

The Topic

Movie Theatre Reservation System

Description of the project

An application for maintaining a movie theater reservation system. The system has the following minimum requirements:

- The theater has several (differently sized) halls
- The theater shows several movies at the same time
- Each hall has several screenings a day
- A customer can reserve a seat for any show (provided there is room in the hall)
- The administrator can add movies and screenings as well as browse reservations

The application have either a text-based interface separately for both the customer and the administrator.

All data used by the application saved to a text file.

The structure of the project

The project is divided into following functions

1. registerCustomer() - New Customer registration
2. login() - Customers and Admin can log into the system using login
3. readUserData() - read the user data (username, password) and store it in a dictionary
4. dateSelect() - Customer or Admin can select a date using this function
5. reserveSeat() - Customer can reserve seat using this function
6. movieList() - read all movies showing in the theatre and reservations in those movies
7. browseReservation() - Admin can browse reservation using this function
8. addMovie() - Admin can add new movies using this function
9. addScreeningTime() - A new screening time can be added using this function
10. createReservationFile() - Admin can create a new reservation file using this function
11. main() - main function in python

The functions used and their interrelationships

- main() function is used to call functions 'login'.
- 'login' function calls function 'registerCustomer' & 'readUserData'.
- 'reserveSeat' function calls 'dateSelect' and 'movieList'.

The use of external libraries

- import math – for addition
- import datetime – for date format
- import ast – parsing data