

&RXUVH3URMHFW

# Hospital Patient Tracking Application

Rama Shobokshi - 2110856 ( Leader )

Dana Aldosaari - 2115774

Reem Alkthiry - 2115561

Dana Turki Aldossari	Rama Atif Shobokshi	Reem Alkathiri
Maintain a hospital inventory database in a file	Maintain a patient database in a file	Assign a bed to a registred patient
Add new bed to the hospital	Register/Add new patients	Make a bed available again when a patient is discharged
Delete a bed from the hospital	Search patient database	Look up bed status in database by any field
---	Print out the matching records	Print out all the matching reords

## Register / add new patients

**OnlineGDB** beta

online compiler and debugger for c/c++

code. compile. run. debug. share.

IDE

My Projects

Classroom new

Learn Programming

Programming Questions

Sign Up

Login

 156K

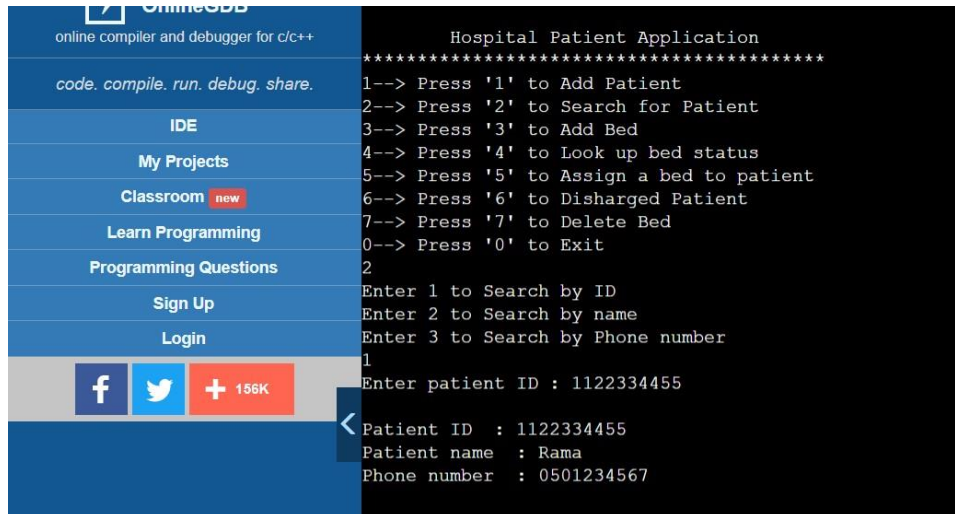
```
Hospital Patient Application
*****
1--> Press '1' to Add Patient
2--> Press '2' to Search for Patient
3--> Press '3' to Add Bed
4--> Press '4' to Look up bed status
5--> Press '5' to Assign a bed to patient
6--> Press '6' to Disharged Patient
7--> Press '7' to Delete Bed
0--> Press '0' to Exit
1
Enter Patient ID number :
1122334455
Enter Patient name :
Rama
Enter Patient phone number :
0501234567
Patient has added

0--> Press '0' to Exit
1
Enter Patient ID number :
1122334455
Enter Patient name :
Rama
Enter Patient phone number :
0501234567
Patient has added

Hospital Patient Application
*****
1--> Press '1' to Add Patient
2--> Press '2' to Search for Patient
3--> Press '3' to Add Bed
4--> Press '4' to Look up bed status
5--> Press '5' to Assign a bed to patient
6--> Press '6' to Disharged Patient
7--> Press '7' to Delete Bed
0--> Press '0' to Exit
1
Enter Patient ID number :
1234567899
Enter Patient name :
Dana
Enter Patient phone number :
0501122334
Patient has added
```

About • FAQ • Blog • Terms of Use • Contact Us •

## Search patient database by: Patient ID number



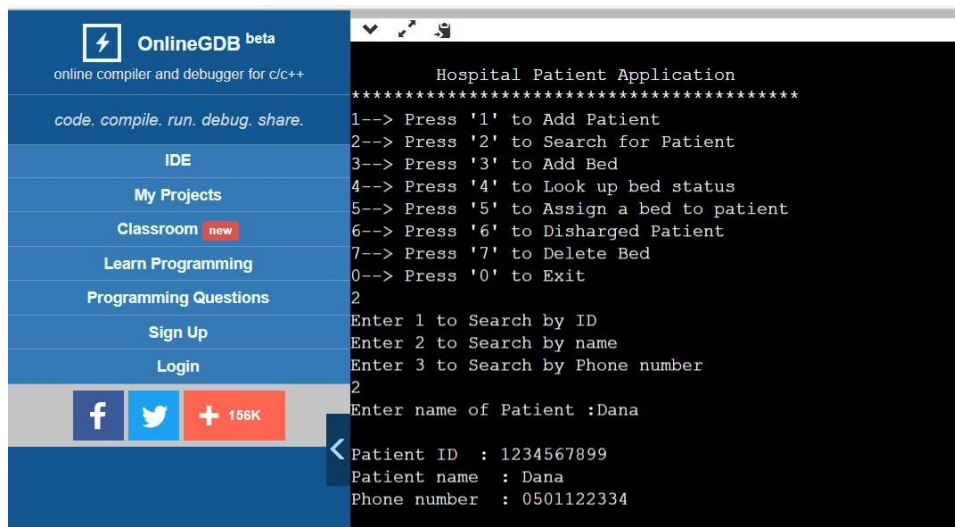
```
OnlineGDB
online compiler and debugger for c/c++
code. compile. run. debug. share.

IDE
My Projects
Classroom new
Learn Programming
Programming Questions
Sign Up
Login

f 156K

Hospital Patient Application
*****
1--> Press '1' to Add Patient
2--> Press '2' to Search for Patient
3--> Press '3' to Add Bed
4--> Press '4' to Look up bed status
5--> Press '5' to Assign a bed to patient
6--> Press '6' to Disharged Patient
7--> Press '7' to Delete Bed
0--> Press '0' to Exit
2
Enter 1 to Search by ID
Enter 2 to Search by name
Enter 3 to Search by Phone number
1
Enter patient ID : 1122334455
< Patient ID : 1122334455
Patient name : Rama
Phone number : 0501234567
```

## Search patient database by: Name



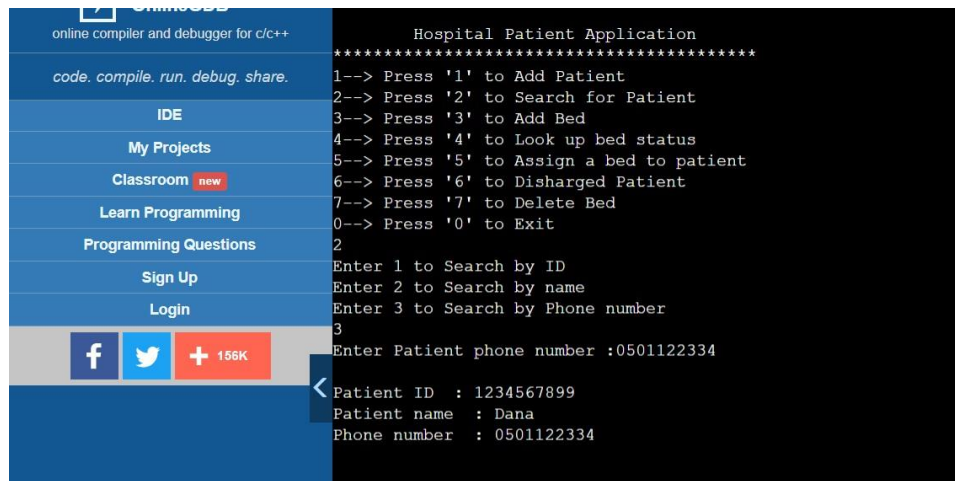
```
OnlineGDB beta
online compiler and debugger for c/c++
code. compile. run. debug. share.

IDE
My Projects
Classroom new
Learn Programming
Programming Questions
Sign Up
Login

f 156K

Hospital Patient Application
*****
1--> Press '1' to Add Patient
2--> Press '2' to Search for Patient
3--> Press '3' to Add Bed
4--> Press '4' to Look up bed status
5--> Press '5' to Assign a bed to patient
6--> Press '6' to Disharged Patient
7--> Press '7' to Delete Bed
0--> Press '0' to Exit
2
Enter 1 to Search by ID
Enter 2 to Search by name
Enter 3 to Search by Phone number
2
Enter name of Patient :Dana
< Patient ID : 1234567899
Patient name : Dana
Phone number : 0501122334
```

## Search patient database by: Phone number

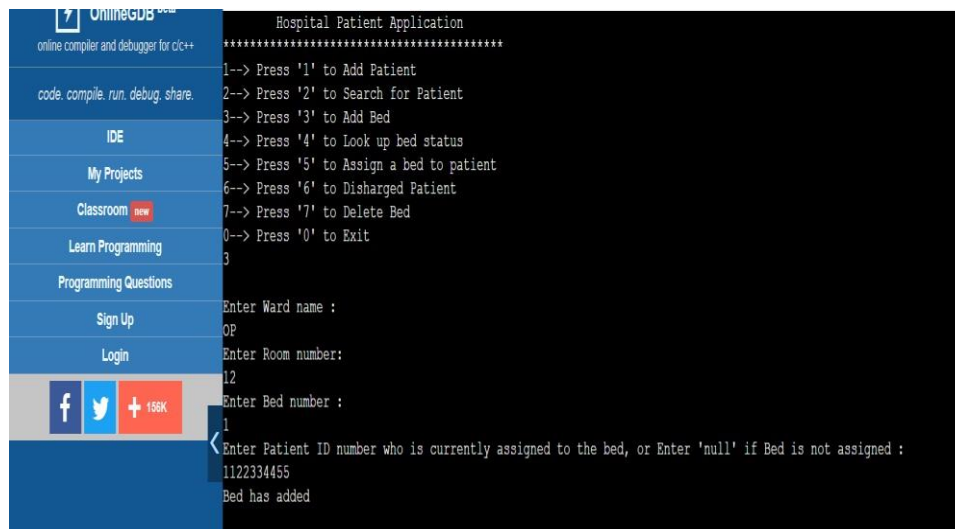


The screenshot shows the OnlineGDB IDE interface. On the left is a sidebar with navigation links: 'online compiler and debugger for c/c++', 'code. compile. run. debug. share.', 'IDE', 'My Projects', 'Classroom' (with a 'new' badge), 'Learn Programming', 'Programming Questions', 'Sign Up', and 'Login'. Below these are social media icons for Facebook, Twitter, and a '+ 156K' button. The main area displays the 'Hospital Patient Application' menu with options 1-7 and 0. Option 2 is selected, leading to a search screen where 'Enter 3 to Search by Phone number' is chosen. The search results show: Patient ID : 1234567899, Patient name : Dana, and Phone number : 0501122334.

```
OnlineGDB
online compiler and debugger for c/c++
code. compile. run. debug. share.
IDE
My Projects
Classroom new
Learn Programming
Programming Questions
Sign Up
Login
f 156K

Hospital Patient Application
*****
1--> Press '1' to Add Patient
2--> Press '2' to Search for Patient
3--> Press '3' to Add Bed
4--> Press '4' to Look up bed status
5--> Press '5' to Assign a bed to patient
6--> Press '6' to Disharged Patient
7--> Press '7' to Delete Bed
0--> Press '0' to Exit
2
Enter 1 to Search by ID
Enter 2 to Search by name
Enter 3 to Search by Phone number
3
Enter Patient phone number :0501122334
< Patient ID : 1234567899
Patient name : Dana
Phone number : 0501122334
```

## Add a new bed to the hospital

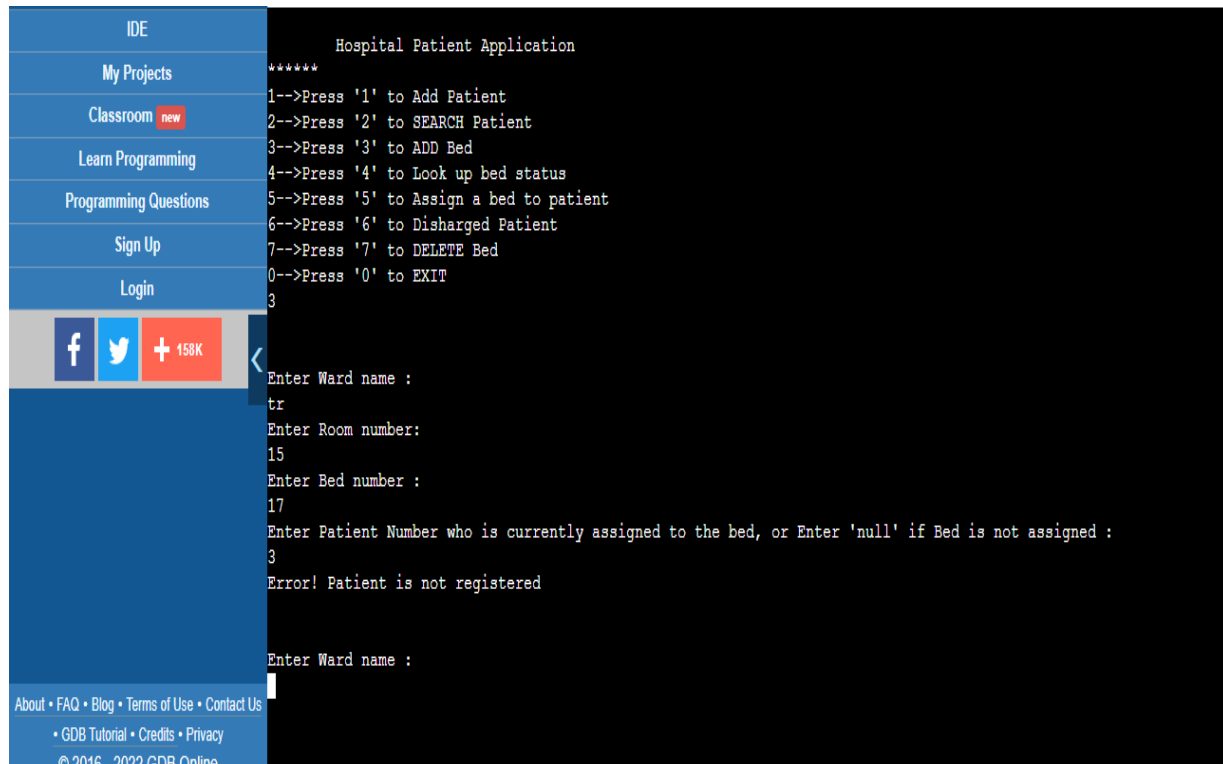


The screenshot shows the OnlineGDB IDE interface. On the left is a sidebar with navigation links: 'online compiler and debugger for c/c++', 'code. compile. run. debug. share.', 'IDE', 'My Projects', 'Classroom' (with a 'new' badge), 'Learn Programming', 'Programming Questions', 'Sign Up', and 'Login'. Below these are social media icons for Facebook, Twitter, and a '+ 156K' button. The main area displays the 'Hospital Patient Application' menu. Option 3 is selected, leading to a screen where 'Enter Bed number :' is entered as '1'. Then, 'Enter Patient ID number who is currently assigned to the bed, or Enter 'null' if Bed is not assigned :' is entered as '1122334455'. The final output is 'Bed has added'.

```
OnlineGDB
online compiler and debugger for c/c++
code. compile. run. debug. share.
IDE
My Projects
Classroom new
Learn Programming
Programming Questions
Sign Up
Login
f 156K

Hospital Patient Application
*****
1--> Press '1' to Add Patient
2--> Press '2' to Search for Patient
3--> Press '3' to Add Bed
4--> Press '4' to Look up bed status
5--> Press '5' to Assign a bed to patient
6--> Press '6' to Disharged Patient
7--> Press '7' to Delete Bed
0--> Press '0' to Exit
3
Enter Ward name :
OP
Enter Room number:
12
Enter Bed number :
1
Enter Patient ID number who is currently assigned to the bed, or Enter 'null' if Bed is not assigned :
1122334455
Bed has added
```

## When cannot add patient in a bed and the patient is not registered



```
IDE
My Projects
Classroom NEW
Learn Programming
Programming Questions
Sign Up
Login

Hospital Patient Application
*****
1-->Press '1' to Add Patient
2-->Press '2' to SEARCH Patient
3-->Press '3' to ADD Bed
4-->Press '4' to Look up bed status
5-->Press '5' to Assign a bed to patient
6-->Press '6' to Disharged Patient
7-->Press '7' to DELETE Bed
0-->Press '0' to EXIT
3

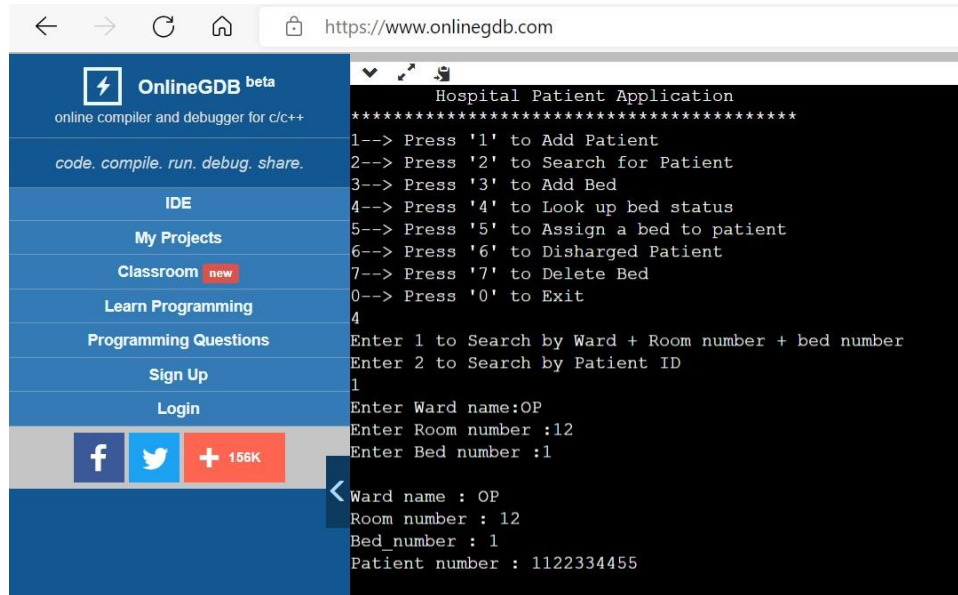
Enter Ward name :
tr
Enter Room number:
15
Enter Bed number :
17
Enter Patient Number who is currently assigned to the bed, or Enter 'null' if Bed is not assigned :
3
Error! Patient is not registered

Enter Ward name :

```

About • FAQ • Blog • Terms of Use • Contact Us  
• GDB Tutorial • Credits • Privacy  
© 2016 - 2022 GDB Online

## Look up bed status in database by any field: Ward + Room number + bed number



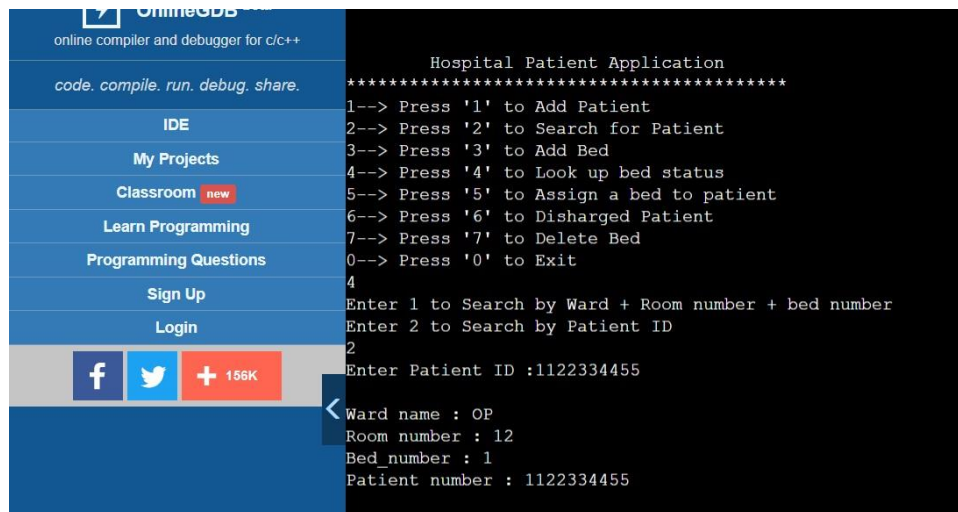
```
OnlineGDB beta
online compiler and debugger for c/c++
code. compile. run. debug. share.

IDE
My Projects
Classroom new
Learn Programming
Programming Questions
Sign Up
Login

f 156K

Hospital Patient Application
*****
1--> Press '1' to Add Patient
2--> Press '2' to Search for Patient
3--> Press '3' to Add Bed
4--> Press '4' to Look up bed status
5--> Press '5' to Assign a bed to patient
6--> Press '6' to Disharged Patient
7--> Press '7' to Delete Bed
0--> Press '0' to Exit
4
Enter 1 to Search by Ward + Room number + bed number
Enter 2 to Search by Patient ID
1
Enter Ward name:OP
Enter Room number :12
Enter Bed number :1
<
Ward name : OP
Room number : 12
Bed number : 1
Patient number : 1122334455
```

## Look up bed status in database by any field: Patient ID who is currently assigned to the bed



```
OnlineGDB beta
online compiler and debugger for c/c++
code. compile. run. debug. share.

IDE
My Projects
Classroom new
Learn Programming
Programming Questions
Sign Up
Login

f 156K

Hospital Patient Application
*****
1--> Press '1' to Add Patient
2--> Press '2' to Search for Patient
3--> Press '3' to Add Bed
4--> Press '4' to Look up bed status
5--> Press '5' to Assign a bed to patient
6--> Press '6' to Disharged Patient
7--> Press '7' to Delete Bed
0--> Press '0' to Exit
2
Enter 1 to Search by Ward + Room number + bed number
Enter 2 to Search by Patient ID
2
Enter Patient ID :1122334455
<
Ward name : OP
Room number : 12
Bed number : 1
Patient number : 1122334455
```





It appears error when we entered a wrong patient number to search by ID number

```
online compiler and debugger for c/c++
code compile run debug share
IDE
My Projects
Classroom new
Learn Programming
Programming Questions
Sign Up
Login
f
twitter
+ 158K
Hospital Patient Application
*****
1-->Press '1' to Add Patient
2-->Press '2' to SEARCH Patient
3-->Press '3' to ADD Bed
4-->Press '4' to Look up bed status
5-->Press '5' to Assign a bed to patient
6-->Press '6' to Discharged Patient
7-->Press '7' to DELETE Bed
0-->Press '0' to EXIT
4
Enter 1 to Search by Ward + Room number + bed number
Enter 2 to Search by Patient ID
2
Enter Patient ID :5
There is no record of this Bed in this system
Hospital Patient Application
*****
1-->Press '1' to Add Patient
```

When we want to assign a bed to patient we enter the wrong bed number so it will appear error incorrect number

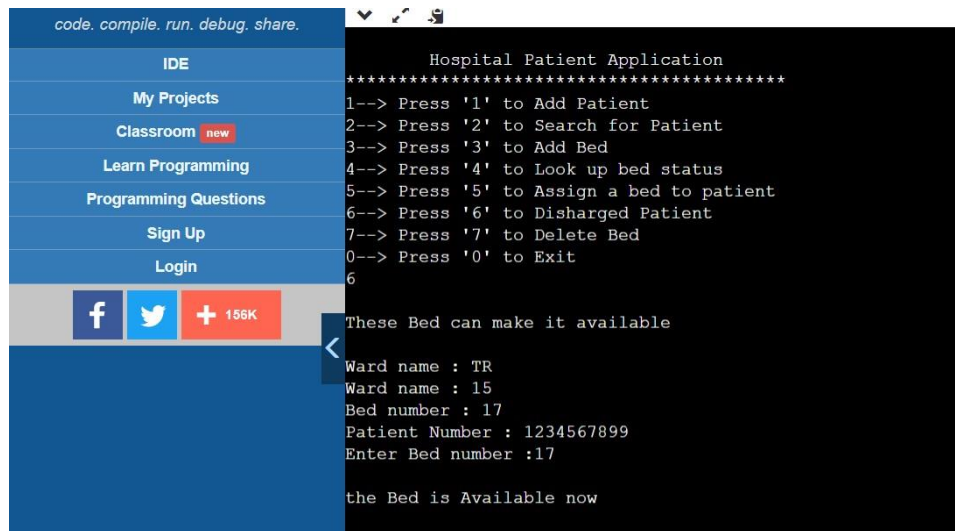
```
code compile run debug share
IDE
My Projects
Classroom new
Learn Programming
Programming Questions
Sign Up
Login
f
twitter
+ 158K
0-->Press '0' to EXIT
3
Enter Ward name :
tr
Enter Room number:
15
Enter Bed number :
17
Enter Patient Number who is currently assigned to the bed, or Enter 'null' if Bed is not assigned :
1112
Bed has added
Hospital Patient Application
*****
1-->Press '1' to Add Patient
2-->Press '2' to SEARCH Patient
3-->Press '3' to ADD Bed
4-->Press '4' to Look up bed status
5-->Press '5' to Assign a bed to patient
6-->Press '6' to Discharged Patient
7-->Press '7' to DELETE Bed
0-->Press '0' to EXIT
5
These Beds are not Registered
Enter Bed Number :6
Error a incorrect number!
Enter 0 to go back or 1 to try again:
```

Assign a bed to a registered patient we entered the right bed number

<a href="#">Learn Programming</a>	Hospital Patient Application
<a href="#">Programming Questions</a>	*****
<a href="#">Sign Up</a>	1--> Press '1' to Add Patient
<a href="#">Login</a>	2--> Press '2' to Search for Patient
   156K	3--> Press '3' to Add Bed
	4--> Press '4' to Look up bed status
	5--> Press '5' to Assign a bed to patient
	6--> Press '6' to Discharged Patient
	7--> Press '7' to Delete Bed
	0--> Press '0' to Exit
	5
	These Beds are not Registered
	Ward name : TR
	Room number : 15
	Bed number : 17
	Enter Bed Number :17
	Enter a Patient number :1234567899
<a href="#">About</a> • <a href="#">FAQ</a> • <a href="#">Blog</a> • <a href="#">Terms of Use</a> • <a href="#">Contact Us</a> •	Bed has been assigned
<a href="#">GDB Tutorial</a> • <a href="#">Credits</a> • <a href="#">Privacy</a>	
© 2016 - 2022 GDB Online	



## Make a bed available again when a patient is discharged



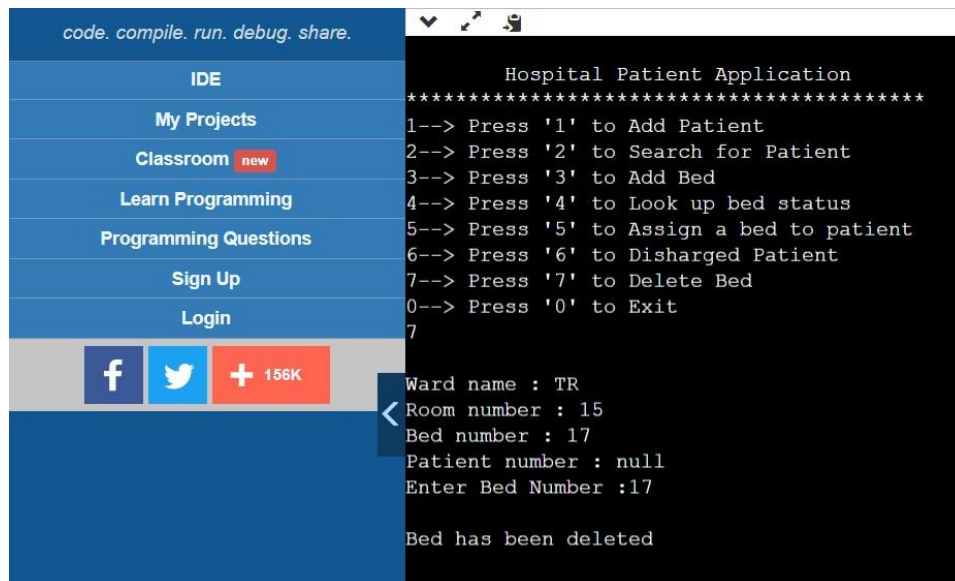
The screenshot shows a web IDE interface. On the left is a sidebar with a menu: "code. compile. run. debug. share." at the top, followed by "IDE", "My Projects", "Classroom" (with a red "new" badge), "Learn Programming", "Programming Questions", "Sign Up", and "Login". Below the menu are social media icons for Facebook, Twitter, and a "+ 156K" button. The main area is a dark terminal window titled "Hospital Patient Application" with a separator line of asterisks. It lists menu options: 1--> Press '1' to Add Patient, 2--> Press '2' to Search for Patient, 3--> Press '3' to Add Bed, 4--> Press '4' to Look up bed status, 5--> Press '5' to Assign a bed to patient, 6--> Press '6' to Disharged Patient, 7--> Press '7' to Delete Bed, and 0--> Press '0' to Exit. The terminal shows the user has entered '6'. The output displays "These Bed can make it available" followed by a left arrow, then "Ward name : TR", "Ward name : 15", "Bed number : 17", "Patient Number : 1234567899", and "Enter Bed number :17". The final output is "the Bed is Available now".

```
code. compile. run. debug. share.
IDE
My Projects
Classroom new
Learn Programming
Programming Questions
Sign Up
Login
f 156K

Hospital Patient Application
*****
1--> Press '1' to Add Patient
2--> Press '2' to Search for Patient
3--> Press '3' to Add Bed
4--> Press '4' to Look up bed status
5--> Press '5' to Assign a bed to patient
6--> Press '6' to Disharged Patient
7--> Press '7' to Delete Bed
0--> Press '0' to Exit
6
These Bed can make it available
<
Ward name : TR
Ward name : 15
Bed number : 17
Patient Number : 1234567899
Enter Bed number :17

the Bed is Available now
```

## Delete a bed from the hospital inventory



The screenshot shows the same web IDE interface as the first image. The terminal window shows the user has entered '7'. The output displays "Ward name : TR", "Room number : 15", "Bed number : 17", "Patient number : null", and "Enter Bed Number :17". The final output is "Bed has been deleted".

```
code. compile. run. debug. share.
IDE
My Projects
Classroom new
Learn Programming
Programming Questions
Sign Up
Login
f 156K

Hospital Patient Application
*****
1--> Press '1' to Add Patient
2--> Press '2' to Search for Patient
3--> Press '3' to Add Bed
4--> Press '4' to Look up bed status
5--> Press '5' to Assign a bed to patient
6--> Press '6' to Disharged Patient
7--> Press '7' to Delete Bed
0--> Press '0' to Exit
7
Ward name : TR
Room number : 15
Bed number : 17
Patient number : null
Enter Bed Number :17

Bed has been deleted
```

**This program monitors and track patients receiving in-hospital care. Through this program, you can monitor and track the number of rooms and beds available in the hospital, and you can also know the rooms and beds reserved for patients and many more features that you can search for through the user manual attached below**

### **User manual**

```

      Hospital Patient Application
*****
1--> Press '1' to Add Patient
2--> Press '2' to Search for Patient
3--> Press '3' to Add Bed
4--> Press '4' to Look up bed status
5--> Press '5' to Assign a bed to patient
6--> Press '6' to Disharged Patient
7--> Press '7' to Delete Bed
0--> Press '0' to Exit

```

## Custom functions

1. readData() : this function reads information of beds and patients
2. dataBase() : Write all Beds data in file and write all patients data in file
3. deleteBed() : in this function we list all beds, take an input from user to compare it, then if input is found, the loop will stop and delete the Bed, if flag still 0, so the Bed is not found. Also, if user enters 0, Program will go back to the menu
4. MakeAvailable() : in this function we list all Beds, take an input from user to compare it, if input is found, the loop will stop and make a bed available, if flag still 0 or null, so the Bed is not found or is already available, if user enters 0, Program will go back to the menu
5. AssignBed() : take an input to compare it, if input is found, the loop will stop and Assign this bed, if flag still 0 or null, so the Bed is not found or is already assigned, if user enters 0, Program will go back to the menu
6. searchBed() : to Search for bed by Ward + Room number + bed number or Search by Patient ID
7. addBed() : take Patient information : ward name, room number, bed number, ID and compare, then add bed to an array
8. addPatient() : take Patient information : name, ID, phone number, add patient to array
9. searchPatient() : Search for patient by ID or name or phone number

## C standard library functions

printf()

scanf()

fscanf()

fprintf()

fopen()

fclose()

