

*C++ Programming*  
Hospital System **Project**

# 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, inform the doctor
  - Otherwise, ask the patient to go with the Dr. Remove from the queue

# Hospital System

```
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
```

```
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
```

# Hospital System

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

\*\*\*\*\*

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

\*\*\*\*\*

There are 4 patients in specialization 15

belal urgent  
mostafa regular  
asmaa regular  
safaa regular

# Hospital System

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|

\*\*\*\*\*

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

\*\*\*\*\*

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