CarRental

October 13, 2024

[1]:

```
import datetime
```

Business Class For validating the Hourly Daily and Weekly Car Rend calculation

[5]:

```
class CarRetail:
    def __init__(self,stock):
        self.stock=stock

    def displayStock(self):
        print("we have {} cars are available for rent".format(self.stock))

    def rentCarForHourly(self,n):
        if n<1:
            print("Numbers of cars should be positive")
            return None
        if(n>self.stock):
            print("sorry ! we have only {} this much of cars are available")
            return None
        else:
            now=datetime.datetime.now()
            print("{} car is rent Hourly basis at today {} hours".format(n,now.
 ↪hour))
            print("5$ are charge per hours")
            self.stock-=n
            return now

    def rentCarForDaily(self,n):
        if n<1:
            print("Numbers of cars should be positive")
            return None
        if(n>self.stock):
            print("sorry ! we have only {} this much of cars are available")
            return None
        else:
            now=datetime.datetime.now()
            print("{} car is rent daily basis at today {} hours".format(n,now.
 ↪hour))
            print("20$ are charge per Day")
            self.stock-=n
            return now

    def rentCarForWeekly(self,n):
        if n<1:
            print("Numbers of cars should be positive")
            return None
        if(n>self.stock):
            print("sorry ! we have only {} this much of cars are available")
            return None
        else:
            now=datetime.datetime.now();
            print("{} car is rent weekly basis at today {} hours".format(n,now.
↪hour))
            print("60$ are charge per week")
            self.stock-=n
            return now

    def returnCar(self,request):
        rentaltime,rentalbasis,numofcar=request
        bill=0
        if rentaltime and rentalbasis and numofcar:
            self.stock+=numofcar
            now=datetime.datetime.now()
            rentalPeriod=now-rentaltime

            if rentalbasis==1:
                bill=round(rentalPeriod.seconds/3600)*5*numofcar

            elif rentalbasis==2:
                bill = round(rentalPeriod.days) * 20 * numofcar

            elif rentalbasis==3:
                bill = round(rentalPeriod.days/7) * 60 * numofcar

        if 3<=numofcar<=5:
            bill=bill*.7
        print("Rent Fee Amount {}".format(bill))
        print("Thanks for reaching us")
```

Model Class For the Car Rent State Information

[2]:

```
class Customer:
    def __init__(self):
        self.car=0
        self.rentaltime=0
        self.rentalbasis=0
        self.bill=0

    def requestCar(self):
        cars=input("How many cars would you like to rent?")

        try:
            cars=int(cars)
        except ValueError:
            print("Thats not positive interger")
            return -1

        if cars< 1:
            print("invaild input .numbers of cars should be greater than zero")
            return -1
        else:
            self.car=cars
        return self.car

    def returnCar(self):
        if self.rentaltime and self.rentalbasis and self.car:
            return  self.rentaltime,self.rentalbasis,self.car
        else:
            return 0,0,0
```

Main Class for Execution Entry alias Controller

[7]:
```
def main():
    shop=CarRetail(100)
    customer=Customer()

    while True:
        print("""
        ====================Card Rental Shop-============
        1.Display Available Cars
        2.Request a car on hourly basis $5
        3.Request a car on daily basis $20
        4.Request a car on weekly basis $60
        5.Return a Car
        6.Exit
        """)
        try:
            choice=int(input("Enter your choice: "))
        except ValueError:
            print("That's not a valid choice")
            continue

        if choice==1:
            shop.displayStock()
        elif choice==2:
            customer.rentaltime=shop.rentCarForHourly(customer.requestCar())
            customer.rentalbasis=1
        elif choice==3:
            customer.rentaltime = shop.rentCarForDaily(customer.requestCar())
            customer.rentalbasis = 2
        elif choice==4:
            customer.rentaltime = shop.rentCarForWeekly(customer.requestCar())
            customer.rentalbasis = 3
        elif choice==5:
            customer.bill=shop.returnCar(customer.returnCar())
            customer.rentalbasis,customer.rentaltime,customer.car=0,0,0
        elif choice==6:
            break
```

Checking the AVailable Car and Rent the 22 Car again we checking the available car now , finally return the car

```
[8]: main()
```

```
        ====================Card Rental Shop-============
        1.Display Available Cars
        2.Request a car on hourly basis $5
        3.Request a car on daily basis $20
        4.Request a car on weekly basis $60
        5.Return a Car
        6.Exit


Enter your choice:  1

we have 100 cars are available for rent

        ====================Card Rental Shop-============
        1.Display Available Cars
        2.Request a car on hourly basis $5
        3.Request a car on daily basis $20
        4.Request a car on weekly basis $60
        5.Return a Car
        6.Exit


Enter your choice:  2
How many cars would you like to rent? 22

22 car is rent Hourly basis at today 6 hours
5$ are charge per hours
```

```
        ====================Card Rental Shop-============
        1.Display Available Cars
        2.Request a car on hourly basis $5
        3.Request a car on daily basis $20
        4.Request a car on weekly basis $60
        5.Return a Car
        6.Exit

Enter your choice:  1

we have 78 cars are available for rent

        ====================Card Rental Shop-============
        1.Display Available Cars
        2.Request a car on hourly basis $5
        3.Request a car on daily basis $20
        4.Request a car on weekly basis $60
        5.Return a Car
        6.Exit

Enter your choice:  5

Rent Fee Amount 0
Thanks for reaching us

        ====================Card Rental Shop-============
        1.Display Available Cars
        2.Request a car on hourly basis $5
        3.Request a car on daily basis $20
        4.Request a car on weekly basis $60
        5.Return a Car
        6.Exit

Enter your choice:  1

we have 100 cars are available for rent

        ====================Card Rental Shop-============
        1.Display Available Cars
        2.Request a car on hourly basis $5
        3.Request a car on daily basis $20
        4.Request a car on weekly basis $60
        5.Return a Car
        6.Exit

Enter your choice:  5
```

```
Rent Fee Amount 0
Thanks for reaching us

        ====================Card Rental Shop-============
        1.Display Available Cars
        2.Request a car on hourly basis $5
        3.Request a car on daily basis $20
        4.Request a car on weekly basis $60
        5.Return a Car
        6.Exit

Enter your choice:  6
```

[ ]: