Case Study Output- CAR RENTAL SYSTEM

```
C:\Users\ilakkya\OneDrive\Documents\Hexaware Case study- CRS>python -m main_module.main
Trying to connect to: LAPTOP-00CBJDOA, Database: CarRental, Port: 1433
Connection String: DRIVER={ODBC Driver 17 for SQL Server};SERVER=LAPTOP-00CBJDOA;DATABASE=CarRental;Trusted_Connection=yes
Connection established successfully.

Car Rental System Menu:
1. Add Customer
2. Update Customer
3. Get Customer Info
4. Add Car
5. Update Car Availability
6. Get Car Info
7. Create Lease
8. Calculate Lease Cost
9. Record Payment
10. Get Payment History
11. Calculate Total Revenue
12. Exit
```

Output 1- Car Rental System Menu

```
Car Rental System Menu:
1. Add Customer
2. Update Customer
3. Get Customer Info
4. Add Car
5. Update Car Availability
6. Get Car Info
7. Create Lease
8. Calculate Lease Cost
9. Record Payment
10. Get Payment History
11. Calculate Total Revenue
12. Exit
Enter your choice (1-12): 1
Enter first name: Nithya
Enter last name: Devan
Enter email: nithyadev@gmail.com
Enter phone number: 9940881207
Customer added successfully.
```

Output 2- Add a Customer

```
Car Rental System Menu:
1. Add Customer
2. Update Customer
3. Get Customer Info
4. Add Car
5. Update Car Availability
6. Get Car Info
7. Create Lease
8. Calculate Lease Cost
9. Record Payment
10. Get Payment History
11. Calculate Total Revenue
12. Exit
Enter your choice (1-12): 2
Enter customer ID to update: 103
Enter new first name: Anisha
Enter new last name: Raj
Enter new email: anisha@gmail.com
Enter new phone number: 9182736450
Customer updated successfully.
```

Output 3- Update Customer

```
Car Rental System Menu:
1. Add Customer
2. Update Customer
3. Get Customer Info
4. Add Car
5. Update Car Availability
6. Get Car Info
7. Create Lease
8. Calculate Lease Cost
9. Record Payment
10. Get Payment History
11. Calculate Total Revenue
12. Exit
Enter your choice (1-12): 3
Enter customer ID: 100
Customer Name: Ravi Varma
Email: ravivarma@gmail.com
Phone: 8882345678
Customer Info - Name: Ravi Varma, Email: ravivarma@gmail.com, Phone: 8882345678
```

Output 4- Get Customer info

```
Car Rental System Menu:
1. Add Customer
2. Update Customer
3. Get Customer Info
4. Add Car
5. Update Car Availability
6. Get Car Info
7. Create Lease
8. Calculate Lease Cost
9. Record Payment
10. Get Payment History
11. Calculate Total Revenue
12. Exit
Enter your choice (1-12): 4
Enter car make: Mercedes
Enter car model: Benz
Enter car year: 2025
Enter daily rate: 30000.00
Enter status (available/notAvailable): available
Enter passenger capacity: 5
Enter engine capacity: 2.00
Car added successfully.
```

Output 5- Add Car

```
Car Rental System Menu:
1. Add Customer
2. Update Customer
3. Get Customer Info
4. Add Car
5. Update Car Availability
6. Get Car Info
7. Create Lease
8. Calculate Lease Cost
9. Record Payment
10. Get Payment History
11. Calculate Total Revenue
12. Exit
Enter your choice (1-12): 5
Enter vehicle ID: 7
Enter availability status (True/False): True
Car availability updated.
```

Output 6- Update Car Availability

```
Car Rental System Menu:
1. Add Customer
2. Update Customer
3. Get Customer Info
4. Add Car
5. Update Car Availability
6. Get Car Info
7. Create Lease
8. Calculate Lease Cost
9. Record Payment
10. Get Payment History
11. Calculate Total Revenue
12. Exit
Enter your choice (1-12): 6
Enter vehicle ID: 10
Car Info - Make: Volkswagen, Model: Tiguan, Year: 2022
```

Output 7- Get car info

```
Car Rental System Menu:
1. Add Customer
2. Update Customer
3. Get Customer Info
4. Add Car
5. Update Car Availability
6. Get Car Info
7. Create Lease
8. Calculate Lease Cost
9. Record Payment
10. Get Payment History
11. Calculate Total Revenue
12. Exit
Enter your choice (1-12): 7
Enter customer ID: 100
Enter vehicle ID: 7
Enter lease start date (YYYY-MM-DD): 2025-09-01
Enter lease end date (YYYY-MM-DD): 2025-12-12
Enter lease type (DailyLease/MonthlyLease): MonthlyLease
Attempting to create lease for vehicle ID 7...
Checking if vehicleID 7 exists in the Vehicle table.
Lease created for vehicleID 7.
Lease created successfully.
```

Output 8- Creating Lease

```
Car Rental System Menu:
1. Add Customer
2. Update Customer
3. Get Customer Info
4. Add Car
5. Update Car Availability
6. Get Car Info
7. Create Lease
8. Calculate Lease Cost
9. Record Payment
10. Get Payment History
11. Calculate Total Revenue
12. Exit
Enter your choice (1-12): 8
Enter lease ID: 300
Total lease cost: 15000.00
```

Output 9- Calculate Lease Cost

```
Car Rental System Menu:
1. Add Customer
2. Update Customer
3. Get Customer Info
4. Add Car
5. Update Car Availability
6. Get Car Info
7. Create Lease
8. Calculate Lease Cost
9. Record Payment
10. Get Payment History
11. Calculate Total Revenue
12. Exit
Enter your choice (1-12): 9
Enter lease ID: 303
Enter payment amount: 17500
Enter payment date (YYYY-MM-DD): 2023-05-10
Payment recorded successfully.
```

Output 10- Record Payment

```
Car Rental System Menu:
1. Add Customer
2. Update Customer
3. Get Customer Info
4. Add Car
5. Update Car Availability
6. Get Car Info
7. Create Lease
8. Calculate Lease Cost
9. Record Payment
10. Get Payment History
11. Calculate Total Revenue
12. Exit
Enter your choice (1-12): 10
Enter customer ID: 108
Payment History:
Lease ID: 1008, Amount: 308, Date: 2023-10-01
```

Output 11- Get Payment History

```
Car Rental System Menu:
1. Add Customer
2. Update Customer
3. Get Customer Info
4. Add Car
5. Update Car Availability
6. Get Car Info
7. Create Lease
8. Calculate Lease Cost
9. Record Payment
10. Get Payment History
11. Calculate Total Revenue
12. Exit
Enter your choice (1-12): 11
Total Revenue: 173400.50
```

Output 12- Calculate Total Revenue

```
Car Rental System Menu:
1. Add Customer
2. Update Customer
3. Get Customer Info
4. Add Car
5. Update Car Availability
6. Get Car Info
7. Create Lease
8. Calculate Lease Cost
9. Record Payment
10. Get Payment History
11. Calculate Total Revenue
12. Exit
Enter your choice (1-12): 12
Exiting the system.
```

Output 13- Exit

Testing Output using unit testing

```
C:\Users\ilakkya>cd "C:\Users\ilakkya\OneDrive\Documents\Hexaware Case study- CRS"

C:\Users\ilakkya\OneDrive\Documents\Hexaware Case study- CRS>pytest test/test_car_rental_system.py
============================================= test session starts =============================================
platform win32 -- Python 3.12.4, pytest-8.3.5, pluggy-1.5.0
rootdir: C:\Users\ilakkya\OneDrive\Documents\Hexaware Case study- CRS
plugins: mock-3.14.0
collected 7 items

test\test_car_rental_system.py .......                                                              [100%]

============================================== 7 passed in 0.19s ==============================================

C:\Users\ilakkya\OneDrive\Documents\Hexaware Case study- CRS>
```