

**NEW GREEN FIELD SCHOOL,**

**SAKET**

**COMPUTER SCIENCE**



**2022-2023 SESSION**

**PROJECT :**

**HOSPITAL**

**MANAGEMENT SYSTEM**

**SUBMITTED TO :**

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**SUBMITTED BY :**

**NAME – LAVANYA**

**CLASS – XII-B**

**ROLL NO – 20**

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# CERTIFICATE

This is to certify that “Lavanya”, student of class XII-B has successfully completed her Computer Science Project on “**HOSPITAL MANAGEMENT SYSTEM** ” under the guidance and supervision of Mrs. Amrita Ma’am.

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Signature  
(Subject Teacher)

# ACKNOWLEDGEMENT

I would like to express my special thanks to my Computer Science Teacher Mrs. Amrita Ma'am who gave me guidance and helped me to know about this subject. I had made this project with utmost sincerity to complete it.

I am very thankful to all those people who helped me and guided me to make such a project.

I also thank my parents who have provided me all the resources required to make this project.

# INTRODUCTION

In this project on the HOSPITAL MANAGEMENT SYSTEM, we are going to learn the entire process step by step. We are going to learn starting from the Registration to the discharge of the patient using Python Programming Language.

We are aware of the Hospital management work. There comes the registration of new patients, the doctor's details. The nurse's details and lastly the discharge summary of the patient.

## SOFTWARE USED :

- Operating System -- Windows 11
- Python Version -- 3.10.6
- Database -- MYSQL
- mysql-connector-python -- For database connectivity with the program

## **FEATURES :**

Here as we are using MySQL for database creation in Hospital Management, we are able to

- Register new patient
- View the patient's information, discharge.
- Delete the details.
- We can add, delete and modify and view the details of the doctors, nurses.

## **PROJECT OBJECTIVE :**

- To computerize all details regarding patient details & hospital details.
- To automate the process of ward entries.
- To maintain records effectively.

## FUNCTIONS CREATED :

- dr\_details() – It shows all the details of doctors.
- nurse\_details() – It shows all the details of nurses.
- add\_dr() – To add a doctor in hospital's record.
- add\_nurse() – To add a nurse in hospital's record.
- del\_dr() – To delete a doctor from hospital's record.
- del\_nurse() – To delete a nurse from hospital's record.
- pat\_details() – It shows all the details of patient.
- add\_pat() – To add a patient in hospital's record.
- dis\_pat() – To discharge a patient.

# PROGRAMS

```
PROJECT.py - C:\Users\ACER\Desktop\LAVANYA\PROJECT.py (3.10.6)
File Edit Format Run Options Window Help
b="N"
while b.upper()!="N":
    print("-----")
    print("WELCOME TO CITY HOSPITAL")
    print("-----")
    import mysql.connector
    passwd=input("ENTER THE DATABASE PASSWORD : ")

    mysql=mysql.connector.connect(host="localhost",user="root",passwd="lavanya")
    mycursor=mysql.cursor()
    mycursor.execute("CREATE DATABASE HOSPITAL")
    mycursor.execute("CREATE TABLE patient_details(NAME varchar(30) NOT NULL,AGE char(3),ADDRESS varchar(50),CONTACT varchar(15))")
    mycursor.execute("CREATE TABLE doctor_details(NAME varchar(30) NOT NULL,SPECIALISATION varchar(40),AGE int(2),ADDRESS varchar(30),CONTACT varchar(15),FEES int(10),MONTHLY_SALARY int(10))")
    mycursor.execute("CREATE TABLE nurse_details(NAME varchar(30) NOT NULL,AGE int(2),ADDRESS varchar(30),CONTACT varchar(15),MONTHLY_SALARY int(10))")
    mycursor.execute("CREATE TABLE user_data(USERNAME varchar(30) NOT NULL,PASSWORD varchar(30) PRIMARY KEY)")
    b1="Y"
    while b1.upper()=="Y":
        print("-----")
        print(" 1. SIGN UP (REGISTER) ")
        print(" 2. SIGN IN (LOGIN) ")
        print("-----")
        r=int(input("Enter your choice : "))
        if r==1:
            print("-----")
            print("!!!!!! PLEASE REGISTER YOURSELF !!!!!!!")
            print("-----")
            u=input("ENTER YOUR PREFERRED USERNAME : ")
            p=input("ENTER YOUR PREFERRED PASSWORD : ")
            mycursor.execute("insert into user_data values('"+u+"','"+p+"')")
            mysql.commit()
            print("-----")
            print("!!!!!! REGISTERED SUCCESSFULLY !!!!!!!")
            print("-----")
        elif r==2:
            print("-----")
            print("SIGN IN.....")
```

```
PROJECT.py - C:\Users\ACER\Desktop\LAVANYA\PROJECT.py (3.10.6)
File Edit Format Run Options Window Help
print("-----")
print("-----SIGN IN-----")
print("-----")
un=input("ENTER THE USERNAME : ")
ps=input("ENTER THE PASSWORD : ")
mycursor.execute("select password from user_data where username='"+un+"'")
row=mycursor.fetchall()
for i in row:
    l=list(i)
    if l[0]==str(ps):
        while(True):
            print("-----")
            print(" 1.ADMINISTRATION ")
            print(" 2.PATIENT ")
            print(" 3.SIGN OUT ")
            print("-----")
            a=int(input("Enter your choice :"))
            if a==1:
                print("-----")
                print(" 1. DOCTOR DETAILS ")
                print(" 2. NURSE DETAILS ")
                print(" 3. EXIT ")
                print("-----")
                b=int(input("Enter your choice :"))
```

```
PROJECT.py - C:\Users\ACER\Desktop\LAVANYA\PROJECT.py (3.10.6)
File Edit Format Run Options Window Help
-----
b=int(input("Enter your choice : "))
if b==1:
    print(""""
        1. ADD NEW MEMBER
        2. DELETE EXISTING MEMBER
        3. SHOW DETAILS
        4. EXIT
    """)
c=int(input("Enter your choice : "))
if c==1:
    choice="Y"
    while choice.upper()=="Y":
        add_dr()
        print("~~~~~SUCCESSFULLY ADDED~~~~~")
        choice=input("Do you want to enter another record (Y/N) : ")
elif c==2:
    del_dr()
elif c==3:
    dr_details()
elif c==4:
    break
else:
    print(" Enter a correct choice option ")
elif b==2:
    print(""""
        1. ADD NEW MEMBER
        2. DELETE EXISTING MEMBER
        3. SHOW DETAILS
        4. EXIT
    """)


```

```
PROJECT.py - C:\Users\ACER\Desktop\LAVANYA\PROJECT.py (3.10.6)
File Edit Format Run Options Window Help
-----
print(""""
        1. ADD NEW MEMBER
        2. DELETE EXISTING MEMBER
        3. SHOW DETAILS
        4. EXIT
    """)

c=int(input("Enter your choice : "))
if c==1:
    choice="Y"
    while choice.upper()=="Y":
        add_nurse()
        print("~~~~~SUCCESSFULLY ADDED~~~~~")
        choice=input("Do you want to enter another record (Y/N) : ")
elif c==2:
    del_nurse()
elif c==3:
    nurse_details()
elif c==4:
    break
else:
    print(" Enter a correct choice option ")
elif b==4:
    break
else:
    print(" Enter a correct choice option ")
elif a==2:
```

```

PROJECT.py - C:\Users\ACER\Desktop\LAVANYA\PROJECT.py (3.10.6)
File Edit Format Run Options Window Help
    print(" Enter a correct choice option ")
elif a==2:
    while True:
        print("""
1. SHOW PATIENT DETAILS
2. ADD NEW PATIENT
3. DISCHARGE PATIENT
4. EXIT
""")
        b=int(input("ENTER YOUR CHOICE : "))
        if b==1:
            pat_details()
        elif b==2:
            choice="Y"
            while choice.upper()=='Y':
                add_pat()
                print("~~~~~SUCCESSFULLY ADDED~~~~~")
                choice=input("Do you want to enter another record (Y/N) : ")
        elif b==3:
            dis_pat()
        elif b==4:
            break
        elif a==3:
            break
        elif a!=1 or a!=2 or a!=3:
            print(" Enter a correct choice option ")
    elif l[0]!=str(ps):

```

```

PROJECT.py - C:\Users\ACER\Desktop\LAVANYA\PROJECT.py (3.10.6)
File Edit Format Run Options Window Help
    print(" Enter a correct choice option ")
elif l[0]!=str(ps):
    print(" INCORRECT PASSWORD ")
else:
    print(" SIGNED OUT ")
    break
b1=input("Do you want to continue? (Y/N) : ")

import mysql.connector
mysql=mysql.connector.connect(host="localhost",user="root",passwd="lavanya",database="HOSPITAL")
mycursor=mysql.cursor()

def dr_details():
    mycursor.execute("select * from doctor_details")
    row=mycursor.fetchall()
    k=["NAME ","SPECIALISATION ","AGE ","ADDRESS ","CONTACT ","FEES ","MONTHLY_SALARY "]
    print(k)
    for i in row:
        v=list(i)
        print(v)

def nurse_details():
    mycursor.execute("select * from nurse_details")
    row=mycursor.fetchall()
    k=["NAME ","AGE ","ADDRESS ","CONTACT ","MONTHLY_SALARY "]
    print(k)
    print(" ")
    for i in row:

```

```
PROJECT.py - C:\Users\ACER\Desktop\LAVANYA\PROJECT.py (3.10.6)
File Edit Format Run Options Window Help


```

print(k)
print(" ")
for i in row:
    v=list(i)
    print(v)

def add_dr():
    name=input("Enter doctor name : ")
    spe=input("Enter specialisation : ")
    age=input("Enter age : ")
    add=input("Enter address : ")
    cont=input("Enter contact no. : ")
    fees=input("Enter fees : ")
    ms=input("Enter monthly_salary : ")
    mycursor.execute("insert into doctor_details values(\""+name+"','"+spe+"','"+age+"','"+add+"','"+cont+"','"+fees+"','"+ms+"\")")
    mysql.commit()

def add_nurse():
    name=input("Enter nurse name : ")
    age=input("Enter age : ")
    add=input("Enter address : ")
    cont=input("Enter contact no. : ")
    ms=input("Enter monthly_salary : ")
    mycursor.execute("insert into nurse_details values(\""+name+"','"+age+"','"+add+"','"+cont+"','"+ms+"\")")
    mysql.commit()

def del_dr():
    name=input("Enter doctor name : ")

```


```

```
PROJECT.py - C:\Users\ACER\Desktop\LAVANYA\PROJECT.py (3.10.6)
File Edit Format Run Options Window Help


```

def del_dr():
    name=input("Enter doctor name : ")
    mycursor.execute("select * from doctor_details where name='"+name+"'")
    row=mycursor.fetchall()
    print(row)
    p=input("you really wanna delete this data? (Y/N) : ")
    if p.upper()=="Y":
        mycursor.execute("delete from doctor_details where name='"+name+"'")
        mysql.commit()
        print("~~~~~SUCCESSFULLY DELETED~~~~~")
    else:
        print("NOT DELETED")

def del_nurse():
    name=input("Enter nurse name : ")
    mycursor.execute("select * from nurse_details where name='"+name+"'")
    row=mycursor.fetchall()
    print(row)
    p=input("you really wanna delete this data? (Y/N) : ")
    if p.upper()=="Y":
        mycursor.execute("delete from nurse_details where name='"+name+"'")
        mysql.commit()
        print("~~~~~SUCCESSFULLY DELETED~~~~~")
    else:
        print("NOT DELETED")

def pat_details():

```


```

```
PROJECT.py - C:\Users\ACER\Desktop\LAVANYA\PROJECT.py (3.10.6)
File Edit Format Run Options Window Help

def pat_details():
    mycursor.execute("select * from patient_details")
    row=mycursor.fetchall()
    k=["NAME","GENDER","AGE","ADDRESS","CONTACT"]
    print(k)
    for i in row:
        v=list(i)
        print(v)

def add_pat():
    name=input("Enter patient name : ")
    age=input("Enter age : ")
    add=input("Enter address : ")
    cont=input("Enter contact no. : ")
    mycursor.execute("insert into patient_details values('"+name+"','"+age+"','"+add+"','"+cont+"')")
    mysql.commit()

def dis_pat():
    name=input("Enter patient name : ")
    mycursor.execute("select * from patient_details where name='"+name+"'")
    row=mycursor.fetchall()
    print(row)
    bill=input("HAS HE PAID ALL THE BILLS ? (y/n) : ")
    if bill.upper()=='Y' :
        mycursor.execute("delete from patient_details where name='"+name+"'")
        mysql.commit()
    b=input("Do you want to sign out ? (Y/N) : ")
```

# OUTPUT

```
IDLE Shell 3.10.6
File Edit Shell Debug Options Window Help
Python 3.10.6 (tags/v3.10.6:9c7b4bd, Aug 1 2022, 21:53:49) [MSC v.1932 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>> ===== RESTART: C:\Users\ACER\Desktop\LAVANYA\PROJECT.py =====

===== WELCOME TO CITY HOSPITAL =====

ENTER THE DATABASE PASSWORD : lavanya

-----
1. SIGN UP (REGISTER)
2. SIGN IN (LOGIN)

Enter your choice : 1

!!!!!! PLEASE REGISTER YOURSELF !!!!!

ENTER YOUR PREFERRED USERNAME : Lavanya
ENTER YOUR PREFERRED PASSWORD : pcm

!!!!!! REGISTERED SUCCESSFULLY !!!!!

Do you want to continue? (Y/N) : y

-----
1. SIGN UP (REGISTER)
2. SIGN IN (LOGIN)

Enter your choice : 2

-----SIGN IN-----
```

```
IDLE Shell 3.10.6
File Edit Shell Debug Options Window Help

-----SIGN IN-----

ENTER THE USERNAME : Lavanya
ENTER THE PASSWORD : pcm

-----
1.ADMINISTRATION
2.PATIENT
3.SIGN OUT

Enter your choice :1

-----
1. DOCTOR DETAILS
2. NURSE DETAILS
3. EXIT

Enter your choice : 1

-----
1. ADD NEW MEMBER
2. DELETE EXISTING MEMBER
3. SHOW DETAILS
4. EXIT

Enter your choice :1
Enter doctor name : Arjun
Enter specialisation : Dentist
Enter age : 26
Enter address : Noida
Enter contact no. : 987654321
Enter fess : 300
Enter monthly_salary : 550000
```

```
IDLE Shell 3.10.6
File Edit Shell Debug Options Window Help
Enter fees : 300
Enter monthly_salary : 550000
~~~~~SUCESSFULLY ADDED~~~~~
Do you want to enter another record (Y/N) : n

-----
1.ADMINISTRATION
2.PATIENT
3.SIGN OUT
-----
Enter your choice :1

-----
1. DOCTOR DETAILS
2. NURSE DETAILS
3. EXIT
-----
Enter your choice : 2

-----
1. ADD NEW MEMBER
2. DELETE EXISTING MEMBER
3. SHOW DETAILS
4. EXIT
-----
Enter your choice :1
Enter nurse name : Pooja
Enter age : 29
Enter address : Saket
Enter contact no. : 8800023456
Enter monthly_salary : 80000
~~~~~SUCESSFULLY ADDED~~~~~
Do you want to enter another record (Y/N) : n

-----
1.ADMINISTRATION
```

```
IDLE Shell 3.10.6
File Edit Shell Debug Options Window Help
-----
1.ADMINISTRATION
2.PATIENT
3.SIGN OUT
-----
Enter your choice :1

-----
1. DOCTOR DETAILS
2. NURSE DETAILS
3. EXIT
-----
Enter your choice : 1

-----
1. ADD NEW MEMBER
2. DELETE EXISTING MEMBER
3. SHOW DETAILS
4. EXIT
-----
Enter your choice :3
[NAME , 'SPECIALISATION ', 'AGE ', 'ADDRESS ', 'CONTACT ', 'FEES ', 'MONTHLY_SALARY ']
[Arjun', 'Dentist', 26, 'Noida', '987654321', 300, 550000]

-----
1.ADMINISTRATION
2.PATIENT
3.SIGN OUT
-----
Enter your choice :1

-----
1. DOCTOR DETAILS
2. NURSE DETAILS
3. EXIT
-----
```

IDLE Shell 3.10.6

File Edit Shell Debug Options Window Help

2. NURSE DETAILS  
3. EXIT

-----

Enter your choice : 2

-----

1. ADD NEW MEMBER  
2. DELETE EXISTING MEMBER  
3. SHOW DETAILS  
4. EXIT

-----

Enter your choice : 3

[NAME , 'AGE ', 'ADDRESS ', 'CONTACT ', 'MONTHLY\_SALARY ']

[Pooja', 29, 'Saker', '8800023456', 80000]

-----

1.ADMINISTRATION  
2.PATIENT  
3.SIGN OUT

-----

Enter your choice : 2

-----

1. SHOW PATIENT DETAILS  
2. ADD NEW PATIENT  
3. DISCHARGE PATIENT  
4. EXIT

-----

ENTER YOUR CHOICE : 2

Enter patient name : Ravi

Enter age : 30

Enter address : Mehrauli

Enter contact no. : 8976520233

~~~~~SUCCESSFULLY ADDED~~~~~

Do you want to enter another record (Y/N) : y

```
idle Shell 3.10.6
File Edit Shell Debug Options Window Help
~~~~~SUCCESSFULLY ADDED~~~~~
Do you want to enter another record (Y/N) : y
Enter patient name : Preeti
Enter age : 29
Enter address : Faridabad
Enter contact no. : 9992347711
~~~~~SUCCESSFULLY ADDED~~~~~
Do you want to enter another record (Y/N) : n

-----
1. SHOW PATIENT DETAILS
2. ADD NEW PATIENT
3. DISCHARGE PATIENT
4. EXIT
-----

ENTER YOUR CHOICE : 1
[NAME  ', 'GENDER ', 'AGE ', 'ADDRESS  ', 'CONTACT  ']
[Ravi', '30', 'Mehrauli', '8976520233']
[Preeti', '29', 'Faridabad', '9992347711']

-----
1. SHOW PATIENT DETAILS
2. ADD NEW PATIENT
3. DISCHARGE PATIENT
4. EXIT
-----

ENTER YOUR CHOICE : 3
Enter patient name : Ravi
[['Ravi', '30', 'Mehrauli', '8976520233']]
HAS HE PAID ALL THE BILLS ? (y/n) : y

21°C
Smoke
Search
XLSX
XLS
PPTX
DOCX
EML
HTML
FDF
PDF
```

```
IDLE Shell 3.10.6
File Edit Shell Debug Options Window Help
Enter patient name : Ravi
[('Ravi', '30', 'Mehrauli', '8976520233')]
HAS HE PAID ALL THE BILLS ? (y/n) : y

-----
1. SHOW PATIENT DETAILS
2. ADD NEW PATIENT
3. DISCHARGE PATIENT
4. EXIT
-----
ENTER YOUR CHOICE : 1
[NAME ', 'GENDER ', 'AGE ', 'ADDRESS ', 'CONTACT ' ]
['Preeti', '29', 'Faridabad', '9992347711']

-----
1. SHOW PATIENT DETAILS
2. ADD NEW PATIENT
3. DISCHARGE PATIENT
4. EXIT
-----
ENTER YOUR CHOICE : 4

-----
1.ADMINISTRATION
2.PATIENT
3.SIGN OUT
-----
Enter your choice :3
Do you want to continue? (Y/N) : n
Do you want to sign out ? (Y/N) : y
```

# SQL OUTPUT :

```
mysql> show databases;
+-----+
| Database |
+-----+
| hospital |
| information_schema |
| mysql |
| performance_schema |
+-----+
4 rows in set (0.00 sec)

mysql> use hospital;
Database changed
mysql> show tables;
+-----+
| Tables_in_hospital |
+-----+
| doctor_details |
| nurse_details |
| patient_details |
| user_data |
+-----+
4 rows in set (0.00 sec)

mysql> select * from doctor_details;
+-----+-----+-----+-----+-----+-----+-----+
| NAME | SPECIALISATION | AGE | ADDRESS | CONTACT | FEES | MONTHLY_SALARY |
+-----+-----+-----+-----+-----+-----+-----+
| Arjun | Dentist | 26 | Noida | 9876543211 | 300 | 550000 |
+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> select * from doctor_details;
+-----+-----+-----+-----+-----+-----+
| NAME | SPECIALISATION | AGE | ADDRESS | CONTACT | FEES | MONTHLY_SALARY |
+-----+-----+-----+-----+-----+-----+
| Arjun | Dentist | 26 | Noida | 9876543211 | 300 | 550000 |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> select * from nurse_details;
+-----+-----+-----+-----+
| NAME | AGE | ADDRESS | CONTACT | MONTHLY_SALARY |
+-----+-----+-----+-----+
| Pooja | 29 | Saket | 8800023456 | 80000 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> select * from patient_details;
+-----+-----+-----+-----+
| NAME | AGE | ADDRESS | CONTACT |
+-----+-----+-----+-----+
| Preeti | 29 | Faridabad | 9992347711 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> select * from user_data;
+-----+-----+
| USERNAME | PASSWORD |
+-----+-----+
| Lavanya | pcm |
+-----+-----+
1 row in set (0.00 sec)

mysql> |
```

# CONCLUSION

This article gives us an insight into how we can use our skills and ideas to develop a hospital management project in python programming language and use Mysql database connectivity.

# BIBLIOGRAPHY

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# REMARKS