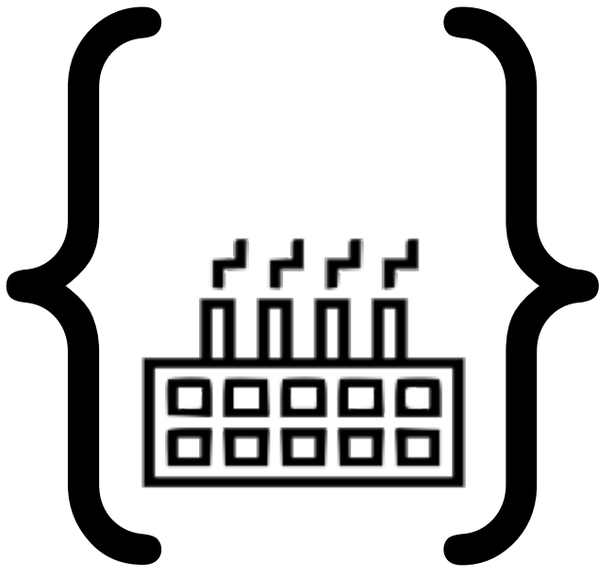

AppMillers

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Project 41 - Bike Rental System OOP

Description

This project simulates simple Bike Rental System which performs various functionality. There are two participant of this system - customers and bike rental system. Each of them has their functionality that can be performed. Customer can request only one type of rental i.e hourly, daily or weekly. They are free to choose the number of bikes they want and requested bikes should be less than available stock.

Customers:

- See currently available bikes in the rental system
- Rent bikes on hourly basis and it costs $5 per hour.
- Rent bikes on daily basis and it costs $20 per day.
- Rent bikes on weekly basis and it costs $60 per week.
- Family Rental, a promotion that can include from 3 to 6 bikes (of any type) with a discount of 30% of the total price

Bike rental system:

- Issue a bill when customer decides to return the bike.
- Display available bikes in the system
- Take requests on hourly, daily and weekly basis by verifying available bikes

Steps for development

TODO 1 - Create Bike Rental Class and initialize `stock` attribute

TODO 2 - Create a method to display stock

TODO 3 - Create a method to rent bike on hourly bases

TODO 4 - Create a method to rent bike on daily bases

TODO 5 - Create a method to rent bike on weekly bases

TODO 6 - Create a method to return bike from the system

TODO 7 - Create Customer Class and initialize attributes

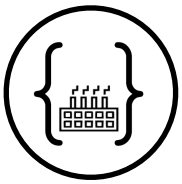
TODO 8 - Create a method to request bike from the system

TODO 9 - Create a method to return bike to the system

TODO 10 - Main program logic : print options to the console

TODO 11 - Ask from user to get option (check if it is int)

TODO 12 - Based on selected choice call methods from Bike Rental and Customer classes.



`BikeRental` Class

This class is used to represent Bike Rental system

Attributes:

- **stock**
  (int) The number of bikes that are available currently in the system
  ex. 100

`Methods:`

- **display_stock()**
  (int) Displays the bikes currently available for rent in the system
  ex. 100

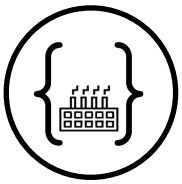
- **rent_bike_on_hourly_basis()**
  To rent a bike on hourly basis to a customer
- **rent_bike_on_daily_basis()**
  To rent a bike on daily basis to a customer
- **rent_bike_on_weekly_basis()**
  To rent a bike on weekly basis to a customer
- **return_bike()**
  Accept a rented bike from a customer, increase number of available bikes and return a bill

`Customer` Class

This class is used to represent Customer objects

Attributes:

- **bikes**



(int) The number of bikes that customer rented

- **rental_basis**
  (int) The number for rental type (hourly, daily, weekly)
- **rental_time**
  (int) The rental duration
- **bill**
  (int) The amount that needs to be payed

Methods:

- **request_bike()**
  Takes a request from the customer for the number of bikes
- **return_bike()**
  Allows customers to return their bikes to the rental shop