

Description of Attributes

Location:

- **movies:** Movie() String : Attribute holds the location of a specific movie name in the system.
- **moviePopularity(Movie):** double : Attribute gets popularity of movie and stores as moviePopularity type, once a specific movie is imputed.
- **seatMap:** char, int : Holds specific layout of seating for users to input a character or integer value (ex: B6).
- **theaterRewards:** bool : Stores a true or false value for user input if user is part of the rewards program on the system.

IMDbRT:

- **movieName:** string : Stores movie name input from Imdb data as a string.
- **movieRating:** int : Movie rating from IMDb data as an integer.
- **actors:** string : Name(s) of actors stored as string.

Ticket:

- **seat:** (char, int) : Location of a specific seat on the seating chart/map of each theater in the system labeled as character and integer value (ex: Seat H4)
- **price:** double : Price value for ticket at theater imputed as a double.
- **seatStatus:** string : String value that provides the user with status of current seat they have selected or would like to purchase.

Movie:

- **movieName:** string : Stores name of any movie as a string data type.
- **showingDate:** int : Provides movie showtime date as an integer (ex: 1/15/2023)
- **showingTime:** int : Shows movie showtime as an integer (ex: 10:45)
- **Screen:** int : Provides the number of screen corresponding to the theater in which the movie will be played (ex: Screen #2) however, this value is stored just as an integer therefore would just be (ex: 2).
- **rating:** string : user is allowed to see movie rating based on a written review shown as a string.
- **location:** string : Location of movie theater.

- **seatStatus:** string : Displayed if seat is occupied or empty.
- **seatLocation:** <char, int> : Provides location of seat on seat map (ex: Seat F3)

EmployeeInfo:

- **employeeID:** int : Displays employees ID #
- **managerID:** int : Displays manager's ID #

PearPay

- **transactionID:** string : ID# of a specific transaction
- **userTicket:** Ticket : Displays user ticket.
- **validCardInfo:** bool : Shows user's card info accepted or not.

UserInfo:

- **rewardsPoints:** int : Displays user rewards points as an int.
- **rewardsMember:** bool : Shows if user is a rewards member or not.
- **discountStatus:** bool : Displays if user is currently receiving a discount on ticket pricing.

AccountInfo:

- **userName:** string : Name user inputs to log into system and account.
- **password:** string : Password for user to log into system.
- **phoneNumber:** string : Phone number for user to receive information/tickets.
- **email:** string : Email address where user can receive info/tickets.
- **creditCard:** int : Saves card information for user to make recurring purchases.

Description of Operations:

Location:

- updateMovie(Movie) : void : Updates movie into system returning void.
- seatOccupancy(Movie.seatMap()): int : Returns an integer describing the amount of seats a specific movie is showing.
- chekTheaterRewards(); bool : Checks whether the user is a rewards member at the theater, returns true or false.

Ticket:

- buyTicket(): void : Allows the user to purchase ticket, returns void.
- viewTicket(): void : Allows the user to view specific ticket they have purchased.
- transferTicket(): void : User can transfer ticket to another user in the system.
- ticketMaxCount(): bool : Specifies whether or not tickets are full or not.

Movie

- setName(String); void : Sets movie name as a string.
- getName(): string : Gets name of a specific movie and returns a string.
- setTime(int): void : Sets movie times as an int.
- getTime(): double : Gets movie time as a double.
- setDate(String): void : Sets movie date as a string.
- getDate(): String Gets movie date, returns value as a string.
- setScreen(int): void : Sets movie screen number.
- getScreen(): int : Gets movie screen number.
- getRating(Movie.getName): String : Gets movie rating based on movie name.
- getLocation(Movie.getName, Movie.getDate): String : Gets movie location based upon date and name of movie, shows available theaters.
- getSeatStatus(Movie.getName, Movie.getLocation, Movie.getScreen(): String : Gets seat status depending on the movie, theater location and screen number. Returns a string verification.
- getSeatLocation(getSeatStatus.Movie): <char, int> : Gets seat location based upon movie status.

Employee Info

- updateMovie(Movie, int): void : Updates movies
- deleteMovie(Movie): void : Deletes specific movie

- addMovie(Movie): void : Adds movie into system.
- verifyRewards(userTicket): void : Verifies rewards of user.
- nullifyTickets(userTicket): void : Movies user ticket.

PearPay

- purchaseNumber(userTicket): int : user can purchase ticket through PearPay
- maxTicket(): bool : Max tickets true or false.

UserInfo

- updateRewardsPoints(Movie.rewardsMember): int : updates user rewards
- viewMovies(): void : Allows user to view movies.
- pickMovie(): void : User can pick movies
- cancelTicket(): void : User can cancel order.