



Batriaka Battery Rentals

Batriaka is a shop which is famous for renting the customizable rechargeable batteries of different types to different customers. The company first purchase batteries from the supplier on quarterly basis (*every six month*). Every day they charge those batteries and customers can use those batteries for their personal usage in cars or motorbikes etc. Customers can rent batteries on hourly, daily, weekly and monthly basis. In the start it was fine to system work manually. But, with the passage of time the shop owner wants the system to run automatically. The normal users of the systems will consist of three entities Customer, Company owner and Admin Staff. The functionalities which the following entities can do is present in the bellow section.

Customers Can:

- What type of batteries are available in the stock?
- Can view the battery configurations and specifications. (Note: Price of the battery varies because of different specifications)
- See Charged Available Batteries in Shop.
- Rent Batteries on hourly basis \$2 per hour.
- Rent Batteries on daily basis 10\$ a day.
- If want to rent weekly the charges can be 25\$.
- Rental Charge for a month is 40\$.
- Friend Promotion, a promotion in which customers can rent 4 to 6 batteries (of any type) with the discount of 20\$ of total price.
- Buy 3 get half Promotion, a promotion in which if a customer rent 3 bike batteries at same time he can get all three batteries in half price.

Admin Can:

- Enter/Delete/Update the batteries information
- See Un-Charged un-available Batteries in Shop.
- Make reservations for customers.
- Display available inventory of batteries. (Not: The inventory includes the battery classification for example bike battery availability in stock, car battery, home battery up to five categories)
- When customer return the battery issues a bill.
- Take request from customers and issue battery on hourly, daily, weekly, monthly basis.
- Can take suggestions/Complaints from Customers if needed.

Note: Since Classes are used various customers and battery rental shops can be instantiated as needed. For simplicity we assume any customer can rent batteries of only duration like hour, daily, weekly, monthly but the type of battery is not limited.

Owner can:

- See over all working of the System
- View daily invoice
- Can See Staff Information
- Stock availability.
- Make Request for New Batteries

Project Requirements:

The following project should be developed in Python. You can use different concepts of Object-oriented Paradigm i.e, Inheritance, Polymorphism, Encapsulation and Abstraction for development of following project. In the start the menu bar appears for the user using system and the software can then proceed with the basis user login. There should be little differentiation between the user portals like what an owner has the privilege to see the customers can't have access to it same goes with the admin and Customers.