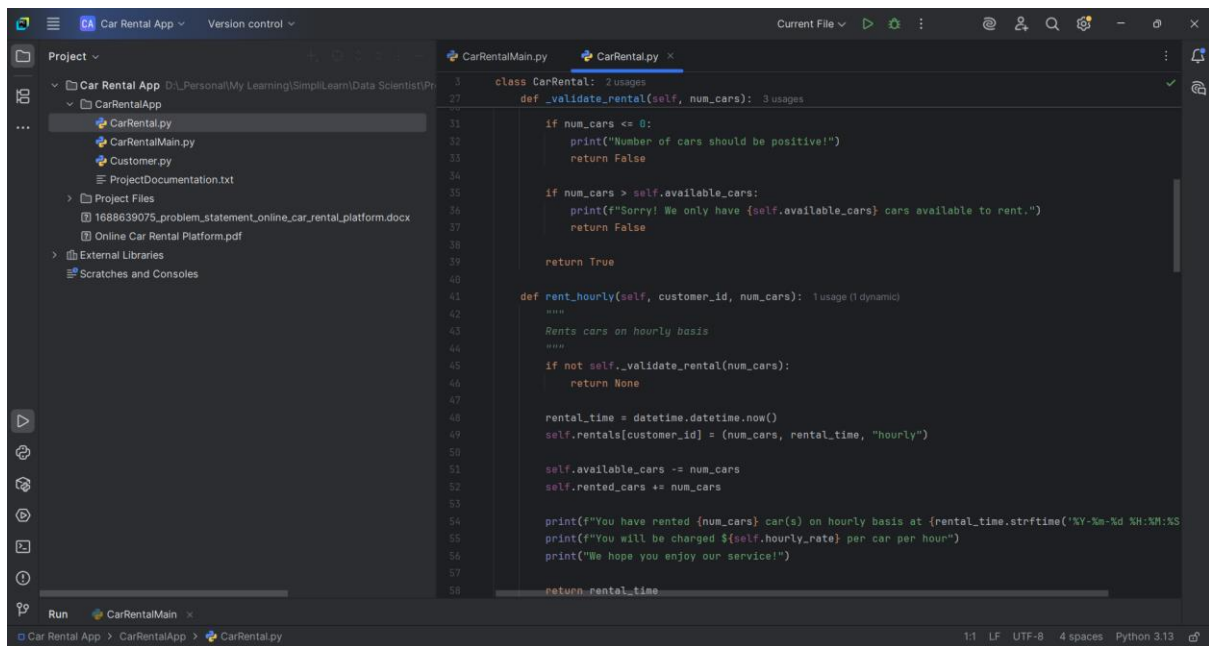


The screenshot shows an IDE window titled "Car Rental App" with a "Version control" dropdown. The left sidebar displays a project tree for "Car Rental App" located at "D:\\_Personal\My Learning\SimpleLearn\Data Scientist\Pr...". The tree includes files like "CarRental.py", "CarRentalMain.py", "Customer.py", "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 area shows the "CarRental.py" file with the following code:

```
1 import datetime
2
3 class CarRental: 2 usages
4     def __init__(self, total_cars=20):
5         """
6         Constructor for initializing the car rental shop
7         """
8         self.available_cars = total_cars
9         self.rented_cars = 0
10
11         # Dictionary to store rentals with customer ID as key
12         # Value is a tuple (number_of_cars, rental_time, rental_type)
13         self.rentals = {}
14
15         # Rental rates
16         self.hourly_rate = 50 # $50 per car per hour
17         self.daily_rate = 500 # $500 per car per day
18         self.weekly_rate = 2500 # $2500 per car per week
19
20     def display_available_cars(self): 2 usages
21         """
22         Displays the number of available cars
23         """
24         print(f"We have {self.available_cars} cars available to rent.")
25         return self.available_cars
26
27     def _validate_rental(self, num_cars): 3 usages
28         """
29         Helper method to validate rental conditions
30         """
```



The screenshot shows the same IDE window, but now the "CarRentalMain.py" file is open in the main editor area. The "CarRental.py" file is still visible in the background. The "CarRentalMain.py" file contains the following code:

```
3 class CarRental: 2 usages
27 def _validate_rental(self, num_cars): 3 usages
28     """
29     """
30
31     if num_cars <= 0:
32         print("Number of cars should be positive!")
33         return False
34
35     if num_cars > self.available_cars:
36         print(f"Sorry! We only have {self.available_cars} cars available to rent.")
37         return False
38
39     return True
40
41 def rent_hourly(self, customer_id, num_cars): 1 usage (1 dynamic)
42     """
43     Rents cars on hourly basis
44     """
45     if not self._validate_rental(num_cars):
46         return None
47
48     rental_time = datetime.datetime.now()
49     self.rentals[customer_id] = (num_cars, rental_time, "hourly")
50
51     self.available_cars -= num_cars
52     self.rented_cars += num_cars
53
54     print(f"You have rented {num_cars} car(s) on hourly basis at {rental_time.strftime('%Y-%m-%d %H:%M:%S')}")
55     print(f"You will be charged ${self.hourly_rate} per car per hour")
56     print("We hope you enjoy our service!")
57
58     return rental_time
```

The status bar at the bottom indicates the file path "Car Rental App > CarRentalApp > CarRental.py", the line and column "1:1", the encoding "LF", the character set "UTF-8", the indentation "4 spaces", and the interpreter "Python 3.13".

The screenshot shows an IDE window titled "Car Rental App" with a "Version control" dropdown. The project explorer on the left shows a folder "Car Rental App" containing files: "CarRental.py", "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 "CarRental.py" file with the following code:

```
3 class CarRental: 2 usages
59
60
61 def rent_daily(self, customer_id, num_cars): 1 usage (1 dynamic)
62     """
63     Rents cars on daily basis
64     """
65     if not self._validate_rental(num_cars):
66         return None
67
68     rental_time = datetime.datetime.now()
69     self.rentals[customer_id] = (num_cars, rental_time, "daily")
70
71     self.available_cars -= num_cars
72     self.rented_cars += num_cars
73
74     print(f"You have rented {num_cars} car(s) on daily basis at {rental_time.strftime('%Y-%m-%d %H:%M:%S')}")
75     print(f"You will be charged ${self.daily_rate} per car per day")
76     print("We hope you enjoy our service!")
77
78     return rental_time
79
80 def rent_weekly(self, customer_id, num_cars): 1 usage (1 dynamic)
81     """
82     Rents cars on weekly basis
83     """
84     if not self._validate_rental(num_cars):
85         return None
86
87     rental_time = datetime.datetime.now()
88     self.rentals[customer_id] = (num_cars, rental_time, "weekly")
89
```

The status bar at the bottom indicates "1:1 LF UTF-8 4 spaces Python 3.13".

The screenshot shows the same IDE window, but the main editor displays the "CarRental.py" file with the following code:

```
88
89 self.available_cars -= num_cars
90 self.rented_cars += num_cars
91
92 print(f"You have rented {num_cars} car(s) on weekly basis at {rental_time.strftime('%Y-%m-%d %H:%M:%S')}")
93 print(f"You will be charged ${self.weekly_rate} per car per week")
94 print("We hope you enjoy our service!")
95
96 return rental_time
97
98 def return_car(self, customer_id): 2 usages (2 dynamic)
99     """
100     Return rented cars and calculate the bill
101     """
102     if customer_id not in self.rentals:
103         print("Error: Customer ID not found in rentals.")
104         return None
105
106     num_cars, rental_time, rental_type = self.rentals[customer_id]
107
108     # Calculate the rental period
109     return_time = datetime.datetime.now()
110     rental_period = return_time - rental_time
111
112     # Calculate the bill based on rental type
113     bill = 0
114
115     if rental_type == "hourly":
116         # Calculate the bill based on hourly rate
117         bill = num_cars * rental_period * self.hourly_rate
118     elif rental_type == "daily":
119         # Calculate the bill based on daily rate
120         bill = num_cars * rental_period * self.daily_rate
121     elif rental_type == "weekly":
122         # Calculate the bill based on weekly rate
123         bill = num_cars * rental_period * self.weekly_rate
124
```

The status bar at the bottom indicates "1:1 LF UTF-8 4 spaces Python 3.13".

The screenshot shows an IDE window titled "Car Rental App" with a "Version control" dropdown. The left sidebar displays a project tree for "Car Rental App" located at "D:\\_Personal\My Learning\SimpleLearn\Data Scientist\Python\Car Rental App". The tree includes files like "CarRental.py", "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 area shows the "CarRental.py" file with the following code:

```
3 class CarRental: 2 usages
98     def return_car(self, customer_id): 2 usages (2 dynamic)
115         if rental_type == "hourly":
116             # Calculate hours, rounding up partial hours
117             hours = rental_period.seconds / 3600
118             if rental_period.seconds % 3600 != 0:
119                 hours += 1
120             hours = int(hours)
121             bill = hours * self.hourly_rate * num_cars
122             print(f"Rental period: {hours} hour(s)")
123
124         elif rental_type == "daily":
125             # Calculate days, rounding up partial days
126             days = rental_period.days
127             if rental_period.seconds > 0:
128                 days += 1
129             bill = days * self.daily_rate * num_cars
130             print(f"Rental period: {days} day(s)")
131
132         elif rental_type == "weekly":
133             # Calculate weeks, rounding up partial weeks
134             weeks = rental_period.days // 7
135             if rental_period.days % 7 != 0:
136                 weeks += 1
137             bill = weeks * self.weekly_rate * num_cars
138             print(f"Rental period: {weeks} week(s)")
139
140         # Update inventory
141         self.available_cars += num_cars
142         self.rented_cars -= num_cars
143
```

The bottom status bar indicates "1:1 LF UTF-8 4 spaces Python 3.13".

The screenshot shows the same IDE window, but the code in "CarRental.py" is now at lines 135-157:

```
135         if rental_period.days % 7 != 0:
136             weeks += 1
137         bill = weeks * self.weekly_rate * num_cars
138         print(f"Rental period: {weeks} week(s)")
139
140         # Update inventory
141         self.available_cars += num_cars
142         self.rented_cars -= num_cars
143
144         # Remove rental from records
145         del self.rentals[customer_id]
146
147         # Generate and print the bill
148         print("\n==== AUTO-GENERATED BILL =====")
149         print(f"Rental start time: {rental_time.strftime('%Y-%m-%d %H:%M:%S')}")
150         print(f"Return time: {return_time.strftime('%Y-%m-%d %H:%M:%S')}")
151         print(f"Number of cars rented: {num_cars}")
152         print(f"Rental basis: {rental_type}")
153         print(f"Total bill: ${bill}")
154         print("Thank you for using our service!")
155         print("=====")
156
157         return bill
```

The bottom status bar remains "1:1 LF UTF-8 4 spaces Python 3.13".