

# Online Theatre Ticket Booking Application

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Need to prepare a console application for online theatre ticket booking application.

The application should show the following menu option to select operation to be performed.

1. User Registration
2. Login
3. Exit

## 1. User Registration

1. If the user selects 1 from main menu **User Registration** will be selected.
2. Create two user account by default (Check the default user details table).
3. Get below details from user to create a new user account and add to the list.
  - User ID - Auto Incremented (UID1001)
  - Name
  - Age
  - Phone Number
  - Wallet Balance
4. Once the new account is created need to show the UserID to the current registered user.

## 2. Login and Purchase

1. If the user selects 2 from main menu Login and Purchase option will be selected.
2. Get the UserID and validate the UserID.
3. If the UserID doesn't match, show "Invalid UserID". Else the following sub menu option 'a' to 'e'.
  - a. Ticket Booking
  - b. Ticket Cancellation
  - c. Booking History
  - d. Wallet Recharge
  - e. Exit

### 1. Ticket Booking:

Create a theatre list inbuilt with the below details.

### Default Theatre Details

Theatre Id	Theatre Name	TheatreLocation
TID301	Inox	Anna Nagar
TID302	Ega Theatre	Chetpet
TID303	Kamala	Vadapalani

### Default Movie Details

Movie Id	Movie Name	Language
MID501	Bagubali 2	Telugu
MID502	Ponniyin Selvan	Tamil
MID503	Cobra	Tamil
MID504	Vikram	Hindi (Dubbed)
MID505	Vikram	Tamil
MID506	Beast	English

### Default TheatreMovie

Movie Id	TheatreID	Ticket Price	Seat Availability
MID501	TID301	200	5
MID502	TID301	300	2
MID506	TID301	50	1
MID501	TID302	400	11
MID502	TID302	300	20
MID504	TID302	500	2
MID505	TID303	100	11
MID502	TID303	200	20
MID504	TID303	350	2

1. Once the User logged in show the list of Theatre's details.
2. Ask the user to select a Theatre using Theatre ID.
3. Once Theatre selected then Show the user, the detailed list of movies screened on that theatre.
4. Ask the user to select a movie from list of screened movies using MovieID.
5. Ask for the count of seats he wish to Book.
6. If the required count is not available in the Theatre seat availability, then show like "Required Seat count not available. Current availability is {Seat count}".
7. If the seat count is available, then calculate total amount with the below formula.

Total Amount = (required count \* price per ticket) +18% tax in total ticket price

8. Check the current logged in user's wallet balance to ensure he is having enough balance to book ticket by comparing with total price.
9. If the wallet balance is insufficient for this booking, then display "Insufficient Wallet Balance. Please recharge your wallet".
10. If the wallet has sufficient balance, then
  - a. Deduct the total amount from the wallet balance of the current logged in user.
  - b. Deduct the count from the seat availability of the movie.

and confirm the order, Set Booking status as Booked and create booking object, file it and show "Booking successful".

## 2. Ticket Cancellation:

1. Show the booking history of current logged in user
2. Ask the booking ID he want to cancel.
3. Check the status of booking if it is "Booked" then
4. Get the count of seat booking from history and increase the seat availability value in the movie list.
5. Reduce 20 Rs amount from total amount and add the remaining amount to user's wallet balance
6. Change the booking status to cancelled.

## 3. Booking History:

1. Show all the information about the orders that current logged in customer made.

## 4. Recharge Wallet:

1. Ask the Customer to enter the amount to be recharged and add the amount in the current logged in user's wallet balance

## 5. Exit:

1. If Customer select "Exit" option, then need to exit sub menu and have to show the main menu.

## 3. Exit:

1. If User selects option 3 in main menu "Exit" option will be selected and need to close the application.

## Classes:

### 1. Interface IWallet

**Properties:** WalletBalance

**Method:** RechargeWallet

### 2. PersonalDetails

**Properties:**

- Name
- Age
- PhoneNumber

### 3. **UserDetails:** inherit PersonalDetails, IWallet

**Properties:**

- UserID (Auto Increment - UID1001)

**Method:**

WalletRecharge

### 4. **Booking Details**

**Properties:**

- BookingID (Auto Increment – BID7001)
- UserID
- MovieID
- TheatreID
- SeatCount
- TotalAmount
- BookingStatus (Enum type – Booked, Cancelled)

### 5. **Theatre Details:**

**Properties:**

- TheatreID(Auto Increment – TID301)
- TheatreName
- TheatreLocation

### 6. **Movie Details:**

**Properties:**

- MovieID (MID1001)
- MovieName
- Language

## 7. TheatreMovie Details:

### Properties:

- Movie ID
- TheatreID
- NoOfSeatsAvailable
- Ticket Price

### Booking Details Default Data:

Booking ID	UserID	MovieID	TheatreID	SeatCount	TotalAmount	BookingStatus
BID7001	UID1001	MID501	TID301	1	200	Booked
BID7002	UID1001	MID504	TID302	1	400	Booked
BID7003	UID1002	MID505	TID302	1	300	Booked

### Default User Details:

UserID	Name	Age	Phone Number	Wallet Balance
UID1001	Ravichandran	30	8599488003	1000
UID1002	Baskaran	30	9857747327	2000