## IBM CAREER EDUCATION

#### **MAIN PROJECT**

**DOMAIN NAME: JAVA** 

# HOSPITAL MANAGEMENT System

#### **Submitted By**

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#### **Submitted To**

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## **FLOWCHART**

## SOFTWARE SPECIFICATIONS

➤ OPERATING SYSTEM : Linux / Windows / IOS

➤ ENVIRONMENT : IBM RAD Software

### HARDWARE SPECIFICATIONS

 $\triangleright$  PROCESSOR : Intel(R) Core(TM) I3-

7020U CPU @

2.30GHz

➤ RAM : 8.00 GB

➤ MONITOR : 15" COLOR

➤ HARD DISK : 1 TB

### **DESCRIPTION**

#### **INTRODUCTION:**

This project is about managing whole hospital which includes Doctor, patient, medicines, laboratories etc..

#### **DESCRIPTION:**

Here we had made a program which maintains the records regarding to Doctor and patients and remaining staffs members and also includes records of laboratories.

Here we can add the information about new Doctors and their specialization and their coalification etc..

And we can also retrieve the information about Doctors and their schedule.

In this program we maintains the records regarding to the patients that what disease they have and what's their admit status.

And even we can retrieve the records of old patients as well.

Here we can store medicine details as well which includes its expiry date, costs, name etc..

Not only this, we can introduce new medicines, and store their details as well.

And now, in this program we can store laboratories and what facilities they provides and what are the cost of that laboratory.

Not only this, if we introduce a new lab then we can add its detail as well.

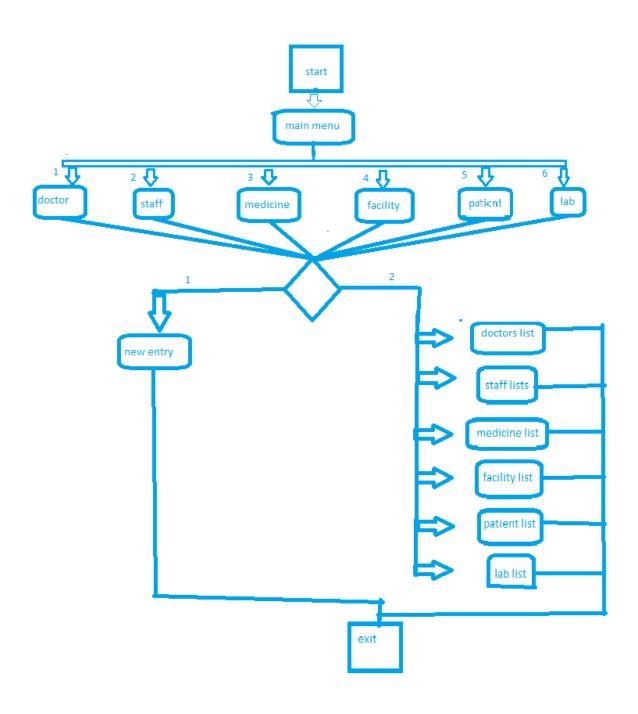
Now suppose if we add a new facility like free ambulance for old people and for an emergency then we can update that as well in this program.

Now here we can maintain the records regarding to staff as well which includes nurses, worker and security.

We can update and retrieve that as well.

So this was a mini description about our project (program).

#### Flow chart



#### **ADVANTAGES**:

One of the main advantage of this program is that we will be getting everything on our finger-tips and that so very faster and with a great ease.

Another advantage is that now there will be no need of registers for maintaining records of different sectors of hospitals (huge amount of pages will be saved).

And another advantage will be that information will be available for 24 hours.

#### **DISADVANTAGES**:

One of the biggest disadvantage will be unemployment.

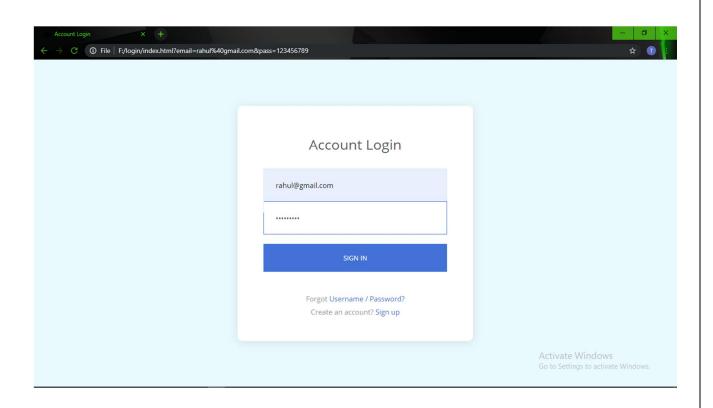
Another disadvantage will be data breaching (since there will be risk of data losing of regarding customers.)

And last disadvantage will be that the implementation of this will be hard a little bit.

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## Hospital Management System

## **Pictures**



## Hospital Management System

#### AIM:

To work more efficiently and with a great pace and to do smart work.

#### **PROGRAM**:

```
import java.util.*;
class Inputs
{
  static Scanner input = new Scanner(System.in);
```

```
public static String name, id, sex, disease,
desigination;
 public static int salary, age;
 static public String get_name()
 {
  System.out.print("Name:-");
  name = input.nextLine();
  return name;
 }
 static public String get_id()
 {
  System.out.print("Id:-");
  name = input.nextLine();
  return id;
```

```
static public String get_sex()
{
 System.out.print("Sex:-");
 name = input.nextLine();
 return sex;
}
static public int get_salary()
 System.out.print("Salary:-");
 salary = input.nextInt();
 return salary;
static public int get_age()
```

```
{
 System.out.print("Age:-");
 age = input.nextInt();
 return age;
}
static public String get disease()
{
 System.out.print("Disease:-");
 disease = input.nextLine();
 return disease;
}
static public String get_designation()
{
 System.out.print("Designation:-");
```

```
desigination = input.nextLine();
  return desigination;
 }
class staff
public String sid, sname, desg, sex;
static public int staff_count=0;
int salary;
void new_staff()
```

```
System.out.println("Enter Your Data ---->");
 sid = Inputs.get_id();
 desg = Inputs.get designation();
 sex = Inputs.get_sex();
 salary = Inputs.get_salary();
 staff count++;
void staff info()
 System.out.println(sid + "\t" + sname + "\t" +
sex + "\t" + salary);
}
}
```

```
class doctor
public String did, dname, specilist, appoint,
doc_qual;
public int droom;
private static int no doctor=0;
void new doctor()
 Scanner input = new Scanner(System.in);
 System.out.println("Enter Your Data ---->");
 did = Inputs.get_id();
 dname = Inputs.get name();
 System.out.print("Specilization:-");
```

```
specilist = input.nextLine();
System.out.print("Work Time:-");
appoint = input.nextLine();
System.out.print("Qualification:-");
doc qual = input.nextLine();
System.out.print("Room no.:-");
droom = input.nextInt();
no_doctor++;
void doctor_info()
```

```
System.out.println(did + "\t" + dname + " \t" +
specilist + " \t" + appoint + " \t" + doc_qual
+ " \t" + droom);
class patient
{
public String pid, pname, disease, sex,
admit status;
public int age;
 private static int no_patient=0;
void new_patient()
 Scanner input = new Scanner(System.in);
```

```
System.out.println("Enter Your Data ---->");
pid = Inputs.get_id();
pname = Inputs.get name();
disease = Inputs.get_disease();
sex = Inputs.get_sex();
System.out.print("Admit Status:-");
admit status = input.nextLine();
age = Inputs.get age();
no patient++;
void patient_info()
```

```
System.out.println(pid + "\t" + pname + " \t" +
disease + " \t" + sex + " \t" + admit_status +
"t" + age);
}
class medical
public String med_name, med_comp, exp_date;
public int med cost, count;
void new_medi()
 Scanner input = new Scanner(System.in);
```

```
med name = Inputs.get name();
System.out.print("comp:-");
med_comp = input.nextLine();
System.out.print("exp date:-");
exp_date = input.nextLine();
System.out.print("cost:-");
med cost = input.nextInt();
System.out.print("no of unit:-");
count = input.nextInt();
```

```
void find_medi()
 System.out.println(med name + " \t" +
med_cost);
class lab
public String facility;
public int lab_cost;
void new_feci()
 Scanner input = new Scanner(System.in);
```

```
System.out.print("facility:-");
 facility = input.nextLine();
 System.out.print("cost:-");
 lab_cost = input.nextInt();
void feci_list()
 System.out.println(facility + "\t\t" + lab_cost);
class facility //Sorry Facility but do not change
the name
```

```
public String fec_name;
void add_feci()
Scanner input = new Scanner(System.in);
System.out.print("facility:-");
fec_name = input.nextLine();
}
void show_feci()
System.out.println(fec_name);
```

```
public class abcd
{
public static void main(String args[])
 String months[] = {"Jan", "Feb", "Mar", "Apr",
"May", "Jun", "Jul", "Aug", "Sep", "Oct", "Nov",
"Dec"};
 Calendar calendar = Calendar.getInstance();
 //System.out.println("-----
 -----");
 int count1 = 4, count2 = 4, count3 = 4, count4 =
4, count5 = 4, count6 = 4;
 System.out.println("-----
 -----');
```

```
System.out.println("
***HOSPITAL MANAGEMENT
SYATEM***");
 System.out.println("-----
    -----");
 System.out.print("Date: " +
months[calendar.get(Calendar.MONTH)] + " " +
calendar.get(Calendar.DATE) + " " +
calendar.get(Calendar.YEAR));
 System.out.println("\t\t\t\t\t\tTime: " +
calendar.get(Calendar.HOUR) + ":" +
calendar.get(Calendar.MINUTE) + ":" +
calendar.get(Calendar.SECOND));
 doctor[] d = new doctor[50];
 patient[] p = new patient[50];
 lab[] 1 = new lab[50];
 facility[] f = new facility[50];
 medical[] m = new medical[50];
 staff[] s = new staff[50];
```

```
int i;
for (i = 0; i < 50; i++)
{
d[i] = new doctor();
p[i] = new patient();
l[i] = new lab();
f[i] = new facility();
m[i] = new medical();
s[i] = new staff();
}
d[0].did = "21";
d[0].dname = "Dr.Rutvik";
d[0].specilist = "ENT";
```

```
d[0].appoint = "10-4";
d[0].doc qual = "mbbs,Md";
d[0].droom = 17;
d[1].did = "32";
d[1].dname = "Dr.Rahul";
d[1].specilist = "medi.";
d[1].appoint = "10-4";
d[1].doc_qual = "mbbs,md";
d[1].droom = 45;
d[2].did = "17";
d[2].dname = "Dr.Neel";
d[2].specilist = "Child spl";
d[2].appoint = "10-4";
d[2].doc qual = "bdm";
```

```
d[2].droom = 8;
d[3].did = "33";
d[3].dname = "Dr.Nidhay";
d[3].specilist = "Artho";
d[3].appoint = "10-4";
d[3].doc_qual = "mbbs,ms";
d[3].droom = 40;
p[0].pid = "12";
p[0].pname = "Jay";
p[0].disease = "Brain cancer";
p[0].sex = "male";
p[0].admit_status = "y";
p[0].age = 30;
```

```
p[1].pid = "13";
p[1].pname = "Jatin";
p[1].disease = "Almost Dead (on ventilator)";
p[1].sex = "male";
p[1].admit_status = "y";
p[1].age = 23;
p[2].pid = "14";
p[2].pname = "Gaurav";
p[2].disease = "maleriya";
p[2].sex = "male";
p[2].admit_status = "y";
p[2].age = 45;
p[3].pid = "15";
```

```
p[3].pname = "ravi";
p[3].disease = "sugar";
p[3].sex = "male";
p[3].admit_status = "y";
p[3].age = 25;
m[0].med_name = "corex";
m[0].med_comp = "cino pvt";
m[0].exp date = "9-5-16";
m[0].med cost = 55;
m[0].count = 8;
m[1].med_name = "nytra";
m[1].med comp = "ace pvt";
m[1].exp date = "4-4-15";
```

```
m[1].med_cost = 500;
m[1].count = 5;
m[2].med name = "brufa";
m[2].med_comp = "reckitt";
m[2].exp_date = "12-7-17";
m[2].med cost = 50;
m[2].count = 56;
m[3].med_name = "pride";
m[3].med_comp = "ddf pvt";
m[3].exp_date = "12-4-12";
m[3].med_cost = 1100;
m[3].count = 100;
```

```
1[0].facility = "x-ray ";
1[0].lab_cost = 800;
1[1].facility = "ct scan ";
1[1].lab cost = 1200;
1[2].facility = "or scan ";
1[2].lab_cost = 500;
1[3].facility = "blood bank";
1[3].1ab cost = 50;
f[0].fec_name = "ambulane";
f[1].fec name = "admit fec";
```

```
f[2].fec name = "canteen";
f[3].fec_name = "free camp";
s[0].sid = "22";
s[0].sname = "ravi";
s[0].desg = "worker";
s[0].sex = "male";
s[0].salary = 5000;
s[1].sid = "23";
s[1].sname = "komal";
s[1].desg = "nurse";
s[1].sex = "female";
```

```
s[1].salary = 2000;
s[2].sid = "24";
s[2].sname = "raju";
s[2].desg = "worker";
s[2].sex = "male";
s[2].salary = 5000;
s[3].sid = "25";
s[3].sname = "rani";
s[3].desg = "nurse";
s[3].sex = "female";
s[3].salary = 20000;
```

Scanner input = new Scanner(System.in);

```
int choice, j, c1, status = 1, s1 = 1, s2 = 1, s3 =
1, s4 = 1, s5 = 1, s6 = 1;
 while (status == 1)
 {
 System.out.println("\n
MAIN MENU");
 System.out.println("-----
 System.out.println(" 1.DOCTOR \n
2.PATIENT \n 3.MEDICAL \n 4.LAB \n
5.FACILITY \n 6.STAFF \n 7.EXIT");
 System.out.println("-----
```

```
System.out.print("Enter Your Choice :-> ");
 choice = input.nextInt();
 switch (choice)
 case 1:
   System.out.println("-----
     ·----');
   System.out.println("
**DOCTOR SECTION**");
   System.out.println("-----
  s1 = 1;
  while (s1 == 1)
   System.out.println("1.new entry\n2.doctor
list");
```

```
System.out.print("Enter Your Choice :-> ");
c1 = input.nextInt();
switch (c1)
case 1:
 d[count1].new_doctor();
 count1++;
 break;
case 2:
 System.out.println("-----
```

```
System.out.println("id \t name\t specilist \t timing \t qualification \t room no");
```

```
System.out.println("-----
     for (j = 0; j < count1; j++)
     d[j].doctor_info();
     break;
   System.out.println("RETURN BACK press
(1/0) for more");
```

s1 = input.nextInt();

```
break;
  }
 case 2:
  System.out.println("-----
System.out.println("
**PATIENT SECTION**");
   System.out.println("-----
```

```
s2 = 1;
   while (s2 == 1)
    System.out.println("1.new entry\n2.patient
list");
    c1 = input.nextInt();
    switch (c1)
    case 1:
     {
      p[count2].new_patient();count2++;
      break;
```

```
case 2:
     System.out.println("-----
     System.out.println("id \t name \t disease \t
sex \t admit status \t age");
     System.out.println("-----
      -----');
     for (j = 0; j < count2; j++) {
     p[j].patient_info();
     break;
   System.out.println("RETURN BACK press
(1/0) for more");
   s2 = input.nextInt();
```

```
break;
  }
  case 3:
   s3 = 1;
   System.out.println("-----
   System.out.println("
**MEDICAL SECTION**");
   System.out.println("-----
   while (s3 == 1)
   System.out.println("1.new entry\n2.medicine
list");
   c1 = input.nextInt();
```

```
switch (c1)
    case 1:
     m[count3].new_medi();count3++;
     break;
    case 2:
     System.out.println("-----
     System.out.println("name \t company \t
expirity date \t cost");
     System.out.println("-----
```

```
for (j = 0; j < count3; j++) {
      m[j].find_medi();
      break;
    System.out.println("RETURN BACK press
(1/0) for more");
    s3 = input.nextInt();
   break;
  case 4:
   s4 = 1;
```

```
System.out.println("-----
  System.out.println("
**LABORATORY SECTION**");
  System.out.println("-----
 -----');
  while (s4 == 1)
   System.out.println("1.new entry \n2.lab
list");
   c1 = input.nextInt();
   switch (c1)
   case 1:
    {
    l[count4].new feci();count4++;
    break;
```

```
case 2:
     System.out.println("-----
     System.out.println("facility\t\tcost");
     System.out.println("-----
   -----;(");
     for (j = 0; j < count4; j++) {
     l[j].feci_list();
    break;
   System.out.println("RETURN BACK press
(1/0) for more");
   s4 = input.nextInt();
```

```
break;
  }
 case 5:
  s5 = 1;
  System.out.println("-----
  System.out.println(" **HOSPILITY
FACILITY SECTION**");
  System.out.println("-----
    -----');
  while (s5 == 1)
   System.out.println("1.new entry\n2.fecility
list");
   c1 = input.nextInt();
```

```
switch (c1)
    case 1:
     {
     f[count5].add_feci();count5++;
     break;
    case 2:
     System.out.println("-----
     System.out.println("Hospility facility are:-
");
     System.out.println("-----
     for (j = 0; j < count5; j++) {
```

```
f[j].show_feci();
     break;
   System.out.println("RETURN BACK press
(1/0) for more");
   s5 = input.nextInt();
   break;
  }
  case 6:
   s6 = 1;
   System.out.println("-----
```

```
System.out.println("
                                    **STAFF
SECTION**");
   System.out.println("-----
   while (s6 == 1)
    String a = "nurse", b = "worker", c =
"security";
    System.out.println("1.new entry\n2.nurse
list\n3.worker list \n4.securuty list");
   c1 = input.nextInt();
    switch (c1)
    case 1:
     {
     s[count6].new staff();count6++;
     break;
```

```
case 2:
     System.out.println("-----
     System.out.println("id \t name \t sex \t
salary");
     System.out.println("-----
     for (j = 0; j < count6; j++)
      if (a.equals(s[j].desg))
      s[j].staff_info();
     break;
```

```
case 3:
    System.out.println("-----
     System.out.println("id \t name \t sex \t
salary");
    System.out.println("-----
      -----');
     for (j = 0; j < count6; j++)
     if (b.equals(s[j].desg))
     s[j].staff_info();
    break;
   case 4:
```

```
System.out.println("-----
     System.out.println("id \t name \t sex \t
salary");
     System.out.println("-----
     for (j = 0; j < count6; j++)
     if (c.equals(s[j].desg))
      s[j].staff_info();
```

```
break;
    System.out.println("RETURN BACK press
(1/0) for more");
    s6 = input.nextInt();
   break;
  case 7:
   break;
   }
  default:
   {
```

```
System.out.println("enter wrong choice!");
}
System.out.println("RETURN MAIN MENU
press (1/0) for more");
status = input.nextInt();
}
}
```

## **EXPLANATION ABOUT PROJECT:**

Here we provide a sequence of choice amongst which user (here user will be assumed as database administrator) had to choose and according to its choice we will perform several actions.

The sequence of the choices are below:

And based on your choice you will be getting particular field in which you want to do the operations or to retrieve the data.

# **OUTPUT SCREENSHOTS:**

**Doctor:** 

#### MAIN MENU 1.DOCTOR 2.PATIENT 3.MEDICAL S. FACILITY 6.STAFF 7.EXIT Enter Your Choice :-> 1 \*\*DOCTOR SECTION\*\* 1.new entry 2.doctor list Enter Your Choice :-> 1 Enter Your Data ----> Id:-133 Name:-abcdefg Specilization:-surgeon Work Time: -5 Qualification:-mbbs Room no.:-18 RETURN BACK press (1/0) for more MAIN MENU 1. DOCTOR 2.PATIENT 3.MEDICAL 4.LAB 5.FACILITY 6.STAFF 7.EXIT Enter Your Choice :-> 1 \*\*DOCTOR SECTION\*\* \_\_\_\_\_\_ 1.new entry

2.doctor	list	
Enter You	r Choice	:-> 2

id name specilist timing qualification room no

Dr.Rutvik ENT 10-4 17 21 mbbs, Md 32 Dr.Rahul medi. 10-4 mbbs, md Child spl 10-4 17 Dr.Neel bdm Dr.Nidhay Artho 33 10-4 mbbs, ms 40

RETURN BACK press (1/0) for more

#### **Patient:**

```
2.PATIENT
 3.MEDICAL
 4.LAB
 5.FACILITY
 6.STAFF
 7.EXIT
Enter Your Choice :-> 2
               **PATIENT SECTION**
1.new entry
2.patient list
Enter Your Data ---->
Id:-16
Name:-Henil
Disease:-cancer
Sex:-male
Admit Status:-y
Age:-20
RETURN BACK press (1/0) for more
2.PATIENT
3.MEDICAL
4 LAB
5. FACILITY
6.STAFF
7.EXIT
Enter Your Choice :-> 2
              **PATIENT SECTION**
______
1.new entry
2.patient list
______
     name disease
                      sex
                            admit status age
______
          Brain cancer
                                            30
12
     Jay
    Jatin Almost Dead (on ventilator)

Gaurav maleriya male y
                                      male
                                       45
15
    ravi sugar
                                       25
                     male
                                У
RETURN BACK press (1/0) for more
```

## **Medicine:**

```
Enter Your Choice :-> 3
               **MEDICAL SECTION**
1.new entry
2.medicine list
                 expirity date cost
     company
-----
corex cino pvt
                 9-5-16
                 4-4-15
nytra ace pvt
                12-7-17
brufa reckitt
                            50
pride ddf pvt 12-4-12
RETURN BACK press (1/0) for more
```

#### **Laboratory:**

```
Z.PALIENI
3.MEDICAL
4.LAB
5.FACILITY
6.STAFF
7.EXIT
Enter Your Choice :-> 4
                **LABORATORY SECTION**
-----
1.new entry
2.lab list
facility
                   800
x-ray
ct scan
                   1200
                  500
blood bank
RETURN BACK press (1/0) for more
```

## **Facility:**

```
2.PATIENT
3.MEDICAL
4.LAB
5.FACILITY
6.STAFF
7.EXIT
______
Enter Your Choice :-> 5
-----
      **HOSPILITY FACILITY SECTION**
_____
1.new entry
2.fecility list
______
Hospility facility are:-
ambulane
admit fec
canteen
free camp
RETURN BACK press (1/0) for more
                         MAIN MENU
 1.DOCTOR
 2.PATIENT
3.MEDICAL
4.LAB
5. FACILITY
6.STAFF
7.EXIT
Enter Your Choice :-> 5
_____
       **HOSPILITY FACILITY SECTION**
1.new entry
2.fecility list
facility:-free health checkup
RETURN BACK press (1/0) for more
0
```

#### Staff:

```
Enter Your Choice :-> 6
                   **STAFF SECTION**
1.new entry
2.nurse list
3.worker list
4.securuty list
-----
id
              sex
       name
                     salary
   komal female 2000
rani female 20000
23
25
RETURN BACK press (1/0) for more
RETURN MAIN MENU press (1/0) for more
1
Date: Oct 4 2019
                           MAIN MENU
_____
 1.DOCTOR
 2.PATIENT
 3.MEDICAL
 4.LAB
 5. FACILITY
 7.EXIT
Enter Your Choice :-> 6
                  **STAFF SECTION**
1.new entry
2.nurse list
3.worker list
4.securuty list
id name sex salary
22 ravi male 5000
24 raju male 5000
RETURN BACK press (1/0) for more
```

```
2.nurse list
3.worker list
4.securuty list
3
id name sex salary

22 ravi male 5000
24 raju male 5000
RETURN BACK press (1/0) for more
0
RETURN MAIN MENU press (1/0) for more
```

#### **Exit:**

```
MAIN MENU

1.DOCTOR
2.PATIENT
3.MEDICAL
4.LAB
5.FACILITY
6.STAFF
7.EXIT

Enter Your Choice :-> 7
RETURN MAIN MENU press (1/0) for more
0
BUILD SUCCESSFUL (total time: 9 minutes 41 seconds)
```

# **REFERENCES:** (3 References Should Be There)

Geeks for geek;

IBM Modules;

# **CONCLUSION:**

The final conclusion for this program will be that a simple java program can handle such a huge amount of management and data with a great ease and also provides us information anytime.

Thank you!