Assignment (2)

Report

```
Microsoft Visual Studio Debug Console
Enter the number of mechanics: 3
Enter the mechanic's name: Ayman
Enter the mechanic's name: Khaled
Enter the mechanic's name: Mai
Enter number of customers: 4
Enter the customer's name: Ahmed
Enter the time desired for Ahmed
Hours: 1
Minutes: 0
Enter the customer's name: Sara
Enter the time desired for Sara
Hours: 4
Minutes: 0
Enter the customer's name: Kareem
Enter the time desired for Kareem
Hours: 3
Minutes: 0
Enter the customer's name: Mohammed
Enter the time desired for Mohammed
Hours: 1
Minutes: 0
Appointment scheduled with Khaled
Mr/s. Ahmed should be assigned to Ayman at 1:0
---------------------------------------------------------------
Mr/s. Sara should be assigned to Khaled at 4:0
---------------------------------------------------------------
Mr/s. Kareem should be assigned to Mai at 3:0
---------------------------------------------------------------
Mr/s. Mohammed should be assigned to Khaled at 1:0
---------------------------------------------------------------

Queue:
Ahmed should be assigned to Ayman at 1:0
---------------------------------------------------------------
Mohammed should be assigned to Khaled at 1:0
---------------------------------------------------------------
Kareem should be assigned to Mai at 3:0
---------------------------------------------------------------
Sara should be assigned to Khaled at 4:0
---------------------------------------------------------------
```

I make 2 arrays, a mechanic array, and a customer array.

I ask for the number of mechanics at first and then I fill in their names.

Then I ask for the number of customers then fill in their names and desired timings.

I then proceed to match them with a mechanic that is available at their required time.

Then I sort the array of customers according to their desired time and then push them in my queue. The queue is a simple dynamic array with pointers. One pointing at the very first element and is incremented every time I use pop function and the other pointer is pointing at the first

empty cell in the back of the array and is incriminated every time I use push function. I also have an a getfront() function that returns the element at the very front so I can cout this element.

Lastly, I did not use any print functions of either classes but I only overridden them as the function print was declared as virtual and pure in the parent class. So I only override it so that I could instantiate objects of those classes.