

## Hotel

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Defines Hotel</li><li>• Stores the Hotel</li><li>• Gets type of Hotel</li><li>• Adds new room type to Hotel</li><li>• Gets number of rooms in Hotel</li></ul> | <ul style="list-style-type: none"><li>• TypeOfRoom</li></ul> |
|---|--|

## HotelInitialiser

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Reads Hotel and Room data from specified file</li><li>• Creates appropriate Hotel and TypeOfRoom objects and stores in list</li></ul> | <ul style="list-style-type: none"><li>• Hotel</li><li>• TypeOfRoom</li></ul> |
|---|--|

## Room

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Defines a room(ie. type,occupancy,room number)</li><li>• Stores room</li><li>• Finds how many rooms of this type are available between two dates</li><li>• Returns the cost of a room by passing in the room's rates for the week</li></ul> | <ul style="list-style-type: none"><li>• Reservation</li><li>• ReservationCancellationManager</li><li>• TypeOfRoom</li><li>• Hotel</li><li>• HotelInitialiser</li></ul> |
|---|--|

## TypeOfRoom

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Defines Room Types</li><li>• Creates room object with type, occupancy and rates</li><li>• Returns number of this type of room available</li></ul> |  |
|---|--|

## Cancellation

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Gets Cancellation date</li> <li>• Creates Cancellation object</li> <li>• Returns Reservation date belonging to Cancellation.</li> <li>• Returns if Cancellation can be refunded</li> <li>• Returns Cancellation date</li> <li>• Convert to Csv format</li> <li>• Checks if reservation is refundable</li> </ul> | <ul style="list-style-type: none"> <li>• Reservation</li> </ul> |
|--|---|

## Reservation

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Defines Reservation (ie. Standard or Advanced Purchase, check in and check out date,type of Room, occupancy,cost)</li> <li>• Stores the reservation</li> <li>• Calculates cost</li> </ul> | <ul style="list-style-type: none"> <li>• Room</li> </ul> |
|--|--|

## Data Analysis

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Returns occupancy figures for each Hotel and Room type</li> <li>• Returns occupancy figures for each Hotel and Room type over specific period of time</li> <li>• Returns income figures for each hotel and room type</li> <li>• Returns income figures for each hotel and room type</li> <li>• Returns income figures for each hotel and room type over specific period of time</li> <li>• Goes through all cancellations and sees if there are income to be made from reservations that can't be cancelled</li> <li>• Returns cost of a room</li> </ul> | <ul style="list-style-type: none"> <li>• HotelInitialiser</li> <li>• Hotel</li> <li>• Reservation</li> <li>• Room</li> <li>• TypeOfRoom</li> <li>• Room</li> <li>• Cancellation</li> <li>• RandomReservationsGenerator</li> </ul> |
|---|---|

## InputScanner

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>• Uses InputValidator and allows users to input their choices. Also allows them to re-enter until they reach a choice that is acceptable.</li><li>• Takes the user through a bunch of reservation questions so a reservation instance can be completed</li></ul> | <ul style="list-style-type: none"><li>• InputValidator</li><li>• Reservation</li><li>• Room</li></ul> |
|--|---|

## InputValidator

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>• Necessary for other classes as it has various methods using regex</li><li>• Validates the input if it is in the range given</li><li>• Validates if the String input is an integer or not</li><li>• Validates if the String input is a reservation type</li><li>• Validates if String input is a double</li><li>• Validates if String correctly represents an occupancy</li><li>• Validates if String correctly represents a date</li></ul> |  |
|--|--|

## PrintedMenus

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Necessary to print the menu that allows the user to see which options one might have.</li><li>• Menu that gives the options for each submenu</li><li>• Analytical menu that gives options for different sections</li><li>• Method that prints out each String needed for the user</li></ul> |  |
|---|--|

## Reader

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>• Will read the contents of files and convert them into Reservation and/or Cancellation objects.</li></ul> | <ul style="list-style-type: none"><li>• Reservation</li><li>• Cancellation</li><li>• Room</li></ul> |
|--|---|

## Writer

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>Writes both reservations and cancellations</li></ul> | <ul style="list-style-type: none"><li>Reservation</li><li>Cancellation</li></ul> |
|--|--|

## ReservationCancellationManager

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>Keeps track of all the reservations</li><li>Provides numerous functionalities for these reservations.</li></ul> | <ul style="list-style-type: none"><li>Reservation</li><li>Cancellation</li></ul> |
|---|--|

## ReservationSystem

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>Creates menus and sub menus so that the user can use all the different methods we have created.</li><li>Contains main run function which runs the startup menu</li></ul> | <ul style="list-style-type: none"><li>InputScanner</li><li>PrintedMenus</li><li>Reader</li></ul> |
|--|--|

## SystemMain

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>Main driver of text UI</li></ul> | <ul style="list-style-type: none"><li>ReservationSystem</li></ul> |
|--|---|