

OBJECT ORIENTED PROGRAMMING WITH JAVA

MOVIE TICKET BOOKING PORTAL

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INTRODUCTION

Movie Ticket Booking Portal provides all the basic functionality of a modern day Multiplex with multiple screens and all other functionalities like ticket booking, food ordering etc. The functionality is divided into four different modules, Theater, User, Admin and Transaction which perform their independent functions.

The theater module manages the functions of movie screening and consists of classes and Interfaces related to the Screens, time Slots, etc. for movie screenings.

The User module is meant for the customer wherein he can perform ticket bookings and food ordering.

The admin module provides the administrative operations for the theater.

Transaction Module manages all the transactions of the customer with the theater.

The four modules function parallelly to function as a modern day multiplex.

MODULES

1. Theater
2. User
3. Admin
4. Transaction

0.1 THEATER MODULE

Theater module manages all the functionalities of the theater. The theater consists of 3 screens and the timings of shows are divided into 3 slots.

Classes

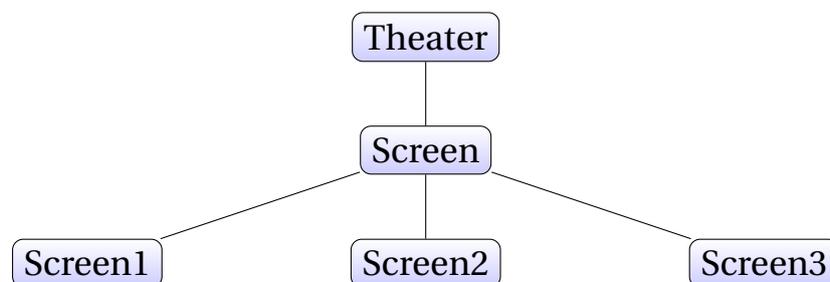
1. Screen
2. Movie
3. Show

Interfaces

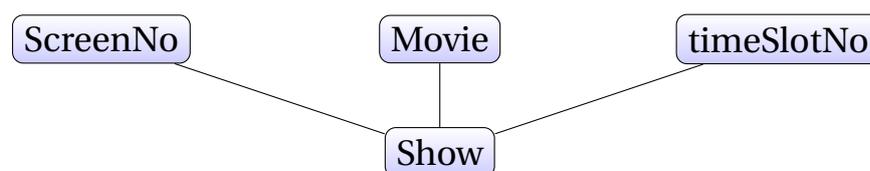
1. Screen1, Screen2, Screen3
2. timeSlot1, timeSlot2, timeSlot3

Inheritance Structure

The screen class consists of the hall capacity which is same for all the 3 screens. Three interfaces for each screen inherit from this screen class.



There are 3 time slots in the form of interfaces. Movie class contains the information about movie like movie name, base price, etc. The show class extends the movie class and implements 2 interfaces one from the three screens and one from the three time slots.



That is, every show of a specific movie has some time slot and Screen no.

0.2 USER MODULE

The User Module consists of class user which contains the user's information, email-id, username etc. It has functions to authenticate the user. After authentication, the user can make transactions for booking tickets or ordering food.

Classes

1. user

Inheritance Structure

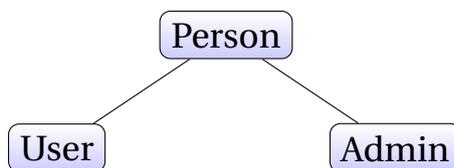
The class user inherits from class Person which contains the basic details of a person like name etc.

0.3 ADMIN MODULE

The admin module is for the administrator or the manager who has access to change the informations of movies, screens, time slots etc. after authentication. This module contains the information of admin like username and functions for authentication, changing time slots, changing screen details like capacity, changing ticket prices (mentioned in transaction module)

Inheritance Structure

The class admin inherits from class Person which contains the basic details of a person like name etc.



The person class contains the details of the person (user or admin).

0.4 TRANSACTION MODULE

The transaction module is used for managing all the transactions like ticket booking and food ordering.

Classes

1. Ticket
2. Food

Interfaces

1. Gold, Silver, Platinum

Inheritance Structure

Transactions are of two types Ticket and food.

Gold, silver and platinum are three different types of seats. Every movie ticket extends the **show** class from Theater module and implements one of the three interfaces of types of seat. The ticket price is calculated by adding the base price of the movie and the price for the seat type.

