

```
1 import os
2 print(os.getcwd())
3
4 from CarRental import CarRental
5 from Customer import Customer
6
7 #from CarRentalApp.CarRental import CarRental
8 #from CarRentalApp.Customer import Customer
9
10
11 def display_menu(): 1usage
12     """
13     Display the main menu of the car rental system
14     """
15     print("\n===== Welcome to Car Rental System =====")
16     print("1. Display available cars")
17     print("2. Rent a car")
18     print("3. Return a car")
19     print("4. Exit")
20     return input("Enter your choice (1-4): ")
```

Run Console Output:

```
C:\Users\Viraj\AppData\Local\Programs\Python\Python313\python.exe "D:\_Personal\My Learning\SimpleLearn\Data Scientist\Programming Essentials\Project\Car Rental App\CarRentalApp\CarRentalMain.py"
Car Rental System - OOP Implementation
=====
===== Welcome to Car Rental System =====
1. Display available cars
2. Rent a car
3. Return a car
```

```
20 return input("Enter your choice (1-4): ")
21
22 def main(): 1usage
23     """
24     Main function to run the car rental program
25     """
26     print("Car Rental System - OOP Implementation")
27     print("=====")
28
29     # Create a car rental shop with 20 cars
30     shop = CarRental(20)
31
32     # Customer ID counter
33     customer_id_counter = 100
34
35     # Dictionary to keep track of customers
36     customers = {}
37
38     # Main program loop
39     while True:
```

Run Console Output:

```
4. Exit
Enter your choice (1-4): 1
We have 20 cars available to rent.
Press Enter to continue...
===== Welcome to Car Rental System =====
1. Display available cars
2. Rent a car
```

The screenshot shows an IDE window titled "Car Rental App" with a "Version control" dropdown. The "Project" view on the left shows a folder structure: "Car Rental App" containing "CarRentalApp", "CarRentalMain.py", "Customer.py", "ProjectDocumentation.txt", "Project Files", "1688639075\_problem\_statement\_online\_car\_rental\_platform.docx", and "Online Car Rental Platform.pdf". The "External Libraries" view shows "Scratches and Consoles". The "Run" view shows the execution of "CarRentalMain.py".

```
def main():  
    usage  
    choice = display_menu()  
  
    try:  
        choice = int(choice)  
  
        if choice == 1:  
            # Display available cars  
            shop.display_available_cars()  
  
        elif choice == 2:  
            # Rent a car  
            customer_id = customer_id_counter  
            customer_id_counter += 1  
  
            # Create a new customer  
            customer = Customer(customer_id)  
            customers[customer_id] = customer
```

Run output:

```
3. Return a car  
4. Exit  
Enter your choice (1-4): 2  
Your customer ID is: 100  
Please remember this ID for returning the car.  
We have 20 cars available to rent.  
How many cars would you like to rent (1-20)? 5
```

The screenshot shows the same IDE window with updated code in "CarRentalMain.py". The "Run" view shows the execution of the updated code.

```
def main():  
    usage  
    print(f"Your customer ID is: {customer_id}")  
    print("Please remember this ID for returning the car.")  
  
    # Display available cars  
    available = shop.display_available_cars()  
    if available <= 0:  
        continue  
  
    # Get rental details  
    try:  
        num_cars = int(input(f"How many cars would you like to rent (1-{available})? "))  
  
        print("\nRental Options:")  
        print("1. Hourly rental ($50 per car per hour)")  
        print("2. Daily rental ($500 per car per day)")  
        print("3. Weekly rental ($2500 per car per week)")  
  
        rental_choice = int(input("Choose rental type (1-3): "))
```

Run output:

```
Rental Options:  
1. Hourly rental ($50 per car per hour)  
2. Daily rental ($500 per car per day)  
3. Weekly rental ($2500 per car per week)  
Choose rental type (1-3): 2  
You have rented 5 car(s) on daily basis at 2025-08-22 18:06:11  
You will be charged $500 per car per day  
We hope you enjoy our service!
```

```
def main():  
    usage  
  
    if rental_choice == 1:  
        customer.request_car(shop, num_cars, rental_type="hourly")  
    elif rental_choice == 2:  
        customer.request_car(shop, num_cars, rental_type="daily")  
    elif rental_choice == 3:  
        customer.request_car(shop, num_cars, rental_type="weekly")  
    else:  
        print("Invalid rental type choice!")  
        # Remove the customer if rental fails  
        del customers[customer_id]  
  
    except ValueError:  
        print("Please enter a valid number!")  
        # Remove the customer if rental fails  
        del customers[customer_id]  
  
    elif choice == 3:  
        # Return a car
```

Run CarRentalMain

Press Enter to continue...

==== Welcome to Car Rental System ====

1. Display available cars

2. Rent a car

3. Return a car

4. Exit

Enter your choice (1-4): 3

```
def main():  
    # Return a car  
    try:  
        customer_id = int(input("Enter your customer ID: "))  
        if customer_id in customers:  
            customer = customers[customer_id]  
            customer.return_car(shop)  
            # Remove customer after return  
            del customers[customer_id]  
        else:  
            print("Customer ID not found!")  
    except ValueError:  
        print("Please enter a valid customer ID!")  
  
    elif choice == 4:  
        # Exit the program  
        print("Thank you for using our Car Rental System. Goodbye!")  
        break  
    else:
```

Run CarRentalMain

Enter your customer ID: 100

Rental period: 1 day(s)

==== AUTO-GENERATED BILL ====

Rental start time: 2025-08-22 18:06:11

Return time: 2025-08-22 18:06:17

Number of cars rented: 5

Rental basis: daily

Total bill: \$2500

The screenshot shows an IDE window with a project named "Car Rental App". The file explorer on the left shows the project structure, including "CarRentalApp", "CarRentalMain.py", "Customer.py", "ProjectDocumentation.txt", "Project Files", "1688639075\_problem\_statement\_online\_car\_rental\_platform.docx", "Online Car Rental Platform.pdf", "External Libraries", and "Scratches and Consoles". The main editor displays the code for "CarRentalMain.py". The code defines a `main()` function that prints a welcome message, displays a menu, and prompts the user to enter a choice. It includes error handling for `ValueError` and a `break` statement. The code is as follows:

```
22 def main():
109     print("Thank you for using our Car Rental System. Goodbye!")
110     break
111
112     else:
113         print("Invalid choice! Please enter a number between 1 and 4.")
114
115 except ValueError:
116     print("Please enter a valid number!")
117
118     input("\nPress Enter to continue...")
119
120 if __name__ == "__main__":
121     main()
122
```

The Run console shows the output of the program:

```
Thank you for using our service!
=====
Press Enter to continue...
===== Welcome to Car Rental System =====
1. Display available cars
2. Rent a car
3. Return a car
```

The status bar at the bottom indicates the file is "CarRentalMain.py", the encoding is "UTF-8", the line length is "5:30", the line length is "LF", the line length is "4 spaces", and the Python version is "Python 3.13".

The screenshot shows the Run console with the following output:

```
2. Rent a car
3. Return a car
4. Exit
Enter your choice (1-4): 4
Thank you for using our Car Rental System. Goodbye!
Process finished with exit code 0
```

The status bar at the bottom indicates the file is "CarRentalMain.py", the encoding is "UTF-8", the line length is "5:30", the line length is "LF", the line length is "4 spaces", and the Python version is "Python 3.13".