can choose the exit option to come out of the page.

CHAPTER 5

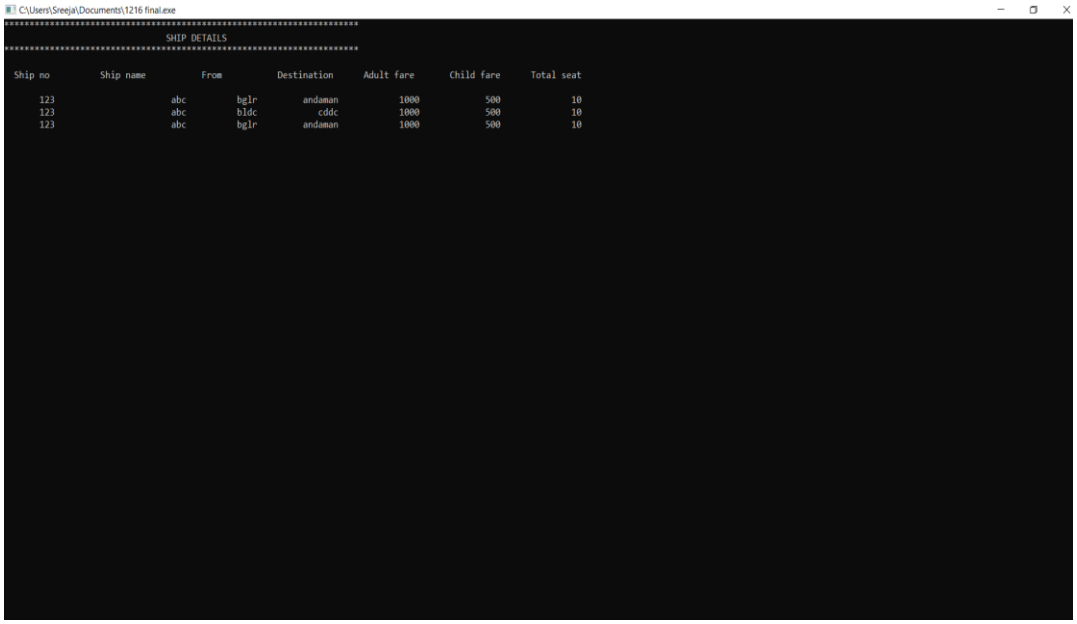
RESULTS

1. ADMIN MODE:

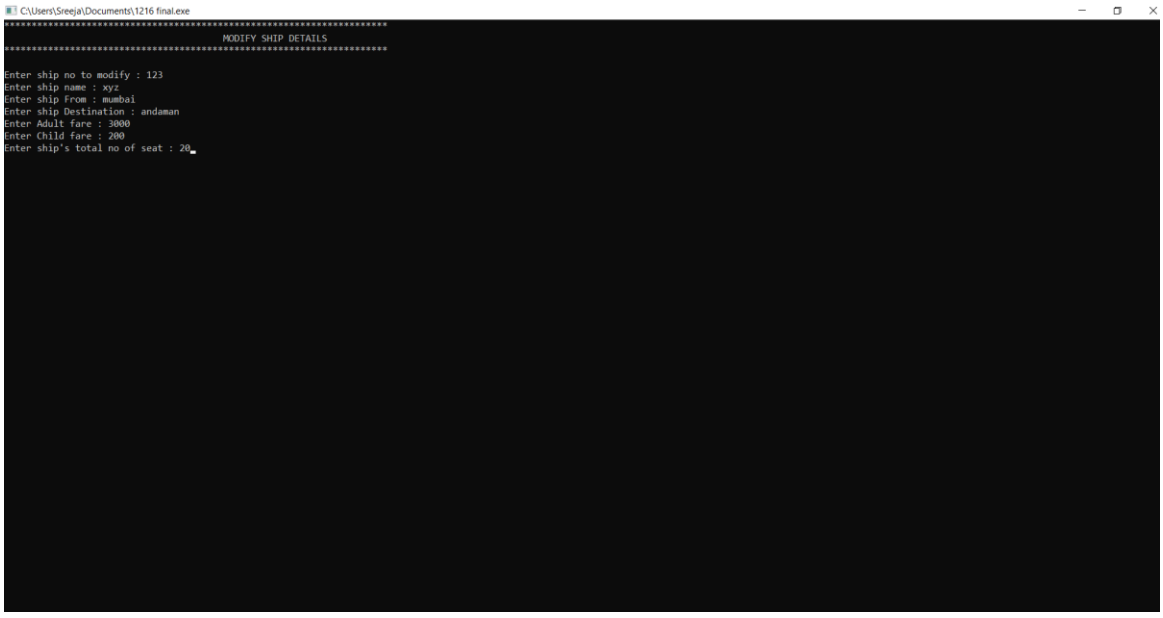
1.1 Add ship details:



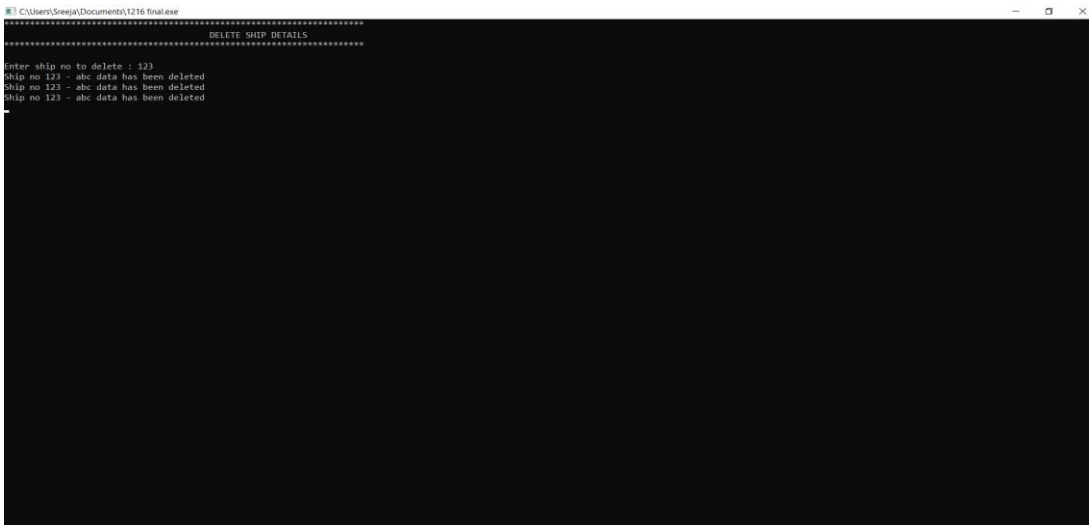
1.2 Display ship details:



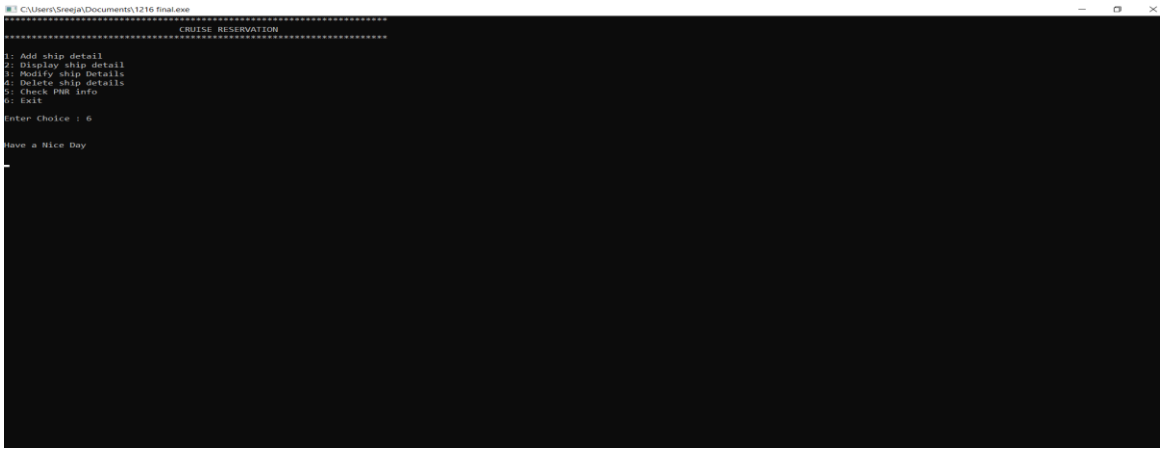
1.3 Modify ship details:



1.4 Delete ship details:

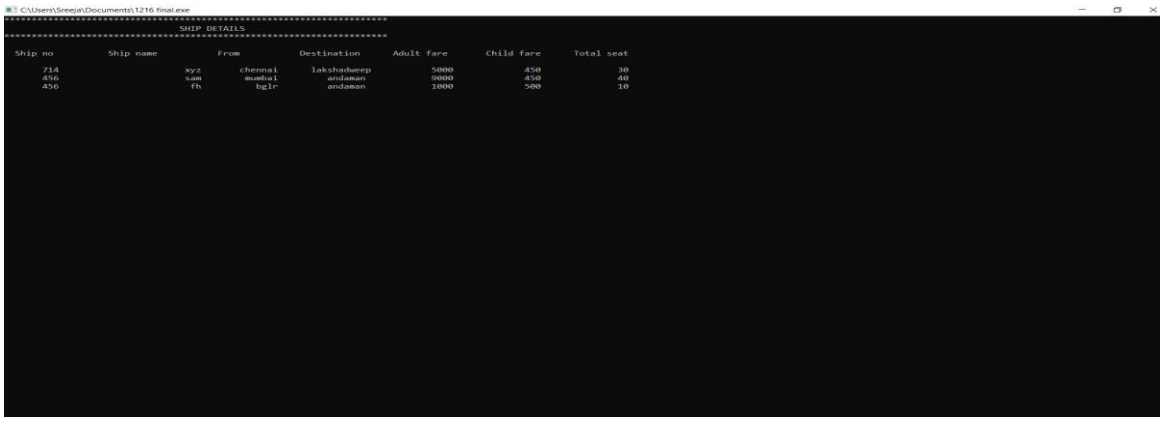


1.5 Check PNR info:

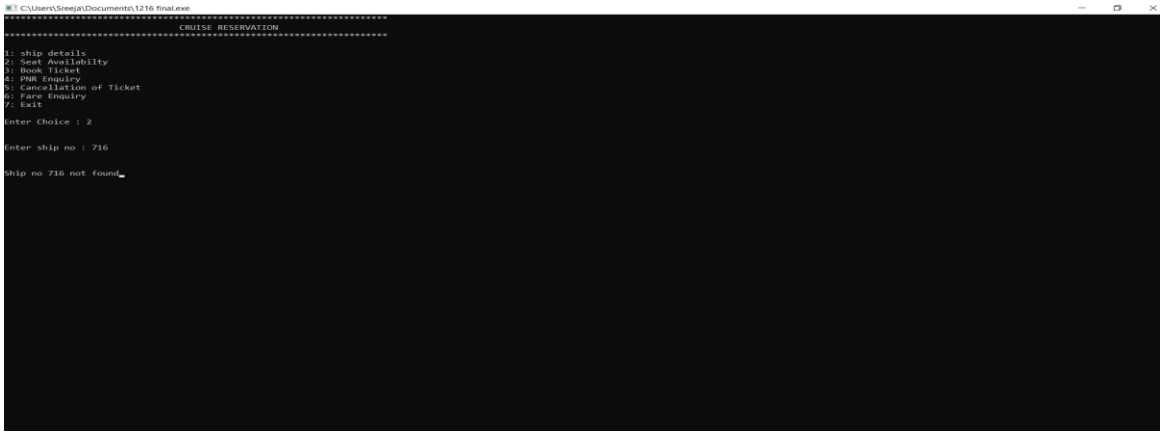


1.6 Exit:

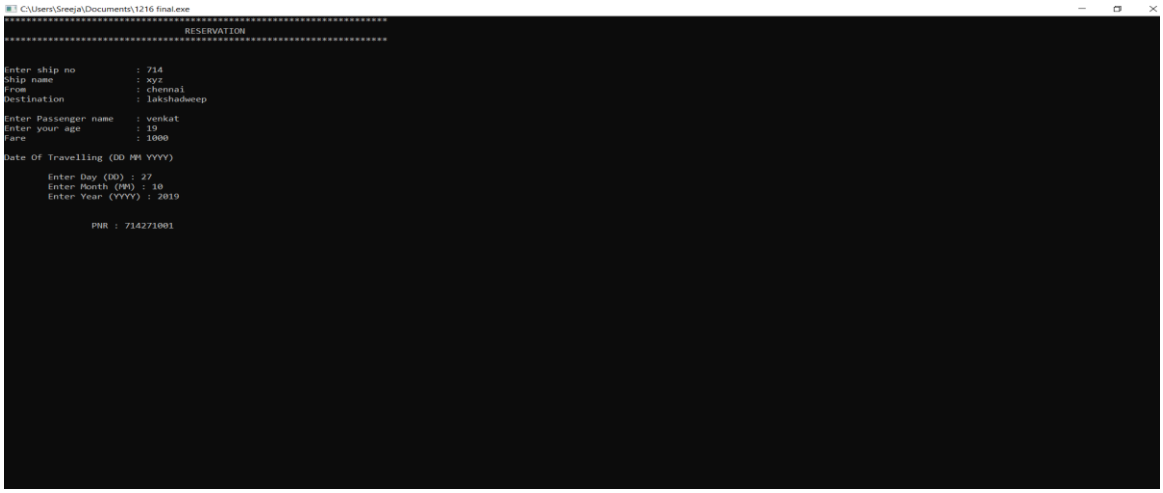
2. USER MODE:



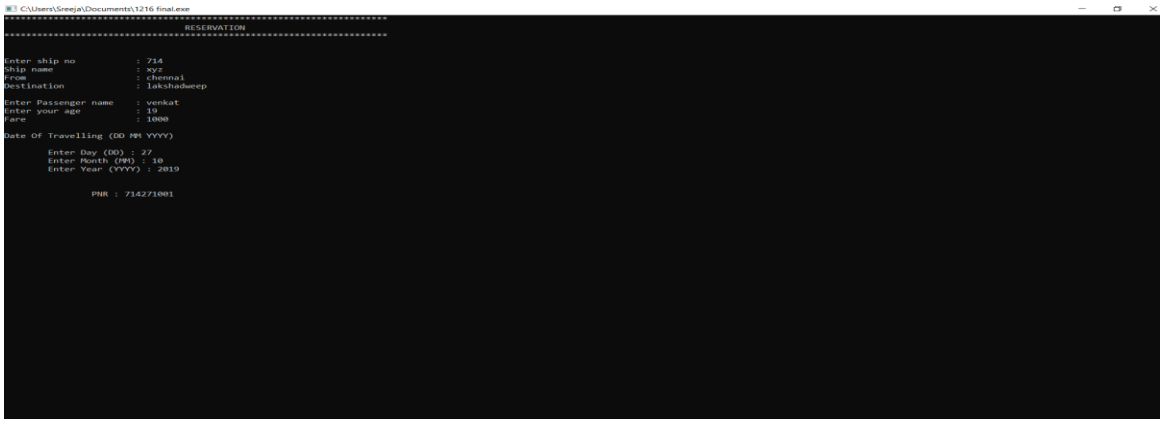
2.1 Ship details:



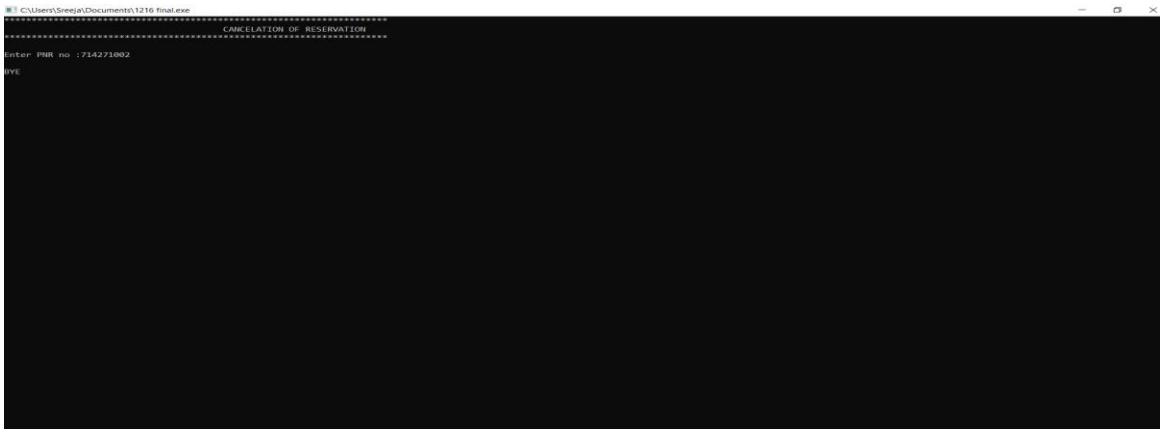
2.2 Seat availability:



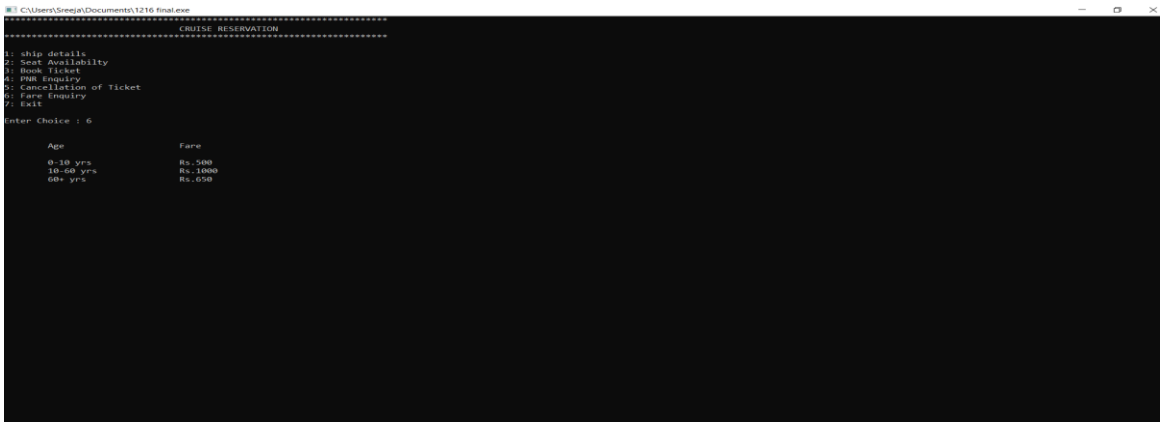
2.3 Book ticket:



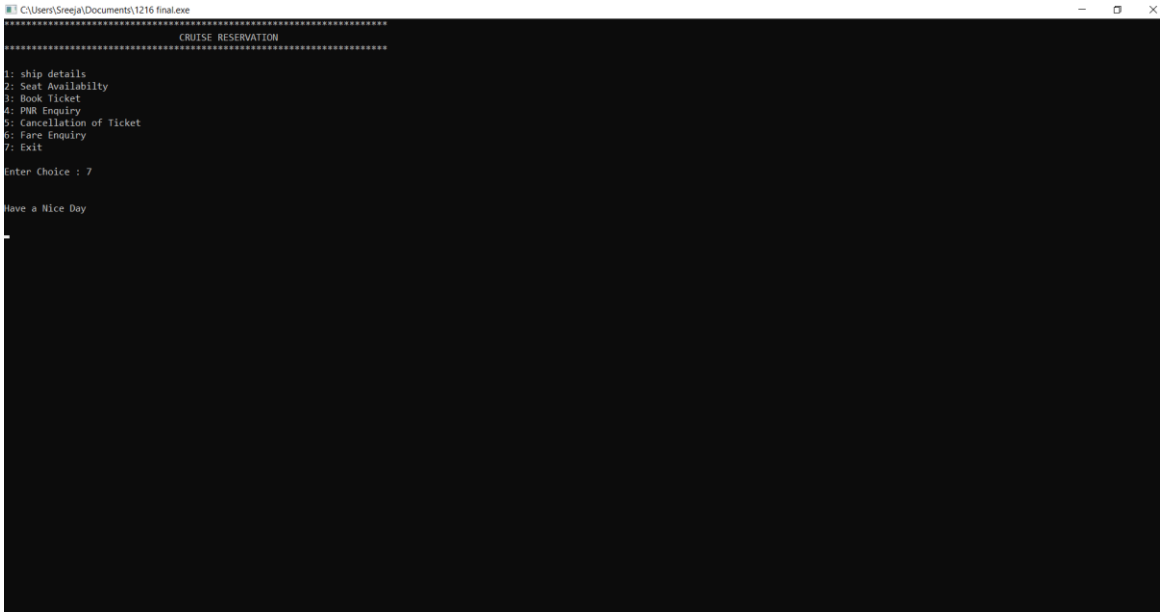
2.4 PNR enquiry:



2.5 Cancellation of ticket:



2.6 Fare enquiry:



2.7 Exit:

3. EXIT:

CHAPTER 6

CONCLUSION

Cruise Reservation is a straightforward reassure application worked without the utilization of illustrations. This is intended to help the client and in addition the experts with the everyday advancement of the cruise lines of interest and that of the reservations and ships information. This venture in C, this program highlights two modes, secret word insurance and some fundamental document dealing with tasks to include and show prepare request and reservation records. This venture is finished and absolutely blunders free, and I have exhibited the source code in an extremely justifiable way.

REFERENCE

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