The program declares in the main function that we have only 3 mechanics (the assignment statement says it is okay to pre-declare the mechanics in the main, not from the user).

The first screenshot is when there is only 2 customer.

```
Microsoft Visual Studio Debug Console
How many customers are there?
Customer Number 1 Please enter your name, ID, and age. Name: Zyad
ID: 1
Age: 25
Welcome to the mechanic shop!! Zyad! choose your appointment time
hour is: 12
minutes is: 30
your chosen appointment time is 12:30
Customer Number 2 Please enter your name, ID, and age. Name: Belal
TD: 2
Age: 36
Welcome to the mechanic shop!! Belal! choose your appointment time
hour is: 5
minutes is: 30
your chosen appointment time is 5:30
Registeration done for Belal
Your mechanic info: Name: Ahmed Fikry
Age: 19
ID: 324
Appointment is at: 5:30
Registeration done for Zyad
Your mechanic info: Name: Noor Hassan
Age: 20
ID: 11
Appointment is at: 12:30
A:\Development\C++ - CS 2\Assignment 2\x64\Debug\Assignment 2.exe (process 24752) exited with code 0.
Press any key to close this window . . .
```

Throughout the program, I take the number and date of customers from the user and then the program does the rest of distributing the customers on the available 3 mechanics perfectly as the assignment requires. When there are 2 customers, they get matched with the first 2 mechanics, they are printed based on the earlier the first printed, and the customers' mechanic name, ID, and age are printed as well.

```
Microsoft Visual Studio Debug Console
How many customers are there?
Customer Number 1 Please enter your name, ID, and age. Name: Zyad
ID: 1
Age: 24
Welcome to the mechanic shop!! Zyad! choose your appointment time
hour is: 12
minutes is: 30
your chosen appointment time is 12:30
Customer Number 2 Please enter your name, ID, and age. Name: Dina
ID: 2
Age: 33
Welcome to the mechanic shop!! Dina! choose your appointment time
hour is: 9
minutes is: 30
your chosen appointment time is 9:30
Customer Number 3 Please enter your name, ID, and age. Name: Fady
ID: 7
Age: 30
Welcome to the mechanic shop!! Fady! choose your appointment time
hour is: 7
minutes is: 30
your chosen appointment time is 7:30
Customer Number 4 Please enter your name, ID, and age. Name: Malak
ID: 5
Age: 23
Welcome to the mechanic shop!! Malak! choose your appointment time
hour is: 22
minutes is: 10
your chosen appointment time is 22:10
Registeration done for Fady
Your mechanic info: Name: Ahmed Fikry
Age: 19
ID: 324
```











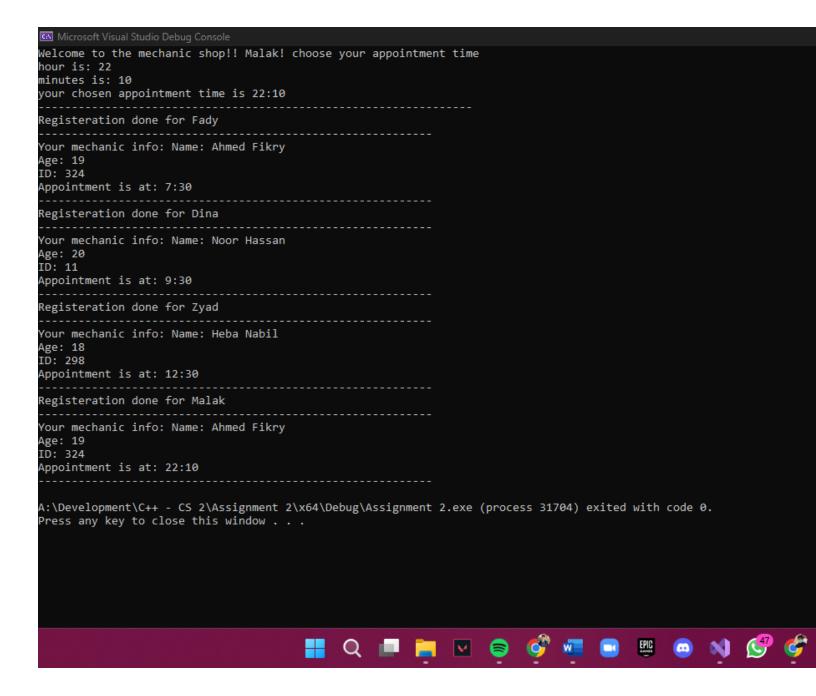






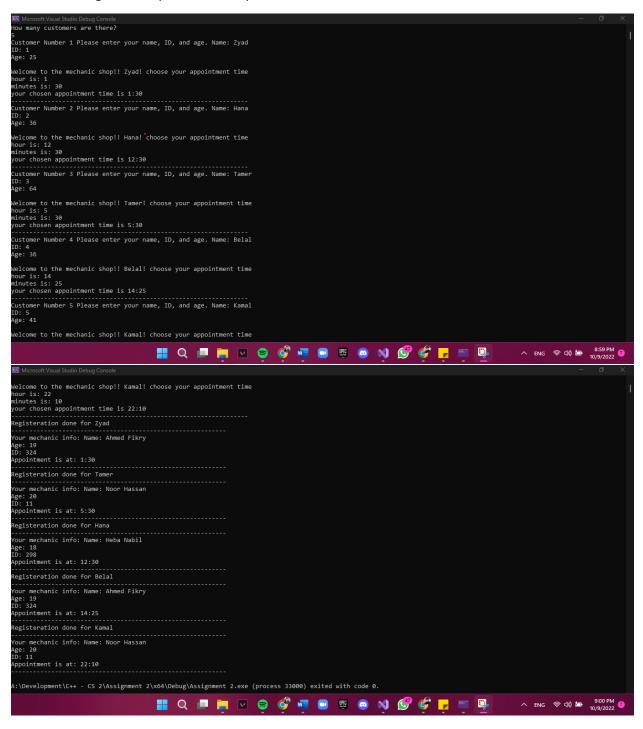






As shown in the two screenshots, the first three customers are matched with the first three mechanics and ordered the earlier the first printed. The fourth customer is matched with the first mechanic again as required in the assignment document. The four customers are printed as required. Earliest first assuming the 24-hour system the earliest is 00:00 and the latest is 23:59:59.

The same thing with the previous example but with 5 customers for further demonstration



Finally, when 4 customers want the same appointment, the first three get with the three mechanics, and the final customer gets a message that there are no mechanics available currently and the program ends.

