**GARAGE MANAGEMENT SYSTEM**

**CODING:**

class Vehicle:

def \_\_init\_\_(self, number, owner, service\_type):

self.number = number

self.owner = owner

self.service\_type = service\_type

self.cost = self.calculate\_cost()

def calculate\_cost(self):

service\_prices = {

"oil change": 1500,

"full service": 5000,

"tyre replacement": 8000,

"brake check": 2000

}

return service\_prices.get(self.service\_type.lower(), 1000) # default cost

def \_\_str\_\_(self):

return f"Vehicle No: {self.number}, Owner: {self.owner}, Service: {self.service\_type}, Cost: ₹{self.cost}"

class Garage:

def \_\_init\_\_(self):

self.vehicles = []

def add\_vehicle(self, number, owner, service\_type):

vehicle = Vehicle(number, owner, service\_type)

self.vehicles.append(vehicle)

print("\n Vehicle added successfully!")

def show\_all\_vehicles(self):

if not self.vehicles:

print("\nNo vehicles in the garage.")

else:

print("\n--- Vehicle Records ---")

for v in self.vehicles:

print(v)

def generate\_bill(self, number):

for v in self.vehicles:

if v.number == number:

print("\n--- Bill ---")

print(v)

print("Payment Done")

return

print("\n Vehicle not found!")

def main():

garage = Garage()

while True:

print("\n====== Garage Management System ======")

print("1. Add Vehicle")

print("2. Show All Vehicles")

print("3. Generate Bill")

print("4. Exit")

choice = input("Enter your choice: ")

if choice == "1":

num = input("Enter vehicle number: ")

owner = input("Enter owner name: ")

service = input("Enter service type (oil change/full service/tyre replacement/brake check): ")

garage.add\_vehicle(num, owner, service)

elif choice == "2":

garage.show\_all\_vehicles()

elif choice == "3":

num = input("Enter vehicle number to generate bill: ")

garage.generate\_bill(num)

elif choice == "4":

print(" Exiting Garage System. Goodbye!")

break

else:

print(" Invalid choice! Try again.")

if \_\_name\_\_ == "\_\_main\_\_":

main()

**OUTPUT:**

====== Garage Management System ======

1. Add Vehicle

2. Show All Vehicles

3. Generate Bill

4. Exit

Enter your choice: 1

Enter vehicle number: 32

Enter owner name: swarna priya

Enter service type (oil change/full service/tyre replacement/brake check): break check

Vehicle added successfully!

====== Garage Management System ======

1. Add Vehicle

2. Show All Vehicles

3. Generate Bill

4. Exit

Enter your choice: 2

--- Vehicle Records ---

Vehicle No: 32, Owner: swarna priya, Service: break check, Cost: ₹1000

====== Garage Management System ======

1. Add Vehicle

2. Show All Vehicles

3. Generate Bill

4. Exit

Enter your choice: 3

Enter vehicle number to generate bill: 32

--- Bill ---

Vehicle No: 32, Owner: swarna priya, Service: break check, Cost: ₹1000

Payment Done

====== Garage Management System ======

1. Add Vehicle

2. Show All Vehicles

3. Generate Bill

4. Exit

Enter your choice: 4

Exiting Garage System. Goodbye!