

A Parking Garage has an (aggregated) Entry Camera Class, Sensors, and an Exit Camera Class. The cameras are fitted with a Number Plate Reader (NPR). Both cameras capture the client's number plate, while the sensors determine which parking spots are available.

A parking garage also has an (aggregated) debt machine to charge clients for overtime and unregistered users. A parking garage has an (aggregated) system.

The Parking Garage class was added so that the system is not limited to only one garage, allowing Eduvos to expand their parking garage or use the same system across all campuses. The system is associated with a GUI class. The GUI class captures client information and updates to reservations.

The system is composed of a database; without this database, the system cannot exist meaningfully. The System class gets the client's information, checks it, and sends it to the database if correct. The System class creates a User on the system, representing the client. The System class then starts a timer, determines how long the user parked overtime, and finally calculates the cost.

The database class stores all details provided by the system and updates any details or users where applicable.

The System class has a User. The User class stands between the Reservation class and other classes.

The User has a Vehicle, and if the user has a borrowed vehicle, the Borrowed Vehicle class inherits its data types, etc., from its parent class, Vehicle. The client has a Reservation, so a Reservation class was created.

The Reservation class gets all the details from the system and updates the reservation if there is an update. The Reservation class has a Payment class. The Payment class accepts user payments and sends a receipt to the Reservation class, which then emails the client with the reservation details and receipt.

The Reservation class is directly associated with the Borrowed Vehicle class so it can assign a temporary number if the user updates the reservation with a borrowed vehicle. There are two types of reservations: Monthly and Daily. Both inherit operations and attributes from their parent class, Reservation.

Since there is no stated difference between the reservations, they were added for future purposes, should Eduvos decide to add different rules between the two reservation types.

