

## 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,1 urgent)
  - If 5 patients exist,apologize and don't accept.
  - 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

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

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

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

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Enter your choice:
1) Add new patient
2) Print all patients
3) Get next patient
4) Exit
2
*****
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
1
Enter specialization, name, statis: 15 ziad 1

Enter your choice:
1) Add new patient
2) Print all patients
3) Get next patient
4) Exit
2
*****
There are 4 patients in specialization 15
ziad urgent
belal urgent
mostafa regular
asmaa regular
```

Enter your choice:

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

1

Enter specialization, name, statis: 15 safaa 0

Enter your choice:

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

1

Enter specialization, name, statis: 15 ashraf 0

Sorry we can't add more patients for this specialization

Enter your choice:

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

2

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There are 5 patients in specialization 15

ziad urgent

belal urgent

mostafa regular

asmaa regular

safaa regular

Enter your choice:

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

3

Enter specialization: 10

No patients at the moment. Have rest, Dr

Enter your choice:

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

3

Enter specialization: 15

ziad please go with the Dr

Enter your choice:

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

2

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There are 4 patients in specialization 15

belal urgent

mostafa regular

asmaa regular

safaa regular

Enter your choice:

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

1

Enter specialization, name, statis: 7 soha 1

Enter your choice:

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

2|

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There are 1 patients in specialization 7  
soha urgent

There are 4 patients in specialization 15  
belal urgent  
mostafa regular  
asmaa regular  
safaa regular

Enter your choice:

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

Enter your choice:

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

1

Enter specialization, name, statis: 15 amal 1

Enter your choice:

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

3

Enter specialization: 7  
soha please go with the Dr

Enter your choice:

- 1) Add new patient
- 2) Print all patients
- 3) Get next patient
- 4) Exit|

2

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There are 5 patients in specialization 15  
amal urgent  
belal urgent  
mostafa regular  
asmaa regular  
safaa regular

