VIDYA MANDIR SCHOOL

2020-2021

A PROJECT REPORT ON

OUR UNIVERSE

SUBMITTED BY:

N.DHANUSH, XII STD

S.KATHIRVELAN, XII STD

S.ROHITH KRISHNA, XII STD

UNDER THE GUIDANCE OF

MRS.M.TAMILARASI (B.TECH (IT))

Department of Computer Science

VIDYA MANDIR SCHOOL, Ariyalur.

CERTIFICATE

This is to certify that **N.Dhanush** of class **XII** of

VIDYA MANDIR SCHOOL has done his/her project on **OUR UNIVERSE** under my supervision. He has taken interest and has shown at most sincerity in completion of this project.

I certify this Project up to my expectation & as per guidelines issued by **CBSE, NEW DELHI**.

Internal Examiner *External Examiner*

Principal

ACKNOWLEDGMENT

It is with pleasure that I acknowledge my sincere gratitude to our teacher, **Mrs.Tamilarasi mam** who taught and undertook the responsibility of teaching the subject computer science. I have benefited greatly from his classes.

I am especially indebted to our Principal **Smt. Sharmila Vetrivel** who has always been a source of encouragement and support and without whose inspiration this project would not have been a successful I would like to place on record heartfelt thanks to her.

Finally, I would like to express my sincere appreciation for all the other students for my batch, their friendship & the fine times that we all shared together.

CONTENT

SYSTEM REQUIREMENTS:

HARDWARE REQUIREMENTS:

- CPU: Intel Core or Xeon 3GHz (or Dual Core 2GHz) or equal AMD CPU
- Cores: Single (Dual/Quad Core is recommended)
- RAM: 4 GB (6 GB recommended)
- Graphic Accelerators: nVidia or ATI with support of OpenGL 1.5 or higher
- Display Resolution: 1280×1024 is recommended, 1024×768 is minimum.

SOFTWARE REQUIREMENTS:

- Windows OS

- python

AIM

This Project aims in connecting python programming language with mysql database and adding the details that we know about "OUR UNIVERSE" and viewing the data stored in the database.

INTRODUCTION

This project mainly asks input from the user and stores them in a database. It also allows the user to see the stored data in the database by giving the required information which is asked to the user.

Modules used:

- mysql.connector

THE PROGRAM IS DIVIDED INTO SMALL MODULES OF:

1. Fill Information of solar system
2. Fill Information of Galaxies
3. Fill Information of Stars
4. Fill Information of Exoplanets
5. Display information of solar system
6. Display information of Galaxies
7. Display information of Stars
8. Display information of Exoplanets
9. Exit
10. About us

SOURCE CODE

```
print("WE SHOULD KNOW ABOUT THE UNIVERSE WHICH WAS EARLY CREATED BY THE GOD.....")

print()

print()

print("                                        ****THE UNIVERSE****")

print()

print()
```

###creating database###

```
import mysql.connector

mydb=mysql.connector.connect(host="localhost",user="root", passwd="sqladmin123*")

mycursor=mydb.cursor()

mycursor.execute("create database if not exists Astronomy")

mycursor.execute("use Astronomy")
```

###creating required tables ###

```
mycursor.execute("create table if not exists Solar_system(sno
char(44) primary key,Name_planets varchar(130),surface_temp
char(190),surface_gravity char(10),moon varchar(120))")


mycursor.execute("create table if not exists Galaxies(sno
char(44) primary key,Name_galaxy varchar(130),Official_name
char(120),solar_system_or_star char(190),balance int(6))")


mycursor.execute("create table if not exists Stars(sno char(44)
primary key,name_stars varchar(30),State char(20),
Surface_gravity char(10),surface_temp varchar(160),balance
int(6))")


mycursor.execute("create table if not exists Exoplanets(sno
char(44) primary key,Name_exoplanets
varchar(190),Surface_gravity char(120),surface_temp
char(10),Suitable_for_life varchar(200),Nearer_star
varchar(120),balance int(6))")


mydb.commit()
while(True):
```

```
print("1=Fill Information of solar system")

print()


print("2=Fill Information of Galaxies")

print()


print("3=Fill Information of Stars")

print()


print("4=Fill Information of Exoplanets")

print()


print("5=Display information of solar system")

print()


print("6=Display information of Galaxies")
```

```
print()

print("7=Display information of Stars")

print()

print("8=Display information of Exoplanets")

print()

print("9=Exit")

print()

print("10=About us")

print()

print()

ch=int(input("Enter your choice:"))

print()

print()
```

```
    if(ch==1):

        print()

        Sno=str(input("Enter the serial number of the Planet :"))

        Name_of_planet=input("Enter the name of the
    planet:")

        Moons=str(input("Enter the number of moons of
{0}:".format(Name_of_planet)))

        Surface_gravity=str(input("Enter surface gravity of
{0}:".format(Name_of_planet)))

        Surface_temp=str(input("Enter the surface
temperature of the planet : "))

        balance=0

        mycursor.execute("insert into Solar_system
values('"+Sno+"','"+Name_of_planet+"','"+Moons+"','"+Surface_
gravity+"','"+Surface_temp+"')")

        mydb.commit()

        print()
```

```
            print("Information is successfully filled!!!")

            print()

            print()



        elif(ch==2):

            print()

            Sno=str(input("Enter the serial number of Galaxy :"))

            Name_of_galaxy=str(input("Enter the name of the
Galaxy :"))

            Official_name=str(input("enter {0}'s official
name(likeNGC_224)".format(Name_of_galaxy)))

            solar_system_or_star=str(input("enter the name of
solar system or star inside {0}...:".format(Name_of_galaxy)))

            balance=0

            mycursor.execute("insert into Galaxies
values('"+Sno+"','"+Name_of_galaxy+"','"+Official_name+"','"+s
olar_system_or_star+"','"+str(balance)+"')")
```

```
            mydb.commit()
            print("Information is successfully filled!!!")

            print()

            print()




        elif(ch==3):

            print()

            Sno=str(input('Enter the serial number of the Star:'))

            Name_of_star=input("Enter the name of the Star:")

            state=str(input("Enter the state of the {0}(red
giant,white dwarf,etc) : ".format(Name_of_star)))

            Surface_gravity=str(input("Enter surface gravity of
the {0}:".format(Name_of_star)))

            Surface_temp=str(input("Enter the surface
temperature of the Star : "))

            balance=0
```

```
            mycursor.execute("insert into Stars values('"+Sno+"',
'"+Name_of_star+"','"+state+"','"+Surface_gravity+"','"+Surfa
ce_temp+"','"+str(balance)+"')")

            mydb.commit()

            print("Information is successfully filled!!!")

            print()

            print()



        elif(ch==4):

            print()

            Sno=str(input("Enter the serial number of Planets:"))

            Name_of_exoplanets=input("Enter the name of the
exoplanet:")

            Surface_gravity=str(input("Enter surface gravity of
the exoplanet:"))

            Surface_temp=str(input("Enter the surface
temperature of the exoplanet : "))
```

```
            Suitable_for_life=input("Is the planet is suitable for
life?:")

            Nearer_star=input("Enter the name of the nearer
star or planet or any other objects...:")

            balance=0

            mycursor.execute("insert into Exoplanets
values('"+Sno+"','"+Name_of_exoplanet+"','"+Surface_gravity+"
','"+Surface_temp+"','"+Suitable_for_life+"','"+Nearer_star+"'
,'"+str(balance)+"')")
            mydb.commit()

            print("Information is successfully filled!!!")

            print()

            print()




      elif(ch==5):

            sno=str(input("Enter the sno of the planet :"))

            mycursor.execute("select * from solar_system where
```

```
sno='"+sno+"'")

            found=0

            for i in mycursor:

                if i!=():

                    print()

                    print(i)
                    print()

                    print()

                    found=1

            if found==0:

                print()

                print("No record Found.....!!!! Try entering some
records using the below menu.")

                print()

                print()
```

```
    elif(ch==6):
        sno=str(input("Enter the sno of the Galaxy :"))
        mycursor.execute("select * from Galaxies where
sno='"+sno+"'")
        found=0
        for j in mycursor:
            if j!=():
                print()
                print(j)
                print()
                print()
                found=1
        if found==0:
            print()
            print("No Record Found....!!  Try entering some
```

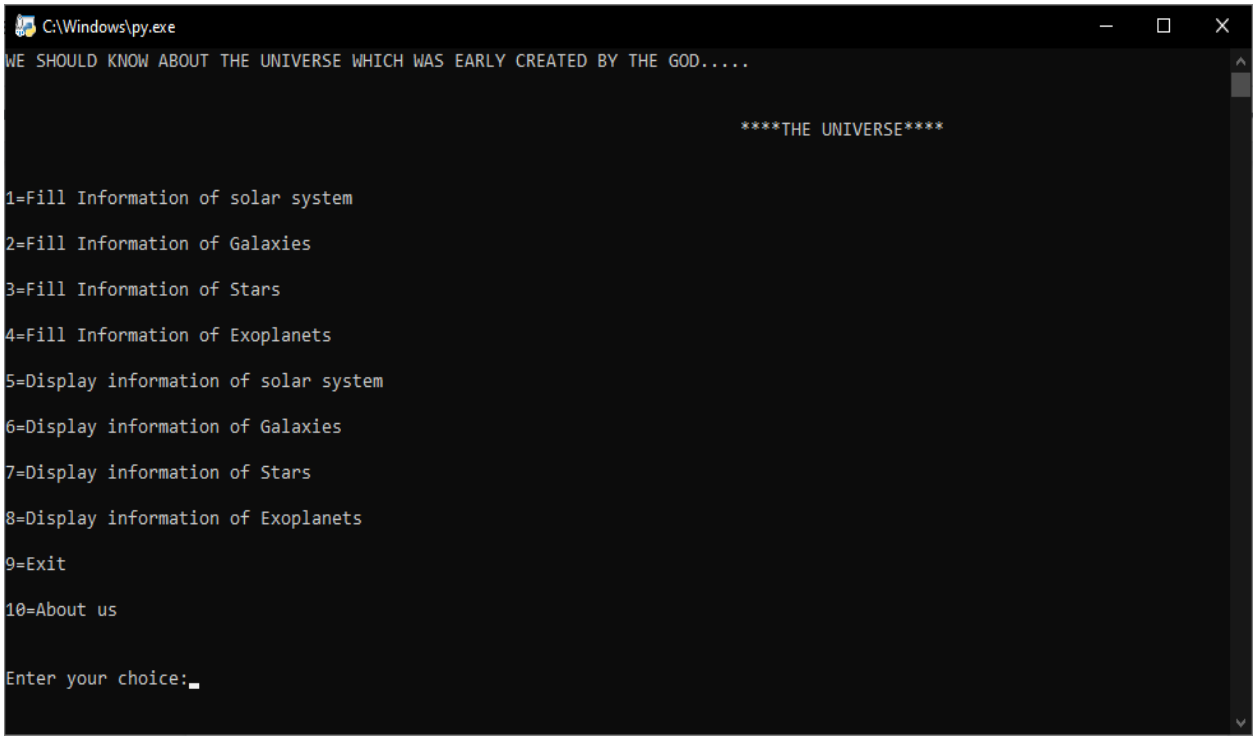
```
records using other options")
                print()

        elif(ch==7):

                sno=str(input("Enter the sno of the Star :"))

                mycursor.execute("select * from Stars where
sno='"+sno+"'")

                found=0

                for a in mycursor:

                        if a!=():

                                print()

                                print(a)

                                print()

                                print()

                                found=1


                if found==0:
```

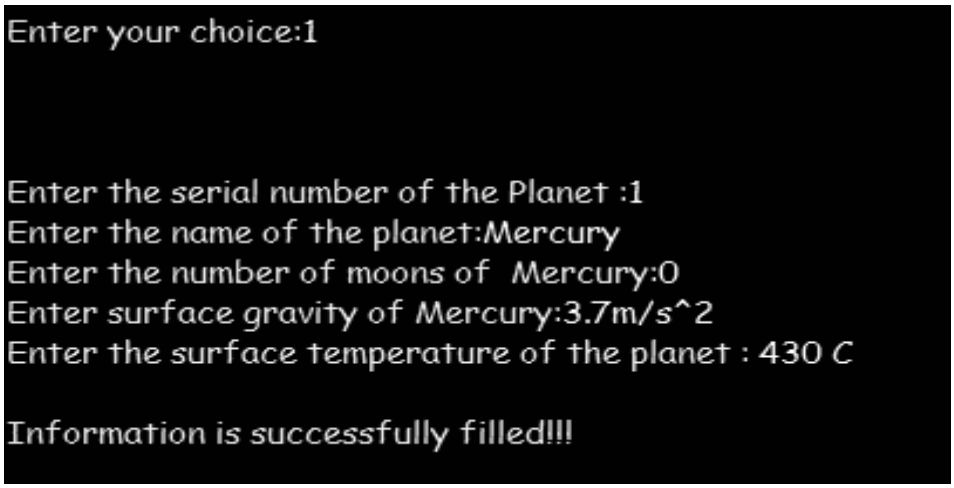
```
                print()
                print("No Record Found....!!  Try entering some
records using other options")

                print()

                print()




        elif(ch==8):

                sno=str(input("Enter the sno of the Exoplanet :"))

                mycursor.execute("select * from Exoplanets where
sno='"+sno+"'")

                found=0

                for o in mycursor:

                        if o!=():

                                print()

                                print(o)
                                print()
```

```
                print()

                found=1


        if found==0:

            print()

            print("No Record Found....!!  Try entering some
records using other options")

            print()

            print()




    elif(ch==9):

        print("          Thanks for Entering and Knowing about
our Universe....!")

        break
```

```
    elif(ch==10):

        print("PROGRAMMED BY:N.Dhanush,S.Kathirvelan,
S.Rohith Krishna ")

        print("IDE's used : Python 3.8,Mysql 8.1")

        print("Under guidenence of: M.Tamilarasi")

        print("Class 12 Computer science")

        print("Batch:2020-2021")

        print(                    "THANK YOU"          )

        print()
```

SCREEN SHOTS





```
Enter your choice:2


Enter the serial number of Galaxy :1
Enter the name of the Galaxy :Milky way Galaxy
enter Milky way Galaxy's official name(like NGC_224)MWG
enter the name of solar system or star inside Milky way Galaxy...:Sun
Information is successfully filled!!!
```

```
Enter your choice:3


Enter the serial number of the Star:1
Enter the name of the Star:Sun
Enter the state of the Sun(red giant,white dwarf,etc) : Red giant
Enter surface gravity of the Sun:274m/s^2
Enter the surface temperature of the Star : 5778 k
Information is successfully filled!!!
```

```
Enter your choice:5

Enter the sno of the planet :1

('1', 'Mercury', '0', '3.7m/s^2', '430 C')
```

```
Enter your choice:6

Enter the sno of the Galaxy :1

('1', 'Milky way Galaxy', 'MWG', 'Sun', 0)
```

```
Enter your choice:7

Enter the sno of the Star :1

('1', 'Sun', 'Red giant', '274m/s^2', '5778 k', 0)
```

```
Enter your choice:8

Enter the sno of the Exoplanet :1

('1', 'Proxima b', '~1.1 g, ~0.95 g', '234 K', 'No', 'Proxima Centauri', 0)
```

```
Enter your choice:10


PROGRAMMED BY: Dhanush N,Kathirvelan S,Rohith Krishna S
IDE's used : Python 3.8,Mysql 8.1
Under guidenence of: M.Tamilarasi
Class 12 Computer science
Batch:2020-2021
THANK YOU
```

```
Enter your choice:6

Enter the sno of the Galaxy :4

No Record Found....!!  Try entering some records using other options
```

```
Enter your choice:9


                Thanks for Entering and Knowing about our Universe .....!
>>>
```

CONCLUSION

This program initially asks the user to enter a number to choose the options in the menu.Then, according to the input given by the user, it will ask to fill the details of Solar system, Galaxies, Stars or Exoplanets.

It also allows you to see the details of Solar systems, Galaxies, Stars or Exoplanets according to the option which you have chosen by entering the serial number and type (i.e Solar system, Galaxies, Stars or Exoplanets) of it.

If the seriel number is not found, it will print the message that **"No Record Found....!! Try entering some records using other options"**. So that you can also enter and view more details about **"Our Universe"**.

BIBLIOGRAPHY

1.https://www.google.com

2.https://en.wikipedia.org

3.https://www.youtube.com

4.Computer Science with python –by Sumita arora