



Department of Software Engineering

Semester : 2

Course : Object Oriented Programming

Final Semester Project

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Project Tittle : Movie Ticket Booking System

➤ CODE :

```
#include <iostream>

#include <string>

using namespace std;

class Movie {
protected:
    string name;
    string showTime;
    float ticketPrice;
public:
    Movie(){
name = " ";
        showTime = " ";
        ticketPrice = 0.0;
    }
    Movie(string n, string t, float p) {
        name = n;
        showTime = t;
        ticketPrice = p;
    }
    virtual void displayDetails() {
        cout << "Movie: " << name << endl;
        cout << "Show Time: " << showTime << endl;
        cout << "Ticket Price: Rs." << ticketPrice << endl;
    }
    float getTicketPrice() {
        return ticketPrice;
    }
};
```

```
    }  
    string getMovieName() {  
        return name;  
    }  
    string getShowTime() {  
        return showTime;  
    }  
};  
class Theater : public Movie {  
private:  
    int totalSeats;  
    int bookedSeats;  
public:  
    Theater() : Movie() {  
        totalSeats = 0;  
        bookedSeats = 0;  
    }  
    Theater(string n, string t, float p, int seats) : Movie(n, t, p) {  
        totalSeats = seats;  
        bookedSeats = 0;  
    }  
    bool bookTickets(int qty) {  
        if (qty <= totalSeats - bookedSeats) {  
            bookedSeats += qty;  
            return true;  
        }  
        return false;  
    }  
    void displayDetails() override {
```

```

        Movie::displayDetails();

        cout << "Available Seats: " << (totalSeats - bookedSeats) << endl;
    }
};

class Booking {
private:
    string customerName;

    Theater* theater;

    int tickets;
public:
    Booking() {
        customerName = " ";

        theater = nullptr;

        tickets = 0;
    }

    Booking(string name, Theater* t, int qty) {
        customerName = name;

        theater = t;

        tickets = qty;
    }

    void confirmBooking() {
        cout << "\n--- Booking Summary ---\n";

        if (theater->bookTickets(tickets)) {
            cout << "Booking successful!\n";

            cout << "Customer Name: " << customerName << endl;

            cout << "Movie: " << theater->getMovieName() << endl;

            cout << "Show Time: " << theater->getShowTime() << endl;

            cout << "Tickets Booked: " << tickets << endl;

            cout << "Total Price: Rs." << tickets * theater->getTicketPrice() << endl;
        }
    }
};

```

```

    }
    else {
        cout << "Booking failed! Not enough seats available.\n";
    }
}
};

int main() {
    Theater movie1("Alpha Bravo Charlie", "5:00 PM", 500.0, 50);
    Theater movie2("Sherdil", "8:00 PM", 600.0, 30);
    Theater movie3("Parwaaz hy Junoon", "6:30 PM", 700.0, 40);
    int choice;
    do {
        string customer;
        int movieChoice, qty;
        cout << "\n=== Welcome to Movie Ticket Booking System ===\n\n";
        cout << "Movie 1:\n";
        movie1.displayDetails();
        cout << "\nMovie 2:\n";
        movie2.displayDetails();
        cout << "\nMovie 3:\n";
        movie3.displayDetails();
        cout << "\nEnter your first name (no spaces): ";
        cin >> customer;
        cout << "Enter the movie number (1-3): ";
        cin >> movieChoice;
        cout << "Enter number of tickets: ";
        cin >> qty;
        Booking booking;
        if (movieChoice == 1) {

```

```
        booking = Booking(customer, &movie1, qty);
    }
    else if (movieChoice == 2) {
        booking = Booking(customer, &movie2, qty);
    }
    else if (movieChoice == 3) {
        booking = Booking(customer, &movie3, qty);
    }
    else {
        cout << "Invalid movie selection.\n";
        continue;
    }
    booking.confirmBooking();
    cout << "\nDo you want to book another ticket? (1 = Yes, 0 = Exit): ";
    cin >> choice;
} while (choice == 1);
cout << "\nThank you for using the Movie Tickets "<<endl;
return 0;
}
```

➤ OUTPUT :

```
=== Welcome to Movie Ticket Booking System ===

Movie 1:
Movie: Alpha Bravo Charlie
Show Time: 5:00 PM
Ticket Price: Rs.500
Available Seats: 50

Movie 2:
Movie: Sherdil
Show Time: 8:00 PM
Ticket Price: Rs.600
Available Seats: 30

Movie 3:
Movie: Parwaaz hy Junoon
Show Time: 6:30 PM
Ticket Price: Rs.700
Available Seats: 40

Enter your first name (no spaces): Seerat
Enter the movie number (1-3): 3
Enter number of tickets: 9

--- Booking Summary ---
Booking successful!
Customer Name: Seerat
Movie: Parwaaz hy Junoon
Show Time: 6:30 PM
Tickets Booked: 9
Total Price: Rs.6300

Do you want to book another ticket? (1 = Yes, 0 = Exit): 0

Thank you for using the Movie Tickets
```

➤ **Class Diagram:**

