MOVIE TICKET BOOKING SYSTEM

SHOW TIME GENIE

Introduction:

A movie ticket booking system is an application that allows users to browse available movies, select showtimes, choose seats, and book tickets seamlessly. Such systems have become an integral part of modern-day entertainment, making the process of purchasing tickets convenient and efficient.

Mission:

This project aims to cover the fundamental aspects of developing a booking system, including data management, user interaction, and real-time updates, serving as a foundation for more advanced applications.

Services:

Movie List Display:

- Displays a list of movies currently available for booking.
- Users can view all available movies and select one for which they want to book a ticket.

Ticket Booking:

- Confirms the selected seat and updates the seating arrangement to reflect the booked seat.
- Users receive confirmation of their booked seat.

Booking Confirmation:

- Provides a confirmation message to the user indicating successful booking of the selected seat.
- Users are informed of their booking status and details.

Real-time Seat Availability Update:

- Updates the seating arrangement in real-time to reflect the current status of each seat (available or booked).
- Users see up-to-date information about seat availability to make informed decisions.

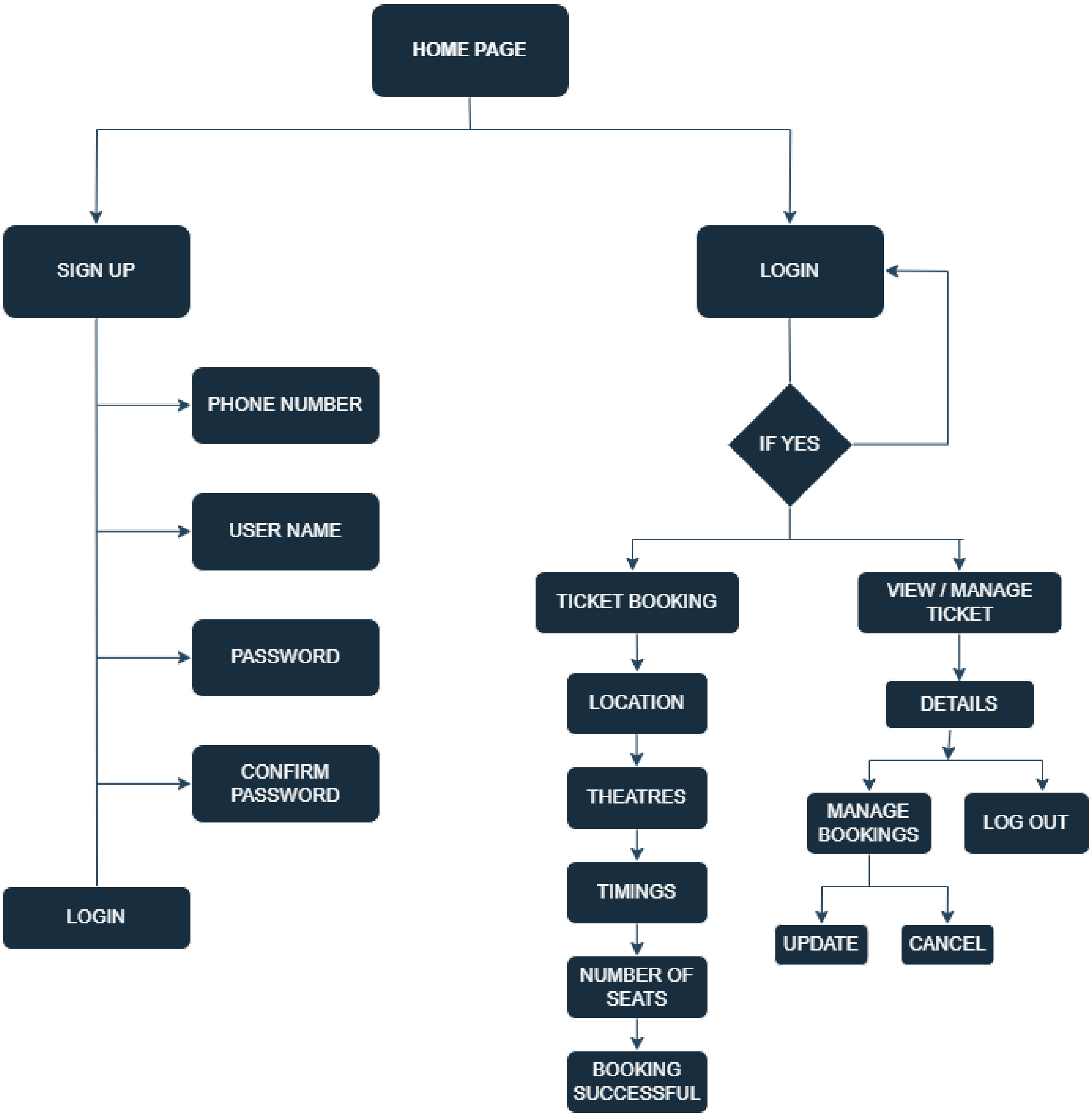
ABSTRACT

- The objective of this project is to develop a simple and interactive movie ticket booking system using Python.
- This system enables users to browse available movies, select a show, choose seats, and book tickets in a seamless manner.
- With the increasing demand for convenient and efficient ticket booking solutions, this project aims to provide a basic yet functional platform that can be used as a foundation for more advanced applications.
- The system uses basic Python data structures such as lists and dictionaries to manage movies and seating arrangements.
- It is designed to provide an intuitive user experience through clear prompts and real-time updates.
- Users can view all available movies, select a preferred movie, choose an available seat from the seating layout, and receive immediate confirmation upon booking.
- This project covers essential aspects of a booking system, including data management, user interaction, and real-time updates, making it a suitable educational tool for understanding the fundamentals of such systems.
- By focusing on simplicity and clarity, the project aims to demonstrate the core principles of developing a booking application, which can be expanded and enhanced with additional features in the future.

INTRODUCTION

- This project aims to develop a simple, interactive movie ticket booking system using Python, focusing on fundamental programming concepts and user-friendly design.
- The primary objective is to create a basic yet functional system that allows users to browse available movies, select a movie, view its seating arrangement, choose and book a seat, and receive real-time updates on seat availability.
- This system offers several benefits, including convenience, time-saving, and real-time availability information.
- Users can book tickets from the comfort of their homes, see which seats are available in real-time, and complete the process faster than traditional methods.
- The key features of the system include displaying a list of available movies, showing a visual representation of the seating layout, allowing seat selection based on real-time availability, confirming the booking, and providing immediate confirmation messages.
- The project leverages Python's simple syntax and powerful data handling capabilities to create a straightforward console application.
- Key concepts include the use of lists and dictionaries to store movies and seating arrangements, interactive user prompts for input and output, and conditionals and loops to handle user selections and update seat availability.
- The implementation involves initializing the system with a list of movies and seating arrangements, creating methods to display movies and seating layouts, handling user interactions for movie and seat selection, and updating seat availability in real-time upon booking.

FLOW CHART


HOME PAGE
SIGN UP
LOGIN
PHONE NUMBER
USER NAME
PASSWORD
CONFIRM PASSWORD
LOGIN
IF YES
TICKET BOOKING
VIEW / MANAGE TICKET
LOCATION
DETAILS
THEATRES
MANAGE BOOKINGS
LOG OUT
TIMINGS
UPDATE
CANCEL
NUMBER OF SEATS
BOOKING SUCCESSFUL

CODE

```python
from collections import deque
class Movie_Ticket_Booking:
    def __init__(self):
        self.theatres = {
            "ASIAN_CINEMAS" : ["Manjummel Boys","Hridayam","Pushpa
2","Aavesham"],
        "PVR" : ["Munjya","Kalki","Crew","3 Moonu"],
        "INOX" : ["Manjummel Boys","Munjya","Kalki","Hridayam"],
        "IMAX" : ["Pushpa 2","Crew","Aavesham","3 Moonu"],
        }
        self.credentials = {"Akshaya":"akshu123",
                            "Revathi":"minnu123",
                            "Charitha":"cherry123",
                            "Varshitha":"varsha123",
                            "Rimsha" : "rimsha123"
                        }
        self.booked_tickets = deque()
        self.a = 0
        self.details = []

    def Sign_Up(self):
        print("")
        print("Sign Up to your account.")
        print("-------------------------")
        username = input("Enter your username: ")
        password = input("Enter your password: ")
        cnfrm_password = input("Confirm your password: ")
        phn_no = input("Enter your phone number: ")
        if password == cnfrm_password:
            print("You have successfully signed up... Now you can log in...")
            self.credentials[username] = password
            return self.Log_In()
        else:
            print("Password Mismatch... Enter your credentials again...")
            return self.Sign_Up()
        print("")


    def Log_In(self):
        print("")
        print("Log In to your account.")
        print("------------------------")
        username = input("Enter your username: ")
        password = input("Enter your password: ")
        if username in self.credentials.keys() and password ==
self.credentials[username] :
            self.user = True
        else:
            print("Invalid Credentials.. Do you want to create a account..")
            print("1 Yes")
            print("2 No")
            choice = int(input("Enter your choice: "))
            if choice == 1:
                self.Sign_Up()
            elif choice == 2:
                self.Log_In()

        print(f"Welcome {username}!")
        if self.a == 1:
            return self.Location()
        else:
            self.a += 1
            return self.Booking()
        print("")


    def Location(self):
        location = ["Hyderabad","Warangal","Karimnagar"]
        print("")
        print("Hi! Welcome to Show Time Genie.")
        print("Choose your location: ")
        for i in range(3):
            print(i+1,location[i])
        print("4 Back")
        loc = int(input("Choose an option: "))
        self.details.append(location[loc - 1])
        return self.Movies()

    def Movies(self):
        movies = ["Manjummel Boys","Munjya","Hridayam","Kalki","Pushpa
2","Crew","Avesham","3 Moonu"]
        print("")
        print("Select your Vibe(Movie): ")
        for i in range(len(movies)):
            print(i+1,movies[i])
        print(len(movies)+1,"Back")
        movie_index = int(input("Choose an option: "))
        movie = movies[movie_index-1]
        self.details.append(movie)
        return self.Theatre(movie)

    def Theatre(self,movie):
        print("")
        print("Choose a theatre: ")
        available_theatres = []

        for theatre, movies in self.theatres.items():
            if movie in movies:
                available_theatres.append(theatre)

        if available_theatres:
            for i in range(len(available_theatres)):
                print(i+1,available_theatres[i])
        print(len(available_theatres)+1,"Back")

        th_index = int(input("Choose an option: "))

        if 1 <= th_index <= len(available_theatres):
            th = available_theatres[th_index-1]
            self.details.append(th)
            return self.Timings(movie,th)
        elif th_index == len(available_theatres) + 1:
            return self.Movies()

    def Timings(self,movie,th):
        Screen1 = ["10.00-1.00","1.10-4.10","4.20-7.20","7.30-10.30"]
        Screen2 = ["10.15-1.15","1.25-4.25","4.35-7.35","7.45-10.45"]
        Screen3 = ["10.30-1.30","1.40-4.40","4.50-7.50","8.00-10.45"]
        Screen4 = ["10.45-1.45","1.55-4.55","5.05-7.55","8.10-10.50"]
        print("")
        print("Select timing: ")
        available_movies = []
        available_movies.extend(self.theatres[th])
        for i in available_movies:
            if i == movie:
                sc = available_movies.index(i)+1
        if sc == 1:
            print("Screen1")
            for i in range(len(Screen1)):
                print(i+1,Screen1[i])
            time = int(input("Choose your timing: "))
            self.details.append(Screen1[time-1])
        elif sc == 2:
            print("Screen2")
            for i in range(len(Screen2)):
                print(i+1,Screen2[i])
            time = int(input("Choose your timing: "))
            self.details.append(Screen2[time-1])
        elif sc == 3:
            print("Screen3")
            for i in range(len(Screen3)):
                print(i+1,Screen3[i])
            time = int(input("Choose your timing: "))
            self.details.append(Screen3[time-1])
        elif sc == 4:
            print("Screen4")
            for i in range(len(Screen4)):
                print(i+1,Screen4[i])
            time = int(input("Choose your timing: "))
            self.details.append(Screen4[time-1])
        return self.Seats()

    def Seats(self):
        total_availability = 120
        sold = 0
        remaining = 120
        print("")
        print("Total Seats: ",total_availability)
        print("Number of sold seats: ",sold)
        print("Number of seats remaining: ",remaining)
        no_of_seats = int(input("Enter no of seats you want to book: "))
        if remaining >= no_of_seats:
            confirmation = input("Do you want to confirm your booking?
(Yes/No) ")
            if confirmation == "Yes":
                self.details.append(no_of_seats)
                remaining -= self.details[len(self.details)-1]
                sold += self.details[len(self.details)-1]
                return self.Booking()
            elif confirmation == "No":
                print("Your booking is not confirmed..")
                return self.Seats()
        else:
            print(no_of_seats," Seats are not available..")
            print("Available seats are: ",remaining)
            back = input("Do you want to go back? Yes/No")
            if confirmation == "Yes":
                return
self.Timings(self.details[1],self.details[2],self.details)
            elif confirmation == "No":
                return self.Seats()

    def Booking(self):
        if self.a == 1:
            print(self.details["*****",len(self.details)-1]," Seats booked
successfully *****")
            self.booked_tickets.append(self.details)
            return self.view_Bookings()
            self.a-=0
        elif self.a == 0:
            return self.Log_In()
    def view_Bookings(self):
        if not self.booked_tickets:
            print("\nNo tickets booked yet.")
        else:
            print("\nBooked Tickets:")
            print("==================")
            details = []
            for i in range(len(self.booked_tickets)):
                details.extend(self.booked_tickets[i])
                print(f"Ticket          :   {i+1}")
                print(f"Location        : {details[0]}")
                print(f"Movie Name      : {details[1]}")
                print(f"Theatre         : {details[2]}")
                print(f"Timings         : {details[3]}")
                print(f"Number of seats : {details[4]}")
                print("")
            a = input("Do you want to manage booking or Log out? manage/log
out - ")
            if a == "manage":
                return self.manage_booking()
            elif a == "log out":
                return self.Home()
            else:
                print("Invalid option.. Try Again...")
                return self.view_Bookings()

    def manage_booking(self):
        booking_id = int(input("Which booking do you want to manage: "))
        cncl_or_mng = input("Do you want to manage this booking? yes/no ")
        details = []
        details = self.booked_tickets[booking_id-1]
        print("")
        print(f"Ticket          : {booking_id}")
        print(f"Location        : {details[0]}")
        print(f"Movie Name      : {details[1]}")
        print(f"Theatre         : {details[2]}")
        print(f"Timings         : {details[3]}")
        print(f"Number of seats : {details[4]}")
        print("")
        if cncl_or_mng == "yes":
            print("What do you want to do?")
            print("1 Increase Seats")
            print("2 Cancel booking")
            self.a = int(input("Choose an option: "))
            if self.a == 1:
                return self.Seats()
            elif self.a == 2:
                self.booked_tickets.remove(details)
```

```python
                print("Your booking is successfully cancelled.")
                return self.Home()

    def Home(self):
        print("")
        home = ["Sign Up","Log In","View Home"]
        for i in range(3):
            print(i+1,home[i])
        select = int(input("Choose an option: "))
        if select == 1:
            self.a += 1
            return self.Sign_Up()
        elif select == 2:
            self.a +=1
            return self.Log_In()
        elif select == 3:
            return self.Location()

mov = Movie_Ticket_Booking()
mov.Home()
```

OUTPUT

Home -

```
1 Sign Up

2 Log In

3 View Home

Choose an option: 1
```

Sign Up –

```
Sign Up to your account.

------------------------------

Enter your username: Admin

Enter your password: admin123

Confirm your password: admin123

Enter your phone number: 0123456789

You have successfully signed up... Now you can log in...
```

Login –

```
Log In to your account.

----------------------------

Enter your username: Admin

Enter your password: admin123

Welcome Admin!
```

Location Selection –

```
Hi! Welcome to Show Time Genie.

Choose your location:

1 Hyderabad

2 Warangal
```

```
3 Karimnagar

4 Back

Choose an option: 1
```

Movie Selection –

```
Select your Vibe (Movie):

1 Manjummel Boys

2 Munjya

3 Hridayam

4 Kalki

5 Pushpa 2

6 Crew

7 Avesham

8 3 Moonu

9 Back

Choose an option: 1
```

Theatre Selection –

```
Choose a theatre:

1 ASIAN_CINEMAS

2 INOX

3 Back

Choose an option: 1
```

Timings Selection –

```
Select timing:

Screen1

1 10.00-1.00

2 1.10-4.10
```

```
3 4.20-7.20

4 7.30-10.30

Choose your timing: 1
```

Number of seats Selection and Booking –

```
Total Seats:  120

Number of sold seats:  0

Number of seats remaining:  120

Enter no of seats you want to book: 10

Do you want to confirm your booking? (Yes/No) Yes

***** 10  Seats booked successfully *****
```

View Bookings –

```
Booked Tickets:

==================

Ticket            :   1

Location          : Hyderabad

Movie Name        : Manjummel Boys

Theatre           : ASIAN_CINEMAS

Timings           : 10.00-1.00

Number of seats   : 10
```

Manage Booking –

```
Do you want to manage booking or Log out? manage/log out - manage

Which booking do you want to manage: 1

Do you want to manage this booking? yes/no yes


Ticket          : 1

Location        : Hyderabad
```

```
Movie Name      : Manjummel Boys

Theatre         : ASIAN_CINEMAS

Timings         : 10.00-1.00

Number of seats : 10


What do you want to do?

1 Increase Seats

2 Cancel booking

Choose an option: 1


Total Seats:  120

Number of sold seats:  0

Number of seats remaining:  120

Enter no of seats you want to book: 5

Do you want to confirm your booking? (Yes/No) Yes

***** 5  Seats booked successfully *****


Booked Tickets:

==================

Ticket          :   1

Location        : Hyderabad

Movie Name      : Manjummel Boys

Theatre         : ASIAN_CINEMAS

Timings         : 10.00-1.00

Number of seats : 10


Ticket          :   2

Location        : Hyderabad

Movie Name      : Manjummel Boys

Theatre         : ASIAN_CINEMAS
```

```
Timings             : 10.00-1.00
Number of seats  : 10

Do you want to manage booking or Log out? manage/log out - manage
Which booking do you want to manage: 1
Do you want to manage this booking? yes/no yes

Ticket             : 1
Location           : Hyderabad
Movie Name        : Manjummel Boys
Theatre             : ASIAN_CINEMAS
Timings             : 10.00-1.00
Number of seats  : 10

What do you want to do?
1 Increase Seats
2 Cancel booking
Choose an option: 2
Your booking is successfully cancelled.
Ticket             :   1
Location           : Hyderabad
Movie Name        : Manjummel Boys
Theatre             : ASIAN_CINEMAS
Timings             : 10.00-1.00
Number of seats  : 10
```

CONCLUSION

The development of the basic Online Movie Ticket Booking System Using Python demonstrates the integration of various programming concepts to solve a real-world problem efficiently. This project encapsulates core functionalities such as user authentication, movie selection, theatre selection, and seat booking, offering a streamlined experience for users. The system is both robust and user-friendly. This project not only serves as a practical application of theoretical knowledge but also lays the groundwork for further enhancements. Overall, this project underscores the potential of Python in building scalable and effective solutions in the domain of online services.

REFERENCES

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https://www.geeksforgeeks.org/python-programming-language-tutorial/