**Movie tickets Booking System**

**Abstract:-**

 The Movie tickets booking System is an online platform designed to simplify and automate the process of booking movie tickets for users. This system enables customers to browse movie listings, select their preferred showtimes, choose seats, and complete the booking process—all through an easy-to-use interface. Admin functionalities are provided for managing movie schedules, theaters, ticket prices, and available shows.. It allows candidates to book movie tickets.

**Introduction:-**

The Movie Ticket Booking System is a software application that allows users to book tickets for a movie theater. It allows the user to:

* View available movies.
* Choose the movie, showtime, and number of tickets.
* Reserve tickets and provide payment options.
* View booking history and other relevant details.

The project is implemented in Java, utilizing object-oriented principles, and can be extended to include a graphical user interface (GUI) or database integration.

**Objective of Movie Tickets Booking System:-**

The objectives of a Movie Tickets Booking System project are focused on creating an efficient platform for users to book tickets, manage movie schedules, and streamline the overall process for both customers and administrators.

key objectives are:

1. **User-Friendly Interface**:   
   To design an intuitive and easy-to-use interface that allows users to search for movies, check showtimes, and book tickets quickly and efficiently.
2. **Movie Showtimes and Information**:   
   To provide real-time information about available movies, showtimes, and theater locations, allowing users to make informed decisions.
3. **Seat Selection**:   
   To enable users to view available seating and select  seats for a given show, ensuring an optimal booking experience.
4. **Booking and Payment Integration**:   
   To provide a seamless booking process, including secure payment for users to complete their transactions.
5. **Real-Time Availability**:   
   To ensure that the system reflects real-time availability of seats.

**Hardware Requirements:-**

      1.Processor:

* Minimum: Intel Core i5 or equivalent
* Recommended: Intel Core i5/i7 or equivalent for faster performance

2.RAM:

* Minimum: 4 GB
* Recommended: 8 GB or higher for multitasking during development

 3. Storage:

* Minimum: 500 MB of free disk space (for Java installation, IDE, and project files)
* Recommended: SSD with at least 2 GB free space for faster read/write operations

 4. Display:

* Minimum resolution: 1024x768
* Recommended resolution: 1366x768 or higher

5. Keyboard and Mouse:

* Required for navigation and input in CLI or GUI.

**Software Requirements:-**

1.Operating System:

* Windows 11

2.Java Development Kit (JDK):

* Minimum: JDK 8

* Recommended: JDK 17 or later for enhanced features and performance

 3. Java Runtime Environment (JRE):

* Ensure the JRE is installed to run Java applications.

4.Compiler:

* Java compiler (included in the JDK).

**Java code :-**

 import java.time.LocalDateTime;

import java.time.format.DateTimeFormatter;

import java.util.\*;

public class Movie{

    public static void main(String[] args) {

        Scanner sc=new Scanner(System.in);

        System.out.println("Welcome to Movie Ticket Booking");

        System.out.println("1. Register/Login");

        System.out.println("2. Browse Movies");

        System.out.println("3. Exit");

        System.out.println("Choose any one of them");

        int t=sc.nextInt();

        User  user=new User();

        switch(t){

            case 1:

                boolean a=user.login();

                if(a){

                    System.out.println("\nLogin Successful!\n");

                }

                else{

                    System.out.println("Login Unsucccessfull! Invalid Code Entered Please Verify your Code");

                    return;

                }

                break;

            case 2:

                user.movies();

                return;

            case 3:

                return;

            default:

                System.out.println("Invalid Choose");

                break;

        }

        String[] location={"Ongole","Hyderabad","Mumbai","Bangalore"};

        String[] theatres={"Prasads IMAX","Ratnamahal","Gorantla","Krishna"};

        System.out.println("The available Locations are: ");

        for(int i=0;i<location.length;i++){

            System.out.println((i+1)+". "+location[i]);

        }

        System.out.println("Select the location: ");

        int loc=sc.nextInt();

        int th=0;

        boolean ch=false;

        while(ch==false){

            if(loc>0 && loc<5){

                System.out.println("\nThe Movie theatres available at "+location[loc-1]+" are: ");

                for(int i=0;i<theatres.length;i++){

                    System.out.println((i+1)+". "+theatres[i]);

                }

                System.out.println("Select the theatre you want to book tickets in: ");

                th=sc.nextInt();

                ch=true;

            }

            else{

                System.out.println("Invalid Choose Try Agin:");

                loc=sc.nextInt();

            }

    }

        System.out.println("\nAvailable Movies:");

        String[] mov=user.movies();

        System.out.println("\nSelect the Movie you want to Book:");

        int m=sc.nextInt();

        boolean b=false;

        String times[]={"9:00 am","12:00 pm","3:00 pm","9:00 pm"};

        int time=0;

        while(b==false){

        if(m>0 && m<6){

            b=true;

            System.out.println("\nThe timing for "+mov[m-1]+":");

            for(int i=0;i<times.length;i++){

                System.out.println((i+1)+". "+times[i]);

            }

            System.out.println("\nselect the time you want to book:");

            time=sc.nextInt();

            boolean c=false;

            while(c==false){

                if(time>0 && time<5){

                    c=true;

                    System.out.println("\nSelected time : "+times[time-1]);

                }

                else{

                    System.out.println("invalid choice try again:");

                    time=sc.nextInt();

                }

            }

            System.out.println("\nAvalable Seats : 200");

            String[] cat={"Balcony","Middle","Lower"};

            String[] catp={"$250","$150","$100"};

            System.out.println("The available categories");

            for(int i=0;i<cat.length;i++){

                System.out.println((i+1)+". "+cat[i]+" ("+catp[i]+")");

            }

            System.out.println("Enter the Type of seat you want to Book: ");

            int typeofseat=sc.nextInt();

            if(typeofseat<0 && typeofseat>3){

                System.out.println("Invalid choice");

                return;

            }

            System.out.println("\nEnter the no.of Seats you want to Book:");

            int seats=sc.nextInt();

            int total=0;

            if(seats>0 && seats<=200){

                if(typeofseat==1){

                    total=seats\*250;

                }

                else if(typeofseat==2){

                    total=seats\*150;

                }

                else{

                    total=seats\*100;

                }

                System.out.println("\nTotal cost of "+seats+" seats is : $"+total);

                System.out.println("Platform Charges are: $5");

                System.out.println("Your total Payment is "+(total+5));

                System.out.println("\nDo you want to proceed(yes/no): ");

                sc.nextLine();

                String str=sc.nextLine();

                if(str.equals("yes") || str.equals("Yes") || str.equals("YES")){

                     user.payment(total+5);

                }

                else{

                    return;

                }

            }

            else{

                System.out.println("Sorry "+seats+" seats not avalable.");

                System.out.println("You can book only upto 200 seats: ");

                m=sc.nextInt();

            }

        }

        else{

            System.out.println("invalid chocie Try Again :");

            m=sc.nextInt();

        }

    }

    System.out.println("\nCongratulations Your Booking is Conformed!\n\n");

    System.out.println("Your Booking Details are:");

    System.out.println("Location: "+location[loc-1]);

    System.out.println("Theatre Name: "+theatres[th-1]);

    System.out.println("Movie Name: "+mov[m-1]);

    System.out.println("Movie Timings: "+times[time-1]);

    user.time();

    System.out.println("1. Logout");

    int c=sc.nextInt();

    boolean l=false;

    while(l==false){

    if(c==1){

        l=true;

        System.out.println("\nThanks for the Booking!");

        System.out.println("Hope you will enjoy the show!\n");

    }

    else{

        System.out.println("Please Enter 1 to Logout");

        c=sc.nextInt();

    }

    }

}

}

class User{

    static String name;

    static String email;

    static String password;

    static int uc;

   public boolean login(){

        Scanner sc=new Scanner(System.in);

        System.out.println("\nEnter Your Name : ");

        name=sc.nextLine();

        formatter();

        System.out.println("Enter Your Email :");

        User.email=sc.nextLine();

        System.out.println("Enter Your Mail ID Password :");

        User.password=sc.nextLine();

        System.out.println("Enter the below provided OTP :");

        int rc=random();

        System.out.println(rc);

        User.uc=sc.nextInt();

        if(rc==uc){

            return true;

        }

        return false;

   }

   public int random(){

    Random ran=new Random();

    int rc=ran.nextInt(10000);

    return rc;

   }

   public void formatter(){

        Formatter f=new Formatter();

        f.format("\nWelcome, %s!\n",User.name);

        System.out.println(f);

        f.close();

   }

   public String[] movies(){

        String mov[]={"The Conjuring","Insidious","Evil Dead","A Quiet Place","The Death Door"};

        for(int i=0;i<mov.length;i++){

            System.out.println((i+1)+". "+mov[i]);

        }

        return mov;

   }

   public void payment(int price){

        Scanner sc=new Scanner(System.in);

        System.out.println("\nEnter Payment Mode");

        System.out.println("1. Credit Card");

        System.out.println("2. UPI");

        int pay=sc.nextInt();

        if(pay==1){

            System.out.println("\nEnter Credit Card details:");

            System.out.println("Enter credit card number: ");

            int acc=sc.nextInt();

            System.out.println("Enter your credit pin :");

            int pin=sc.nextInt();

            System.out.println("Enter "+price+" rupees: ");

            int amo=sc.nextInt();

            boolean a=false;

            while(a==false){

                if(price==amo){

                    a=true;

                    System.out.println("\nPayment Successful!\n");

                }

                else{

                    System.out.println("\nInvalid amount entered please Enter correct amount :");

                    amo=sc.nextInt();

                }

            }

        }

        else if(pay==2){

            System.out.println("Enter your UPI pin:");

            int pin=sc.nextInt();

            System.out.println("\nEnter "+price+" rupees: ");

            int amo=sc.nextInt();

            boolean a=false;

            while(a==false){

                if(price==amo){

                    a=true;

                    System.out.println("\nPayment Successful!\n");

                }

                else{

                    System.out.println("\nInvalid amount entered please Enter correct amount :");

                    amo=sc.nextInt();

                }

            }

        }

    }

        public void time(){

            LocalDateTime currentDateTime=LocalDateTime.now();

            DateTimeFormatter formatter=DateTimeFormatter.ofPattern("dd-mm-yyyy HH:mm:ss\n");

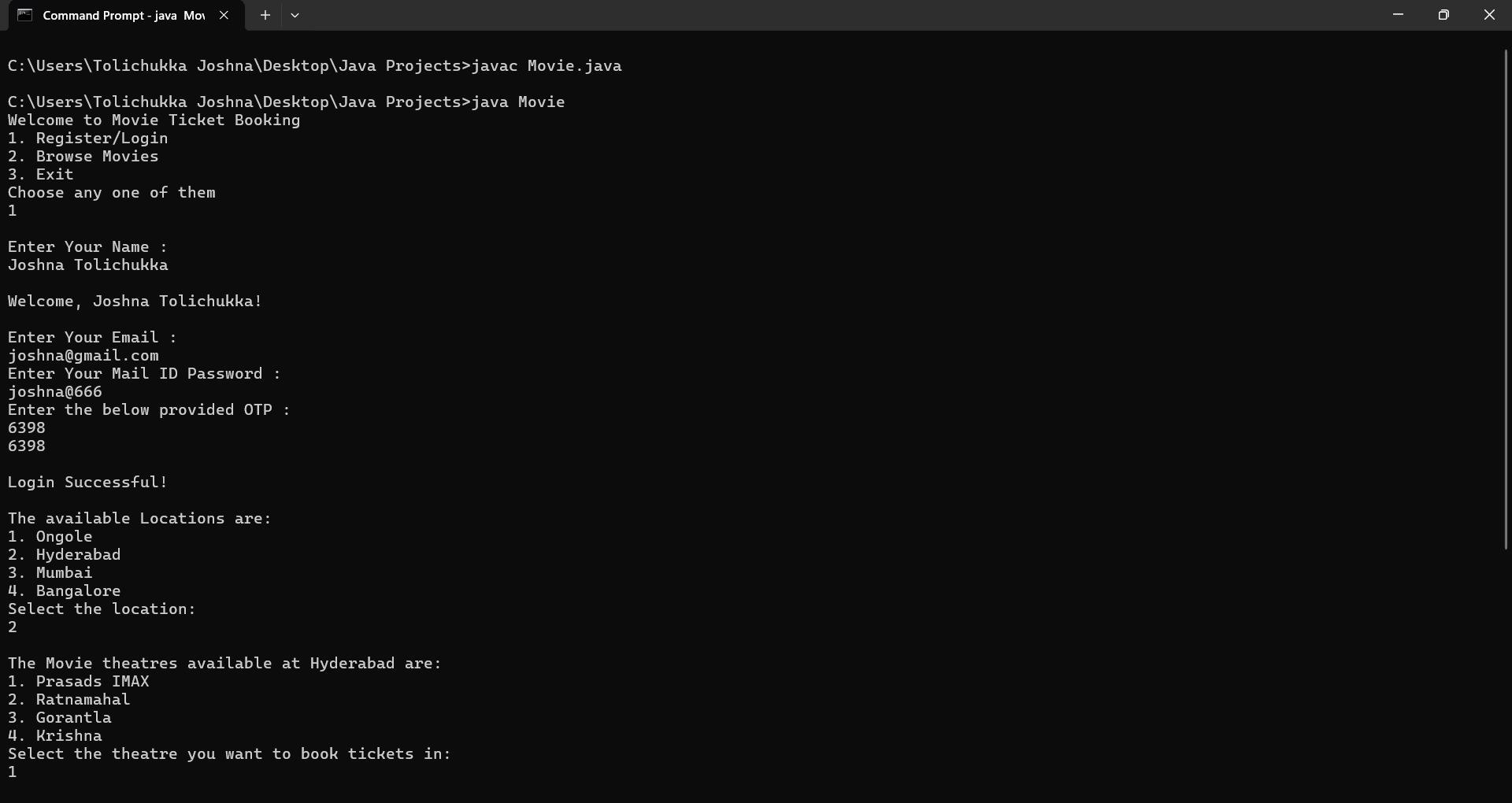
            String formattedDate=currentDateTime.format(formatter);

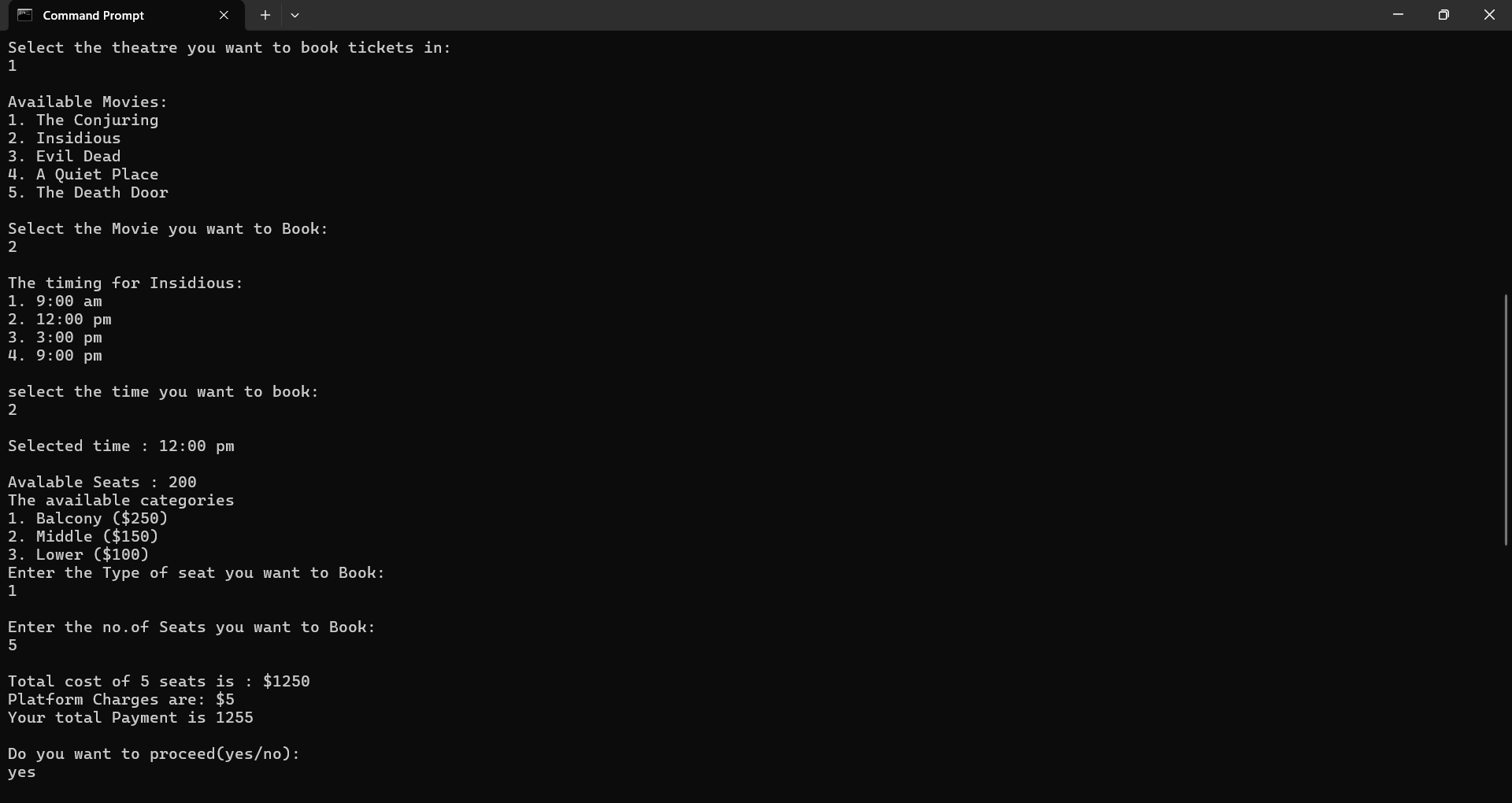
            System.out.println(formattedDate);

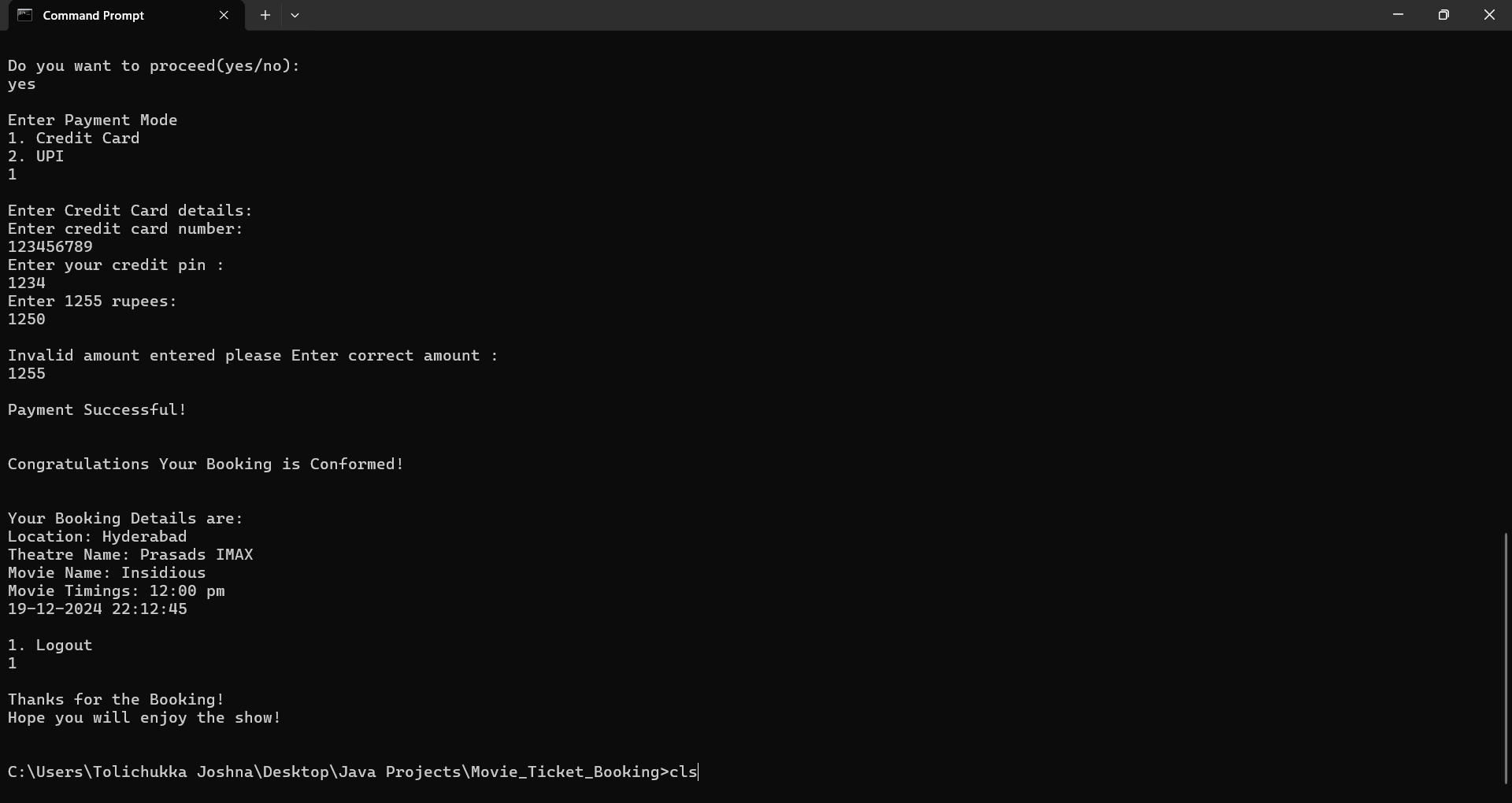
        }

}

**OUTPUT**:-







**Conclusion:-**

The Movie Ticket Booking System project successfully demonstrates how technology can simplify and enhance the movie ticket booking experience. By providing an easy-to-use platform for users to view movie schedules, select showtimes, and purchase tickets, the system streamlines the booking process. Additionally, it allows theater administrators to efficiently manage movie listings, showtimes.

Through features like seat selection, payment integration, and real-time updates, the system ensures a smooth and efficient experience for both customers and staff.