## Hospital System

- Implement the following system for a hospital
- There are 20 different specialization (e.g.Children,Surgery,etc)
- For each specialization, there are only 5 available spots [queue]
- Adding a patient
  - Read the requested specialization[1-20].
  - Read his name and status(0=regular,1urgent)
  - o If 5 patients exist, apologize and don't accept.
  - o If the user is regular, add in end of queue. Otherwise, add in Begin
- Print patients, for the specializations that have waiting patients
- Dr pickup a patient
  - Read the requested specialization .If no patients ,in form the doctor
  - Otherwise, ask the patient to go with the Dr.Remove from the queue

```
Enter your choice:
1) Add new patient
2) Print all patients
3) Get next patient
4) Fxit
Enter specialization, name, statis: 15 mostafa 0
Enter your choice:
1) Add new patient
2) Print all patients
```

4) Exit

Enter specialization, name, statis: 15 asmaa 0 Enter your choice:

1) Add new patient 2) Print all patients 3) Get next patient

3) Get next patient

4) Exit

Enter specialization, name, statis: 15 belal 1

Enter your choice: 1) Add new patient

2) Print all patients 3) Get next patient 4) Exit

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* There are 3 patients in specialization 15 belal urgent

mostafa regular asmaa regular

Enter your choice: 1) Add new patient 2) Print all patients

3) Get next patient 4) Exit Enter specialization, name, statis: 15 ziad 1

Enter your choice: 1) Add new patient

2) Print all patients 3) Get next patient

There are 4 patients in specialization 15

ziad urgent

belal urgent mostafa regular asmaa regular

4) Fxit

```
Enter your choice:
                                                                       Enter your choice:
1) Add new patient
                                                                       1) Add new patient
2) Print all patients
                                                                       2) Print all patients
3) Get next patient
                                                                       3) Get next patient
4) Exit
                                                                       4) Exit
Enter specialization, name, statis: 15 safaa 0
                                                                       Enter specialization: 10
                                                                       No patients at the moment, Have rest, Dr
Enter your choice:
1) Add new patient
                                                                       Enter your choice:
2) Print all patients
                                                                       1) Add new patient
                                                                       2) Print all patients
3) Get next patient
                                                                       3) Get next patient
4) Exit
                                                                       4) Exit
Enter specialization, name, statis: 15 ashraf 0
                                                                       Enter specialization: 15
Sorry we can't add more patients for this specialization
                                                                       ziad please go with the Dr
Enter your choice:
                                                                       Enter your choice:
1) Add new patient
                                                                       1) Add new patient
2) Print all patients
                                                                       2) Print all patients
3) Get next patient
                                                                       3) Get next patient
4) Fxit
                                                                       4) Exit
                                                                       ********
There are 5 patients in specialization 15
                                                                       There are 4 patients in specialization 15
ziad urgent
                                                                       belal urgent
belal urgent
                                                                       mostafa regular
mostafa regular
                                                                       asmaa regular
asmaa regular
```

safaa regular

safaa regular

```
1) Add new patient
1) Add new patient
                                                            2) Print all patients
2) Print all patients
                                                            3) Get next patient
3) Get next patient
                                                            4) Exit
4) Exit
                                                            Enter specialization, name, statis: 15 amal 1
Enter specialization, name, statis: 7 soha 1
                                                            Enter your choice:
Enter your choice:
                                                            1) Add new patient
1) Add new patient
                                                            2) Print all patients
2) Print all patients
                                                            3) Get next patient
3) Get next patient
                                                            4) Exit
4) Fxit
                                                            Enter specialization: 7
                                                            soha please go with the Dr
There are 1 patients in specialization 7
soha urgent
                                                            Enter your choice:
                                                            1) Add new patient
There are 4 patients in specialization 15
                                                            2) Print all patients
belal urgent
                                                            3) Get next patient
mostafa regular
```

Enter your choice:

asmaa regular safaa regular

4) Exit

Enter your choice:

1) Add new patient

3) Get next patient

2) Print all patients

Enter your choice:

4) Exit

amal urgent

belal urgent

asmaa regular

safaa regular

mostafa regular

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There are 5 patients in specialization 15