ST. ANSELM'S PINK CITY SR. SEC. SCHOOL

Personal Computer Gaming Benchmark

Made by Pawan Kapoor

INDEX

CERTIFICATE

This is to certify that the Informatics Practices project titled **"Personal Computer Gaming Benchmark"** has been successfully completed by _____ of St. Anselm's Pink City Sr. Sec. School, Jaipur, of **Class XII-B,** board number _____ under the guidance of Ms. Krishna Singh. This project is submitted as partial fulfillment for CBSE AISSCE (All India Senior School Certificate Examination), during the year 2020-2021.

Faculty Signature

(Ms. Krishna Singh)

Acknowledgment

1. To my teachers for helping me to use the program and apply it practically.

2. To my Principal for providing us the atmosphere, computers and useful products on which we can work.

3. To my fellow batch mates for helping me out when in need or in problem regarding usage of programs.

4. To the staff who keeps our equipment's safe i.e. in working condition.

EXISTING SYSTEM

Till now if we have to buy a game we have to check that the game would run on our PC so to do this we have to go through many sites to see that configurations would match.

PROPOSED SYSTEM

System requirement application to find games that can run on user's computer, And to provide user with Game Price, Price of the PC(Based upon the configuration provided by user + other important parts required to build the PC)

Hardware Requirement & Software Requirement

Recommended System Requirements

- ***Processors:Intel® Core™ i5 processor 4300M at 2.60 GHz or 2.59 GHz (1 socket, 2 cores, 2 threads per core), 8 GB of DRAMIntel® Xeon® processor E5-2698 v3 at 2.30 GHz (2 sockets, 16 cores each, 1 thread per core), 64 GB of DRAMIntel® Xeon Phi™ processor 7210 at 1.30 GHz (1 socket, 64 cores, 4 threads per core), 32 GB of DRAM, 16 GB of MCDRAM (flat mode enabled)***
- ***Disk space: 2 to 3 GB***
- ***Operating systems: Windows® 10, macOS*, and Linux****

Minimum System Requirements

- ***Processors: Intel Atom® processor or Intel® Core™ i3 processor***
- ***Disk space: 1 GB***
- ***Operating systems: Windows* 7 or later, macOS, and Linux***
- ***Python* versions: 2.7.X, 3.6.X***

CODING (Python)

```
def main():
    c = 'y'
    while c == 'y':
        loginwindow = input("TO Login as USER (Enter U)\nTO
Login as ADMIN (Enter A) \n: ").upper()
        print()
        if loginwindow == "A":
            adminwindow()
        elif loginwindow == "U":
            program()
        else:
            print("Invalid Input")
            exit()
    else:
        print('wrong input')


def program():
    cont = "y"
    if cont == "y":
        def pcgaming():
            import pandas as pd
            import mysql.connector
            pcgbm = mysql.connector.connect(host="localhost",
user="root", passwd='abc@123', database="pcgbm")
            print("Can I Run It ?")
            print(
                "System requirement application to find games
that can run on your computer,\nAnd to provide you with Game
Price, "
                "Price of the PC(Based upon the configuration
provided by you + other important parts required to build the
PC)\n"
                "What games your laptop/PC can run - from our
list of over 70 PC games. \n")
            print("Tell us about your PC specification from the
following option's\n ")
            graphics = (input("Choose from the folLowing
GRAPHICS CARD\n"
```

```
                                "   Geforce GTX 1050 Ti (ENTER
g1)\n "
                                "  Geforce GTX 1060    (ENTER
g2)\n "
                                "  Geforce GTX 1070 Ti (ENTER
g3)\n "
                                " :  ")).lower()
            print()
            g1 = "Geforce GTX 1050 Ti"
            g2 = "Geforce GTX 1060"
            g3 = "Geforce GTX 1070 Ti"
            if graphics == "g1":
                g = g1
            elif graphics == "g2":
                g = g2
            elif graphics == "g3":
                g = g3
            else:
                return "ERROR"
            processor = (input("Choose from the folLowing
PROCESSOR\n"
                               "  Intel core i3 (ENTER p1)\n "
                               " Intel core i5 (ENTER p2)\n "
                               " Intel core i7 (ENTER p3)\n "
                               " :  ")).lower()
            print()
            p1 = "i3"
            p2 = "i5"
            p3 = "i7"
            if processor == "p1":
                p = p1
            elif processor == "p2":
                p = p2
            elif processor == "p3":
                p = p3
            else:
                return "ERROR"
            memory = (input("Choose from the folLowing
MEMORY\n"
                            " 4GB RAM (ENTER r1)\n"
                            " 8GB RAM (ENTER r2)\n"
                            "16GB RAM (ENTER r3)\n"
                            " :  ")).lower()
            r1 = "4GB"
```

```
            r2 = "8GB"
            r3 = "16GB"
            if memory == "r1":
                r = r1
            elif memory == "r2":
                r = r2
            elif memory == "r3":
                r = r3
            else:
                return "ERROR"
            cursor = pcgbm.cursor()
            cursor.execute(
                f'select
G_name,storage_GB_,price_$_,ReviewScore_outof100,PCprice_Rs
from pcgbm where processor="{p}" and graphics="{g}" and
memory="{r}"')
            myresult = cursor.fetchall()
            data = pd.DataFrame(myresult, columns=['Game Name',
'Storage(GB)', 'Price($)', 'ReviewScore(out of 100)',

'PCprice(Rs)'])
            pd.set_option('display.max_rows' and
'display.max_columns', None)
            for row in range(len(data)):
                print()
                print(data.loc[row])
                print()

            def graph():
                def again():
                    again1 = input("\nDO YOU WANT TO SEE MORE
GRAPHS (ENTER Y) : ").upper()
                    if again1 == 'Y':
                        graph()

                import matplotlib.pyplot as mat

                def mypieU():
                    label1 = ['Geforce GTX 1050 Ti', 'Geforce
GTX 1060', 'Geforce GTX 1070 Ti']
                    sizes = [23, 27, 21]
                    colors1 = ['yellowgreen', 'lightskyblue',
'magenta']
```

```
                    mat.title("Games in PCGBM for various
Graphics card")
                    mat.pie(sizes, explode=None, labels=label1,
colors=colors1, shadow=True, autopct='%1.1f%%',
                            startangle=140)
                    mat.axis('equal')
                    a = mat.show()
                    print(a)

                    label1 = ['i3', 'i5', 'i7']
                    sizes = [25, 22, 24]
                    colors1 = ['red', 'blue', 'magenta']
                    mat.title("Games in PCGBM for various
Processors")
                    mat.pie(sizes, explode=None, labels=label1,
colors=colors1, shadow=True, autopct='%1.1f%%',
                            startangle=140)
                    mat.axis('equal')
                    b = mat.show()
                    print(b)

                    label1 = ['4GB', '8GB', '16GB']
                    sizes = [24, 19, 28]
                    colors1 = ['lightskyblue', 'yellowgreen',
'brown']
                    mat.title("Games in PCGBM for various RAM")
                    mat.pie(sizes, explode=None, labels=label1,
colors=colors1, shadow=True, autopct='%1.1f%%',
                            startangle=140)
                    mat.axis('equal')
                    c = mat.show()
                    print(c)

                    label1 = ['Free', '1 to 20', '$21 to $40',
'$41 to $60', '$61 to $100']
                    sizes = [14, 22, 20, 12, 3]
                    colors1 = ['red', 'blue', 'magenta',
'yellowgreen', 'brown']
                    mat.title("Games in PCGBM for various
prices($)\n")
                    mat.pie(sizes, explode=None, labels=label1,
colors=colors1, shadow=True, autopct='%1.1f%%',
                            startangle=140)
                    mat.axis('equal')
```

```
                    d = mat.show()
                    print(d)

                    label1 = ['40 to 60', '61 to 80', '81 to
100']
                    sizes = [3, 19, 48]
                    colors1 = ['red', 'blue', 'cyan', ]
                    mat.title("Games in PCGBM for various
Review Score out of 100\n")
                    mat.pie(sizes, explode=None, labels=label1,
colors=colors1, shadow=True, autopct='%1.1f%%',
                            startangle=140)
                    mat.axis('equal')
                    e = mat.show()
                    print(e)

                def barU():
                    import numpy as np
                    import matplotlib.pyplot as mat15
                    objects = ('Geforce GTX 1050 Ti', 'Geforce
GTX 1060', 'Geforce GTX 1070 Ti')
                    y_pos = np.arange(len(objects))
                    types = (23, 27, 21)
                    mat15.bar(y_pos, types, align='center',
color='yellowgreen')
                    mat15.xticks(y_pos, objects)
                    mat15.ylabel('Number Of Games')
                    mat15.title('Number Of Games According to
Graphics Card')
                    mat15.show()

                    import numpy as np
                    import matplotlib.pyplot as mat14
                    objects = ('i3', 'i5', 'i7')
                    y_pos = np.arange(len(objects))
                    types = (25, 22, 24)
                    mat14.bar(y_pos, types, align='center',
color='lightgreen')
                    mat14.xticks(y_pos, objects)
                    mat14.ylabel('Number Of Games')
                    mat14.title('Number Of Games According to
processor')
                    mat14.show()
```

```
                    import numpy as np
                    import matplotlib.pyplot as mat13
                    objects = ('4GB', '8GB', '16GB')
                    y_pos = np.arange(len(objects))
                    types = (24, 19, 28)
                    mat13.bar(y_pos, types, align='center',
color='lightskyblue')
                    mat13.xticks(y_pos, objects)
                    mat13.ylabel('Number Of Games')
                    mat13.title('Number Of Games According to
RAM')
                    mat13.show()

                    import numpy as np
                    import matplotlib.pyplot as mat12
                    objects = ('Free', '1 to 20', '$21 to $40',
'$41 to $60', '$61 to $100')
                    y_pos = np.arange(len(objects))
                    types = (14, 22, 20, 12, 3)
                    mat12.bar(y_pos, types, align='center',
color='brown')
                    mat12.xticks(y_pos, objects)
                    mat12.ylabel('Number Of Games')
                    mat12.title('Number Of Games According to
Various prices($)')
                    mat12.show()

                    import numpy as np
                    import matplotlib.pyplot as mat11
                    objects = ('40 to 60', '61 to 80', '81 to
100')
                    y_pos = np.arange(len(objects))
                    types = (3, 19, 48)
                    mat11.bar(y_pos, types, align='center',
color='magenta')
                    mat11.xticks(y_pos, objects)
                    mat11.ylabel('Number Of Games')
                    mat11.title('Number Of Games According to
Various review score(out of 100)')
                    mat11.show()

                def lineU():
                    label1 = ['Geforce GTX 1050 Ti', 'Geforce
GTX 1060', 'Geforce GTX 1070 Ti']
```

```
                    sizes = [23, 27, 21]
                    import matplotlib.pyplot as mat10
                    mat10.plot(label1, sizes)
                    mat10.title("Games in PCGBM for various
Graphics card")
                    mat10.xlabel('Graphics card')
                    mat10.ylabel('No. Of Games')
                    mat10.show()

                    label1 = ['i3', 'i5', 'i7']
                    sizes = [25, 22, 24]
                    import matplotlib.pyplot as mat9
                    mat9.plot(label1, sizes)
                    mat9.title("Games in PCGBM for various
Processors")
                    mat9.xlabel('Processors')
                    mat9.ylabel('No. Of Games')
                    mat9.show()

                    label1 = ['4GB', '8GB', '16GB']
                    sizes = [24, 19, 28]
                    import matplotlib.pyplot as mat8
                    mat8.plot(label1, sizes)
                    mat8.title("Games in PCGBM for various
RAM")
                    mat8.xlabel('Ram')
                    mat8.ylabel('No. Of Games')
                    mat8.show()

                    label1 = ['Free', '1 to 20', '$21 to $40',
'$41 to $60', '$61 to $100']
                    sizes = [14, 22, 20, 12, 3]
                    import matplotlib.pyplot as mat7
                    mat7.plot(label1, sizes)
                    mat7.title("Games in PCGBM for various
prices($)\n")
                    mat7.xlabel('Prices($)')
                    mat7.ylabel('No. Of Games')
                    mat7.show()

                    label1 = ['40 to 60', '61 to 80', '81 to
100']
                    sizes = [3, 19, 48]
                    import matplotlib.pyplot as mat6
```

```
                    mat6.plot(label1, sizes)
                    mat6.title("Games in PCGBM for various
Review Score out of 100\n")
                    mat6.xlabel('Review score')
                    mat6.ylabel('No. Of Games')
                    mat6.show()

                def scatterU():

                    import matplotlib.pyplot as mat5
                    label1 = ['Geforce GTX 1050 Ti', 'Geforce
GTX 1060', 'Geforce GTX 1070 Ti']
                    sizes = [23, 27, 21]
                    mat5.scatter(label1, sizes, c="blue")
                    mat5.show()

                    import matplotlib.pyplot as mat4
                    label1 = ['i3', 'i5', 'i7']
                    sizes = [25, 22, 24]
                    mat4.scatter(label1, sizes, c="green")
                    mat4.show()

                    import matplotlib.pyplot as mat3
                    label1 = ['4GB', '8GB', '16GB']
                    sizes = [24, 19, 28]
                    mat3.scatter(label1, sizes, c="green")
                    mat3.show()

                    import matplotlib.pyplot as mat2
                    label1 = ['Free', '1 to 20', '$21 to $40',
'$41 to $60', '$61 to $100']
                    sizes = [14, 22, 20, 12, 3]
                    mat2.scatter(label1, sizes, c="green")
                    mat2.show()

                    import matplotlib.pyplot as mat1
                    label1 = ['40 to 60', '61 to 80', '81 to
100']
                    sizes = [3, 19, 48]
                    mat1.scatter(label1, sizes, c="green")
                    mat1.show()

                print('\nSelect the graph you want to see')
                print('1.Pie chart')
```

```
                print('2.Bar graph')
                print('3.Line Graph')
                print('4.Scatter plot')
                choice = int(input('Enter choice of graphs :
'))
                if choice == 1:
                    mypieU()
                    again()
                elif choice == 2:
                    barU()
                    again()
                elif choice == 3:
                    lineU()
                    again()
                elif choice == 4:
                    scatterU()
                    again()
                else:
                    print("\nWRONG INPUT \nCHOOSE AGAIN")
                    graph()

            forgraphs1 = input("\nIF YOU WANT TO SEE GRAPHS
(ENTER Y) : ").lower()
            if forgraphs1 == "y":
                graph()

        print(pcgaming())
    rerun = input("\nDo you want run the program again \nIf yes
then type y \nElse enter anything\n: ").lower()
    print()
    if rerun == 'y':
        main()
        print()
    else:
        print("I wish you have a Good Day!!")
        exit()


def adminwindow():
    loginid = "pcgbm"
    password = "****"
    lid = input("Enter LoginID : ")
    passwd = input("Enter Password : ")
```

```
if lid == loginid and passwd == password:
    print("Access Granted!!\n")
    print("1. Add Record")
    print("2. Delete record")
    print("3. Show records")
    print("4. Update records")
    print("5. Graphs")
    print("6. Exit")
    print()
    choice = int(input("Enter choice : "))
    if choice == 1:
        adddata()
    elif choice == 2:
        deldata()
    elif choice == 3:
        fetchdata()
    elif choice == 4:
        print("What do you want to Update ?\n")
        print("1. Game name")
        print("2. Processor")
        print("3. Memory")
        print("4. Storage")
        print("5. Price")
        print("6. Review Score")
        print("7. Graphics")
        print("8. PC price")
        choice = int(input("Enter Choice : "))
        if choice == 1:
            updateG_name()
        elif choice == 2:
            updateprocessor()
        elif choice == 3:
            updatememory()
        elif choice == 4:
            updatestorage()
        elif choice == 5:
            updateprice()
        elif choice == 6:
            updateReviewScore()
        elif choice == 7:
            updategraphics()
        elif choice == 8:
            updatePCprice()
        else:
```

```
                print("wrong input")
        elif choice == 5:
            graphs()
            print()
        elif choice == 6:
            print("Exiting")
            exit()

        else:
            print("wrong input")
    else:
        print("Exiting")
        exit()


def adddata():
    import mysql.connector
    pcgbm = mysql.connector.connect(host="localhost",
user="root", passwd='abc@123', database="pcgbm")
    g = str(input("game name :  "))
    p = str(input("processor from Intel core i3, Intel core i5
and Intel core i7 : "))
    m = str(input("memory from 4GB, 8GB and 16GB : "))
    gr = str(input("graphics from Geforce GTX 1050 Ti, Geforce
GTX 1060 and Geforce GTX 1070 Ti : "))
    s = int(input("storage_GB_ : "))
    pr = int(input("price_$_ : "))
    pl = str(input("platform : ")).upper()
    r = str(input("ReviewScore_outof100 : "))
    pc = int(input("PCprice_Rs : "))
    cursor = pcgbm.cursor()
    cursor.execute(f'insert into pcgbm
values("{g}","{p}","{m}","{gr}","{s}","{pr}","{pl}","{r}","{pc
}");')
    pcgbm.commit()
    print("records added")

    r1 = input("Do you want to ADD more records : ")
    if r1 == "y":
        adddata()

    print()
    ad1 = input("Do you want to return to Admin Window : ")
    if ad1 == "y":
```

```
        adminwindow()
    else:
        exit()


def deldata():
    import mysql.connector
    pcgbm = mysql.connector.connect(host="localhost",
user="root", passwd='abc@123', database="pcgbm")
    g = str(input("game name :  "))
    cursor = pcgbm.cursor()
    cursor.execute(f'delete from pcgbm where G_name="{g}"')
    pcgbm.commit()
    print("records deleted")
    r2 = input("Do you want to DELETE more records : ")
    if r2 == "y":
        deldata()

    print()
    ad2 = input("Do you want to return to Admin Window : ")
    if ad2 == "y":
        adminwindow()
    else:
        exit()


def fetchdata():
    import mysql.connector
    from mysql.connector import Error

    try:
        pcgbm = mysql.connector.connect(host='localhost',
                                        database='pcgbm',
                                        user='root',
                                        password='abc@123')

        sql_select_query = "select * from pcgbm"
        cursor = pcgbm.cursor()
        cursor.execute(sql_select_query)
        records = cursor.fetchall()
        print("Total number of rows in database is : ",
cursor.rowcount)

        print("\nPrinting each record")
```

```
        for row in records:
            print("G_name = ", row[0], )
            print("processor = ", row[1])
            print("memory = ", row[2])
            print("graphics  = ", row[3])
            print("storage_GB_ = ", row[4])
            print("price_$_ = ", row[5])
            print("platform = ", row[6])
            print("ReviewScore_outof100 = ", row[7])
            print("PCprice_Rs = ", row[8], "\n")
    except Error as e:
        print("Error reading data from MySQL table", e)

    print()
    ad13 = input("Do you want to return to Admin Window : ")
    if ad13 == "y":
        adminwindow()
    else:
        exit()


def updateG_name():
    import mysql.connector
    pcgbm = mysql.connector.connect(host="localhost",
user="root", passwd='abc@123', database="pcgbm")
    g = str(input("Old game name :  "))
    g1 = str(input("New Game Name : "))
    cursor = pcgbm.cursor()
    cursor.execute(f'update pcgbm set G_name="{g1}" where
G_name="{g}"')
    pcgbm.commit()
    print("records updated")
    print()
    r3 = input("Do you want to UPDATE more Games name : ")
    if r3 == "y":
        updateG_name()

    print()
    ad23 = input("Do you want to return to Admin Window : ")
    if ad23 == "y":
        adminwindow()
    else:
        exit()
```

```
def updateprocessor():
    import mysql.connector
    pcgbm = mysql.connector.connect(host="localhost",
user="root", passwd='abc@123', database="pcgbm")
    g = str(input("game name :  "))
    p1 = str(input("New processor:"))
    cursor = pcgbm.cursor()
    cursor.execute(f'update pcgbm set processor="{p1}" where
G_name="{g}"')
    pcgbm.commit()
    print("records updated")

    r4 = input("Do you want to UPDATE processor of more games :
")
    if r4 == "y":
        updateprocessor()

    print()
    a1d2 = input("Do you want to return to Admin Window : ")
    if a1d2 == "y":
        adminwindow()
    else:
        exit()


def updategraphics():
    import mysql.connector
    pcgbm = mysql.connector.connect(host="localhost",
user="root", passwd='abc@123', database="pcgbm")
    g = str(input("game name :  "))
    gr1 = str(input("New graphics:"))
    cursor = pcgbm.cursor()
    cursor.execute(f'update pcgbm set graphics="{gr1}" where
G_name="{g}"')
    pcgbm.commit()
    print("records updated")

    r5 = input("Do you want to UPDATE Graphics of more Games :
")
    if r5 == "y":
        updategraphics()

    print()
```

```
    a2d2 = input("Do you want to return to Admin Window : ")
    if a2d2 == "y":
        adminwindow()
    else:
        exit()


def updatememory():
    import mysql.connector
    pcgbm = mysql.connector.connect(host="localhost",
user="root", passwd='abc@123', database="pcgbm")
    g = str(input("game name :  "))
    m1 = str(input("New memory:"))
    cursor = pcgbm.cursor()
    cursor.execute(f'update pcgbm set memory="{m1}" where
G_name="{g}"')
    pcgbm.commit()
    print("records updated")

    r6 = input("Do you want to UPDATE Memory of more Games : ")
    if r6 == "y":
        updatememory()

    print()
    a3d2 = input("Do you want to return to Admin Window : ")
    if a3d2 == "y":
        adminwindow()
    else:
        exit()


def updatestorage():
    import mysql.connector
    pcgbm = mysql.connector.connect(host="localhost",
user="root", passwd='abc@123', database="pcgbm")
    g = str(input("game name :  "))
    s1 = str(input("New storage:"))
    cursor = pcgbm.cursor()
    cursor.execute(f'update pcgbm set storage_GB_="{s1}" where
G_name="{g}"')
    pcgbm.commit()
    print("records updated")
```

```
    r7 = input("Do you want to UPDATE Storage of more Games :
")
    if r7 == "y":
        updatestorage()

    print()
    ad24 = input("Do you want to return to Admin Window : ")
    if ad24 == "y":
        adminwindow()
    else:
        exit()


def updateprice():
    import mysql.connector
    pcgbm = mysql.connector.connect(host="localhost",
user="root", passwd='abc@123', database="pcgbm")
    g = str(input("game name :  "))
    pr1 = str(input("New price:"))
    cursor = pcgbm.cursor()
    cursor.execute(f'update pcgbm set price_$_="{pr1}" where
G_name="{g}"')
    pcgbm.commit()
    print("records updated")

    r8 = input("Do you want to UPDATE Price of more Games : ")
    if r8 == "y":
        updateprice()

    print()
    ad5 = input("Do you want to return to Admin Window : ")
    if ad5 == "y":
        adminwindow()
    else:
        exit()


def updateReviewScore():
    import mysql.connector
    pcgbm = mysql.connector.connect(host="localhost",
user="root", passwd='abc@123', database="pcgbm")
    g = str(input("game name :  "))
    r1 = str(input("New ReviewScore:"))
    cursor = pcgbm.cursor()
```

```
    cursor.execute(f'update pcgbm set
ReviewScore_outof100="{r1}" where G_name="{g}"')
    pcgbm.commit()
    print("records updated")

    r9 = input("Do you want to UPDATE ReviewScore of more Games
: ")
    if r9 == "y":
        updateReviewScore()

    print()
    ad6 = input("Do you want to return to Admin Window : ")
    if ad6 == "y":
        adminwindow()
    else:
        exit()


def updatePCprice():
    import mysql.connector
    pcgbm = mysql.connector.connect(host="localhost",
user="root", passwd='abc@123', database="pcgbm")
    g = str(input("game name :  "))
    pc1 = str(input("New PCprice:"))
    cursor = pcgbm.cursor()
    cursor.execute(f'update pcgbm set PCprice_Rs="{pc1}" where
G_name="{g}"')
    pcgbm.commit()
    print("records updated")

    r10 = input("Do you want to UPDATE PCprice of more Games :
")
    if r10 == "y":
        updatePCprice()

    print()
    ad7 = input("Do you want to return to Admin Window : ")
    if ad7 == "y":
        adminwindow()
    else:
        exit()


def graphs():
```

```
    def again10():
        again2 = input("\nDO YOU WANT TO SEE MORE GRAPHS (ENTER
Y) : ").upper()
        if again2 == 'Y':
            graphs()

        print()
        ad9 = input("Do you want to return to Admin Window : ")
        if ad9 == "y":
            adminwindow()
        else:
            exit()

    import matplotlib.pyplot as mat

    def mypie():
        label1 = ['Geforce GTX 1050 Ti', 'Geforce GTX 1060',
'Geforce GTX 1070 Ti']
        sizes = [23, 27, 21]
        colors1 = ['yellowgreen', 'lightskyblue', 'magenta']
        mat.title("Games in PCGBM for various Graphics card")
        mat.pie(sizes, explode=None, labels=label1,
colors=colors1, shadow=True, autopct='%1.1f%%',
                startangle=140)
        mat.axis('equal')
        a = mat.show()
        print(a)

        label1 = ['i3', 'i5', 'i7']
        sizes = [25, 22, 24]
        colors1 = ['red', 'blue', 'magenta']
        mat.title("Games in PCGBM for various Processors")
        mat.pie(sizes, explode=None, labels=label1,
colors=colors1, shadow=True, autopct='%1.1f%%',
                startangle=140)
        mat.axis('equal')
        b = mat.show()
        print(b)

        label1 = ['4GB', '8GB', '16GB']
        sizes = [24, 19, 28]
        colors1 = ['lightskyblue', 'yellowgreen', 'brown']
        mat.title("Games in PCGBM for various RAM")
```

```
        mat.pie(sizes, explode=None, labels=label1,
colors=colors1, shadow=True, autopct='%1.1f%%',
                startangle=140)
        mat.axis('equal')
        c = mat.show()
        print(c)

        label1 = ['Free', '1 to 20', '$21 to $40', '$41 to
$60', '$61 to $100']
        sizes = [14, 22, 20, 12, 3]
        colors1 = ['red', 'blue', 'magenta', 'yellowgreen',
'brown']
        mat.title("Games in PCGBM for various prices($)\n")
        mat.pie(sizes, explode=None, labels=label1,
colors=colors1, shadow=True, autopct='%1.1f%%',
                startangle=140)
        mat.axis('equal')
        d = mat.show()
        print(d)

        label1 = ['40 to 60', '61 to 80', '81 to 100']
        sizes = [3, 19, 48]
        colors1 = ['red', 'blue', 'cyan', ]
        mat.title("Games in PCGBM for various Review Score out
of 100\n")
        mat.pie(sizes, explode=None, labels=label1,
colors=colors1, shadow=True, autopct='%1.1f%%',
                startangle=140)
        mat.axis('equal')
        d = mat.show()
        print(d)

    def bar():
        import numpy as np
        import matplotlib.pyplot as mat15
        objects = ('Geforce GTX 1050 Ti', 'Geforce GTX 1060',
'Geforce GTX 1070 Ti')
        y_pos = np.arange(len(objects))
        types = (23, 27, 21)
        mat15.bar(y_pos, types, align='center',
color='yellowgreen')
        mat15.xticks(y_pos, objects)
        mat15.ylabel('Number Of Games')
```

```
        mat15.title('Number Of Games According to Graphics
Card')
        mat15.show()

        import numpy as np
        import matplotlib.pyplot as mat14
        objects = ('i3', 'i5', 'i7')
        y_pos = np.arange(len(objects))
        types = (25, 22, 24)
        mat14.bar(y_pos, types, align='center',
color='lightgreen')
        mat14.xticks(y_pos, objects)
        mat14.ylabel('Number Of Games')
        mat14.title('Number Of Games According to processor')
        mat14.show()

        import numpy as np
        import matplotlib.pyplot as mat13
        objects = ('4GB', '8GB', '16GB')
        y_pos = np.arange(len(objects))
        types = (24, 19, 28)
        mat13.bar(y_pos, types, align='center',
color='lightskyblue')
        mat13.xticks(y_pos, objects)
        mat13.ylabel('Number Of Games')
        mat13.title('Number Of Games According to RAM')
        mat13.show()

        import numpy as np
        import matplotlib.pyplot as mat12
        objects = ('Free', '1 to 20', '$21 to $40', '$41 to
$60', '$61 to $100')
        y_pos = np.arange(len(objects))
        types = (14, 22, 20, 12, 3)
        mat12.bar(y_pos, types, align='center', color='brown')
        mat12.xticks(y_pos, objects)
        mat12.ylabel('Number Of Games')
        mat12.title('Number Of Games According to Various
prices($)')
        mat12.show()

        import numpy as np
        import matplotlib.pyplot as mat11
        objects = ('40 to 60', '61 to 80', '81 to 100')
```

```
        y_pos = np.arange(len(objects))
        types = (3, 19, 48)
        mat11.bar(y_pos, types, align='center',
color='magenta')
        mat11.xticks(y_pos, objects)
        mat11.ylabel('Number Of Games')
        mat11.title('Number Of Games According to Various
review score(out of 100)')
        mat11.show()

    def line():
        label1 = ['Geforce GTX 1050 Ti', 'Geforce GTX 1060',
'Geforce GTX 1070 Ti']
        sizes = [23, 27, 21]
        import matplotlib.pyplot as mat10
        mat10.plot(label1, sizes)
        mat10.title("Games in PCGBM for various Graphics card")
        mat10.xlabel('Graphics card')
        mat10.ylabel('No. Of Games')
        mat10.show()

        label1 = ['i3', 'i5', 'i7']
        sizes = [25, 22, 24]
        import matplotlib.pyplot as mat9
        mat9.plot(label1, sizes)
        mat9.title("Games in PCGBM for various Processors")
        mat9.xlabel('Processors')
        mat9.ylabel('No. Of Games')
        mat9.show()

        label1 = ['4GB', '8GB', '16GB']
        sizes = [24, 19, 28]
        import matplotlib.pyplot as mat8
        mat8.plot(label1, sizes)
        mat8.title("Games in PCGBM for various RAM")
        mat8.xlabel('Ram')
        mat8.ylabel('No. Of Games')
        mat8.show()

        label1 = ['Free', '1 to 20', '$21 to $40', '$41 to
$60', '$61 to $100']
        sizes = [14, 22, 20, 12, 3]
        import matplotlib.pyplot as mat7
        mat7.plot(label1, sizes)
```

```
        mat7.title("Games in PCGBM for various prices($)\n")
        mat7.xlabel('Prices($)')
        mat7.ylabel('No. Of Games')
        mat7.show()

        label1 = ['40 to 60', '61 to 80', '81 to 100']
        sizes = [3, 19, 48]
        import matplotlib.pyplot as mat6
        mat6.plot(label1, sizes)
        mat6.title("Games in PCGBM for various Review Score out
of 100\n")
        mat6.xlabel('Review score')
        mat6.ylabel('No. Of Games')
        mat6.show()

    def scatter():

        import matplotlib.pyplot as mat5
        label1 = ['Geforce GTX 1050 Ti', 'Geforce GTX 1060',
'Geforce GTX 1070 Ti']
        sizes = [23, 27, 21]
        mat5.scatter(label1, sizes, c="blue")
        mat5.show()

        import matplotlib.pyplot as mat4
        label1 = ['i3', 'i5', 'i7']
        sizes = [25, 22, 24]
        mat4.scatter(label1, sizes, c="green")
        mat4.show()

        import matplotlib.pyplot as mat3
        label1 = ['4GB', '8GB', '16GB']
        sizes = [24, 19, 28]
        mat3.scatter(label1, sizes, c="green")
        mat3.show()

        import matplotlib.pyplot as mat2
        label1 = ['Free', '1 to 20', '$21 to $40', '$41 to
$60', '$61 to $100']
        sizes = [14, 22, 20, 12, 3]
        mat2.scatter(label1, sizes, c="green")
        mat2.show()

        import matplotlib.pyplot as mat1
```

```
        label1 = ['40 to 60', '61 to 80', '81 to 100']
        sizes = [3, 19, 48]
        mat1.scatter(label1, sizes, c="green")
        mat1.show()

    print('\nSelect the graph you want to see')
    print('1.Pie chart')
    print('2.Bar graph')
    print('3.Line Graph')
    print('4.Scatter plot')
    choice = int(input('Enter choice of graphs : '))
    if choice == 1:
        mypie()
        again10()
    elif choice == 2:
        bar()
        again10()
    elif choice == 3:
        line()
        again10()
    elif choice == 4:
        scatter()
        again10()
    else:
        print("\nWRONG INPUT \nCHOOSE AGAIN")
        graphs()


main()
```

CODING (MySQL)

```
create database pcgbm;
use pcgbm;
create table pcgbm(G_name varchar(50) primary key,processor
varchar(50),memory varchar(50),graphics
varchar(50),storage_GB_ int(5),price_$_ int(6),platform
varchar(50),ReviewScore_outof100 int(6),PCprice_Rs int);

insert into pcgbm values("Grand Theft Auto V (GTA 5)",
"i7","4GB","Geforce GTX
1060","72","15","WINDOWS","96","128000");
insert into pcgbm values("Destiny 2", "i7","16GB","Geforce GTX
1060","105","0","WINDOWS","83","141000");
insert into pcgbm values("Destiny 2: Beyond Light",
"i7","8GB","Geforce GTX
1060","105","70","WINDOWS","83","131000");
insert into pcgbm values("World of Warcraft", "i7","8GB","Geforce
GTX 1050 Ti","5","15","WINDOWS","93","127000");
insert into pcgbm values("Portal 2", "i7","4GB","Geforce GTX
1070 Ti","10","0","WINDOWS","95","144000");
insert into pcgbm values("Mount and Blade", "i7","8GB","Geforce
GTX 1070 Ti","16","0","WINDOWS","78","147000");
insert into pcgbm values("Monster Hunter:World",
"i7","8GB","Geforce GTX 1070
Ti","20","21","WINDOWS","88","147000");
insert into pcgbm values("Assassins Creed", "i7","8GB","Geforce
GTX 1060","50","13","WINDOWS","80","131000");
insert into pcgbm values('The red dead redemption 2', 'i7', '16GB',
'Geforce GTX 1060', '150', '30', 'WINDOWS',"94","141000");
```

```
insert into pcgbm values('League of Legends', 'i7', '16GB',
'Geforce GTX 1060', '12', '16', 'WINDOWS',"76","141000");
insert into pcgbm values('Fifa 20', 'i7', '8GB', 'Geforce GTX 1060',
'50', '21', 'WINDOWS',"20","131000");
insert into pcgbm values('CRUCIBLE', 'i7', '8GB', 'Geforce GTX
1060', '15', '16', 'WINDOWS',"60","131000");
insert into pcgbm values("STAR WARS Jedi: Fallen Order",
"i5","8GB","Geforce GTX 1070
Ti","55","35","WINDOWS","90","119000");
insert into pcgbm values('GTA IV', 'i5', '16GB', 'Geforce GTX 1050
Ti', '16', '11', 'WINDOWS',"90","109000");
insert into pcgbm values('NBA 2K20', 'i5', '8GB', 'Geforce GTX
1050 Ti', '80', '13', 'WINDOWS',"79","99000");
insert into pcgbm values("iRacing", "i5","8GB","Geforce GTX
1060","6","0","WINDOWS","79","103000");
insert into pcgbm values("DOOM Eternal", "i5","8GB","Geforce
GTX 1060","50","31","WINDOWS","90","103000");
insert into pcgbm values("The Elder Scrolls V: Skyrim",
"i5","4GB","Geforce GTX
1060","6","16","WINDOWS","94","100000");
insert into pcgbm values("Divinity", "i5","4GB","Geforce GTX
1060","16","0","WINDOWS","94","100000");
insert into pcgbm values('Valorant', 'i3', '8GB', 'Geforce GTX 1070
Ti', '120', '0', 'WINDOWS',"81","114000");
insert into pcgbm values('The Witcher 3', 'i3', '8GB', 'Geforce GTX
1070 Ti', '55', '40', 'WINDOWS',"93","114000");
insert into pcgbm values('MINECRAFT', 'i3', '8GB', 'Geforce GTX
1070 Ti', '4', '0', 'WINDOWS',"93","114000");
insert into pcgbm values('Pubg Lite', 'i3', '4GB', 'Geforce GTX
1050 Ti', '4', '0', 'WINDOWS',"86","91000");
```

```
insert into pcgbm values('Counter Strike:Global Offensive', 'i3',
'4GB', 'Geforce GTX 1050 Ti', '15', '0', 'WINDOWS',"83","91000");
insert into pcgbm values("Call of Duty: Black Ops III",
"i3","4GB","Geforce GTX 1050
Ti","100","36","WINDOWS","73","91000");
insert into pcgbm values("Mass Effect 2", "i3","4GB","Geforce
GTX 1070 Ti","14","4","WINDOWS","94","111000");
insert into pcgbm values("Black Desert", "i3","4GB","Geforce GTX
1070 Ti","15","0","WINDOWS","73","111000");
insert into pcgbm values("FIFA 19", "i3","8GB","Geforce GTX
1050 Ti","50","40","WINDOWS","81","94000");
insert into pcgbm values("Fortnite", "i3","8GB","Geforce GTX
1050 Ti","15","0","WINDOWS","81","94000");
insert into pcgbm values('Age Of Empires II', 'i5', '4GB', 'Geforce
GTX 1050 Ti', '30', '15', 'WINDOWS',"81","96000");
insert into pcgbm values('The Borderlands 2', 'i5', '4GB', 'Geforce
GTX 1050 Ti', '20', '26', 'WINDOWS',"90","96000");
insert into pcgbm values('Divinity:Original', 'i5', '4GB', 'Geforce
GTX 1050 Ti', '10', '0', 'WINDOWS',"94","96000");
insert into pcgbm values("GTA:Vice City", "i5","4GB","Geforce
GTX 1050 Ti","10","3","WINDOWS","94","96000");
insert into pcgbm values("FINAL FANTASY XIV Online",
"i5","4GB","Geforce GTX 1050
Ti","60","15","WINDOWS","83","96000");
insert into pcgbm values("Football Manager 2020",
"i5","4GB","Geforce GTX 1050
Ti","50","30","WINDOWS","87","96000");
insert into pcgbm values('Apex', 'i7', '16GB', 'Geforce GTX 1060',
'30', '3', 'WINDOWS',"88","141000");
```

```
insert into pcgbm values('Warzone', 'i7', '16GB', 'Geforce GTX
1060', '197', '61', 'WINDOWS',"79","141000");
insert into pcgbm values('Star Citizen 2', 'i7', '16GB', 'Geforce
GTX 1060', '40', '10', 'WINDOWS',"42","141000");
insert into pcgbm values("Sid Meier’s Civilization VI",
"i7","4GB","Geforce GTX 1050
Ti","15","60","WINDOWS","88","124000");
insert into pcgbm values("Dota 2", "i7","4GB","Geforce GTX 1050
Ti","15","0","WINDOWS","90","124000");
insert into pcgbm values("Cities: Skylines", "i7","4GB","Geforce
GTX 1050 Ti","5","30","WINDOWS","85","124000");
insert into pcgbm values("Apex Legends", "i7","16GB","Geforce
GTX 1050 Ti","35","0","WINDOWS","88","137000");
insert into pcgbm values("PUBG PC", "i7","16GB","Geforce GTX
1050 Ti","35","31","WINDOWS","86","137000");
insert into pcgbm values("Call of Duty: Modern Warfare",
"i7","16GB","Geforce GTX 1050
Ti","55","40","WINDOWS","89","137000");
insert into pcgbm values("Star Citizen", "i3","16GB","Geforce GTX
1050 Ti","40","11","WINDOWS","42","104000");
insert into pcgbm values("The Sims 4", "i3","16GB","Geforce GTX
1050 Ti","20","41","WINDOWS","70","104000");
insert into pcgbm values("Tom Clancy's Rainbow Six Siege",
"i3","16GB","Geforce GTX 1050
Ti","61","20","WINDOWS","79","104000");
insert into pcgbm values("Assassin's Creed Odyssey",
"i5","16GB","Geforce GTX
1060","46","60","WINDOWS","98","113000");
```

```
insert into pcgbm values("ARK: Survival Evolved",
"i5","16GB","Geforce GTX
1060","60","50","WINDOWS","71","113000");
insert into pcgbm values("Planet Zoo", "i5","16GB","Geforce GTX
1060","16","50","WINDOWS","82","113000");
insert into pcgbm values("Overwatch", "i3","4GB","Geforce GTX
1060","30","40","WINDOWS","91","95000");
insert into pcgbm values("Euro Truck Simulator 2",
"i3","4GB","Geforce GTX
1060","3","20","WINDOWS","79","95000");
insert into pcgbm values("Farming Simulator 19",
"i3","4GB","Geforce GTX
1060","23","25","WINDOWS","77","95000");
insert into pcgbm values("Anno 1800", "i3","8GB","Geforce GTX
1060","40","28","WINDOWS","81","98000");
insert into pcgbm values("Terraria", "i3","8GB","Geforce GTX
1060","2","10","WINDOWS","83","98000");
insert into pcgbm values("Age of Empires II: Definitive Edition",
"i3","8GB","Geforce GTX
1060","30","20","WINDOWS","90","98000");
insert into pcgbm values("Total War: WARHAMMER II",
"i3","16GB","Geforce GTX
1060","51","60","WINDOWS","87","108000");
insert into pcgbm values("Dead by Daylight", "i3","16GB","Geforce
GTX 1060","25","20","WINDOWS","71","108000");
insert into pcgbm values("Scrap Mechanic", "i3","16GB","Geforce
GTX 1060","15","20","WINDOWS","85","108000");
insert into pcgbm values("Rust", "i7","16GB","Geforce GTX 1070
Ti","20","40","WINDOWS","69","157000");
```

```
insert into pcgbm values("Battlefield 5", "i7","16GB","Geforce GTX
1070 Ti","50","50","WINDOWS","81","157000");
insert into pcgbm values("Metro Exodus", "i7","16GB","Geforce
GTX 1070 Ti","59","40","WINDOWS","95","157000");
insert into pcgbm values("Far Cry 3", "i5","4GB","Geforce GTX
1070 Ti","15","20","WINDOWS","88","116000");
insert into pcgbm values("Call of Duty: Black Ops II",
"i5","4GB","Geforce GTX 1070
Ti","16","60","WINDOWS","74","116000");
insert into pcgbm values("Black Desert 2", "i5","4GB","Geforce
GTX 1070 Ti","28","100","WINDOWS","73","116000");
insert into pcgbm values("MONSTER HUNTER: WORLD",
"i5","16GB","Geforce GTX 1070
Ti","20","30","WINDOWS","88","129000");
insert into pcgbm values("Assassin's Creed Unity",
"i5","16GB","Geforce GTX 1070
Ti","50","30","WINDOWS","77","129000");
insert into pcgbm values("Assassin's Creed Origins",
"i5","16GB","Geforce GTX 1070
Ti","42","60","WINDOWS","81","129000");
insert into pcgbm values("Far Cry 5", "i3","16GB","Geforce GTX
1070 Ti","40","60","WINDOWS","89","124000");
insert into pcgbm values("No Man's Sky", "i3","16GB","Geforce
GTX 1070 Ti","10","60","WINDOWS","61","124000");
insert into pcgbm values("Fallout 4", "i3","16GB","Geforce GTX
1070 Ti","30","55","WINDOWS","84","124000");
```

Input and Output screen

```
mysql> describe pcgbm;
+----------------------+-------------+------+-----+---------+-------+
| Field                | Type        | Null | Key | Default | Extra |
+----------------------+-------------+------+-----+---------+-------+
| G_name               | varchar(50) | NO   | PRI | NULL    |       |
| processor            | varchar(50) | YES  |     | NULL    |       |
| memory               | varchar(50) | YES  |     | NULL    |       |
| graphics             | varchar(50) | YES  |     | NULL    |       |
| storage_GB_          | int         | YES  |     | NULL    |       |
| price_$_             | int         | YES  |     | NULL    |       |
| platform             | varchar(50) | YES  |     | NULL    |       |
| ReviewScore_outof100 | int         | YES  |     | NULL    |       |
| PCprice_Rs           | int         | YES  |     | NULL    |       |
+----------------------+-------------+------+-----+---------+-------+
9 rows in set (2.48 sec)
```

```
TO Login as USER (Enter U)
TO Login as ADMIN (Enter A)
:
```

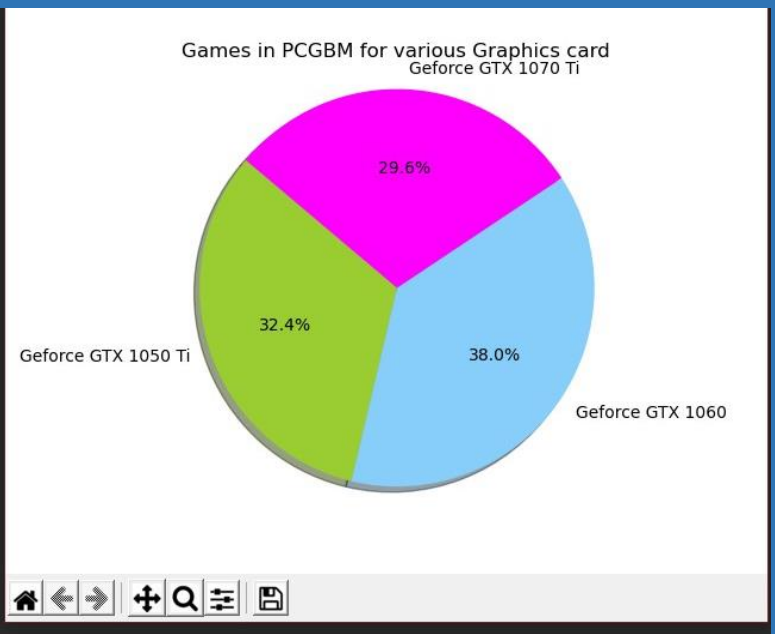
```
TO Login as USER (Enter U)
TO Login as ADMIN (Enter A)
: 2

Invalid Input
```

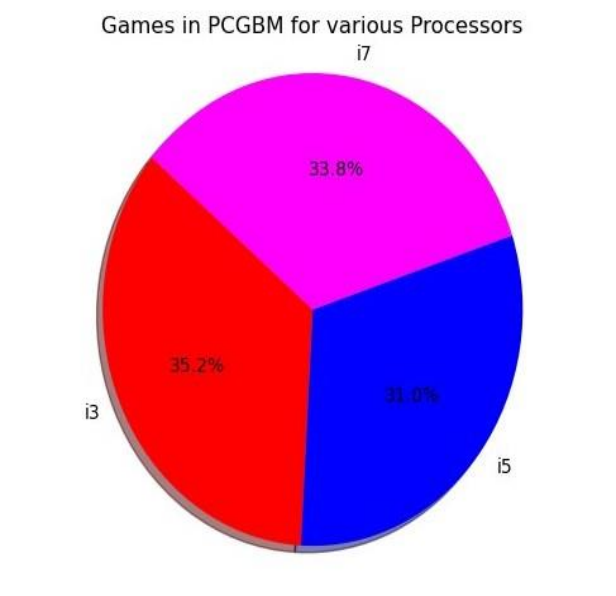
```
TO Login as USER (Enter U)
TO Login as ADMIN (Enter A)
: u

Can I Run It ?
System requirement application to find games that can run on your computer,
And to provide you with Game Price, Price of the PC(Based upon the configuration provided by you + other important parts required to build the PC)
What games your laptop/PC can run - from our list of over 70 PC games.

Tell us about your PC specification from the following option's

Choose from the folLowing GRAPHICS CARD
   Geforce GTX 1050 Ti (ENTER g1)
   Geforce GTX 1060    (ENTER g2)
   Geforce GTX 1070 Ti (ENTER g3)
  : g1

Choose from the folLowing PROCESSOR
  Intel core i3 (ENTER p1)
  Intel core i5 (ENTER p2)
  Intel core i7 (ENTER p3)
  : p2
```

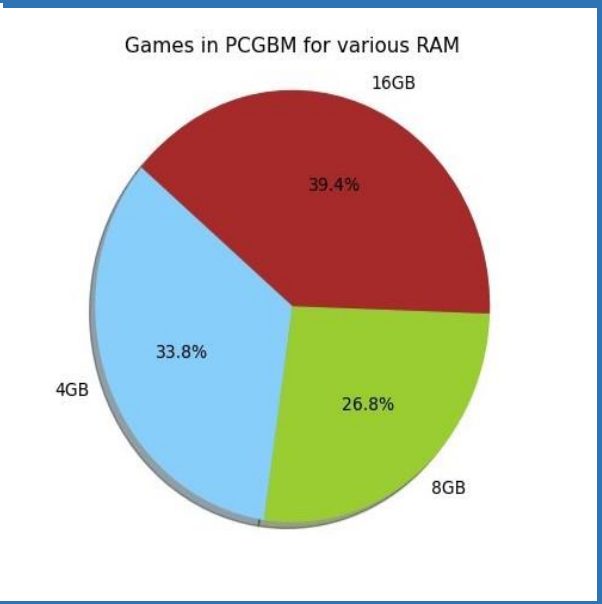
```
Choose from the folLowing MEMORY
 4GB RAM (ENTER r1)
 8GB RAM (ENTER r2)
16GB RAM (ENTER r3)
 :  r1

Game Name                    Age Of Empires II
Storage(GB)                                 30
Price($)                                    15
ReviewScore(out of 100)                     81
PCprice(Rs)                              96000
Name: 0, dtype: object


Game Name                    Divinity:Original
Storage(GB)                                 10
Price($)                                     0
ReviewScore(out of 100)                     94
PCprice(Rs)                              96000
Name: 1, dtype: object
```

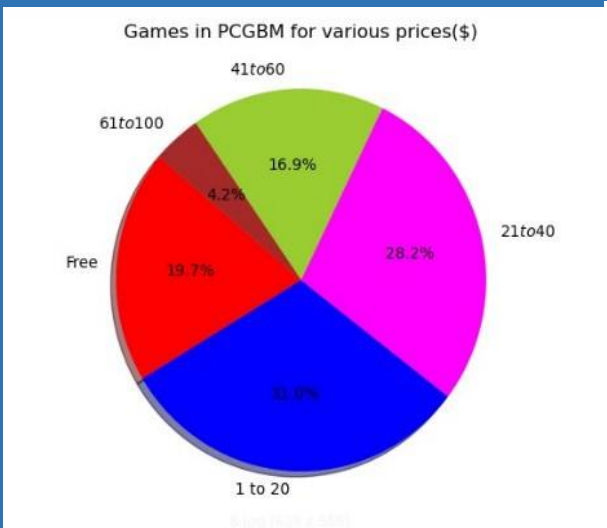
```
Game Name                    The Borderlands 2
Storage(GB)                                 20
Price($)                                    26
ReviewScore(out of 100)                     90
PCprice(Rs)                              96000
Name: 5, dtype: object


IF YOU WANT TO SEE GRAPHS (ENTER Y) : y

Select the graph you want to see
1.Pie chart
2.Bar graph
3.Line Graph
4.Scatter plot
Enter choice of graphs :
```

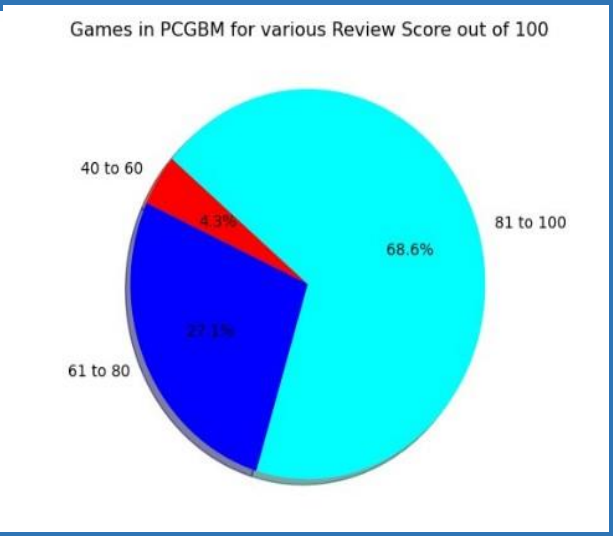
```
Game Name                    GTA:Vice City
Storage(GB)                             10
Price($)                                 3
ReviewScore(out of 100)                 94
PCprice(Rs)                          96000
Name: 4, dtype: object


Game Name                    The Borderlands 2
Storage(GB)                                 20
Price($)                                    26
ReviewScore(out of 100)                     90
PCprice(Rs)                              96000
Name: 5, dtype: object


IF YOU WANT TO SEE GRAPHS (ENTER Y) : y

Select the graph you want to see
1.Pie chart
2.Bar graph
3.Line Graph
4.Scatter plot
Enter choice of graphs : 1
```



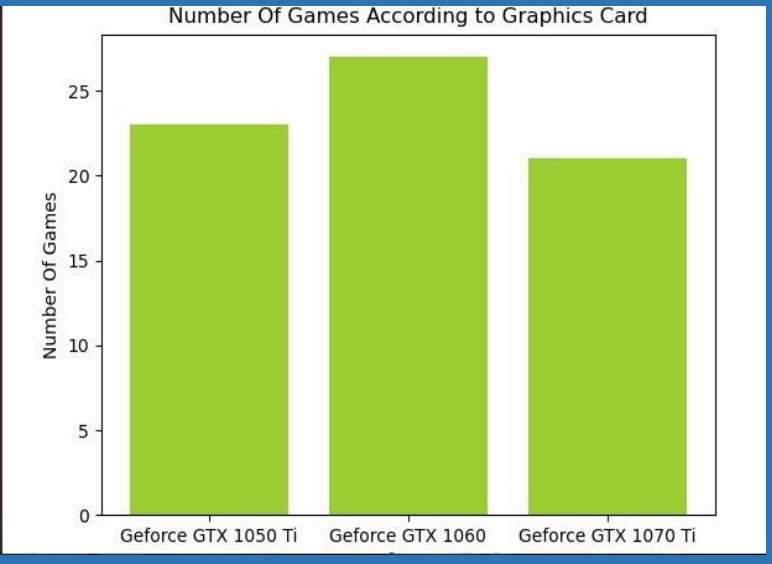


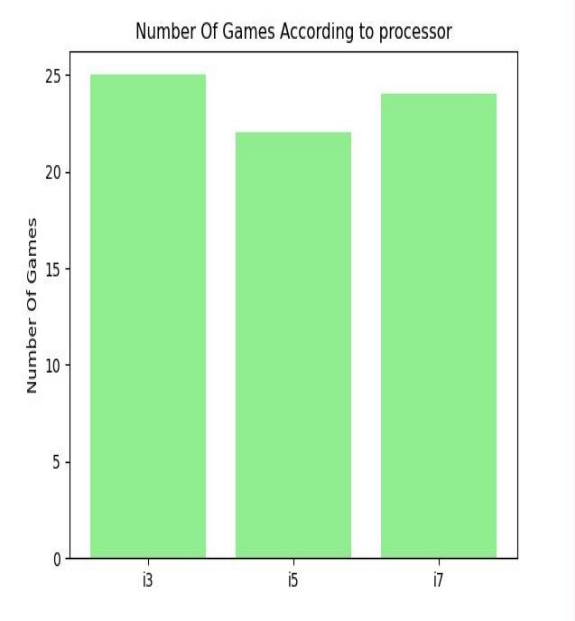


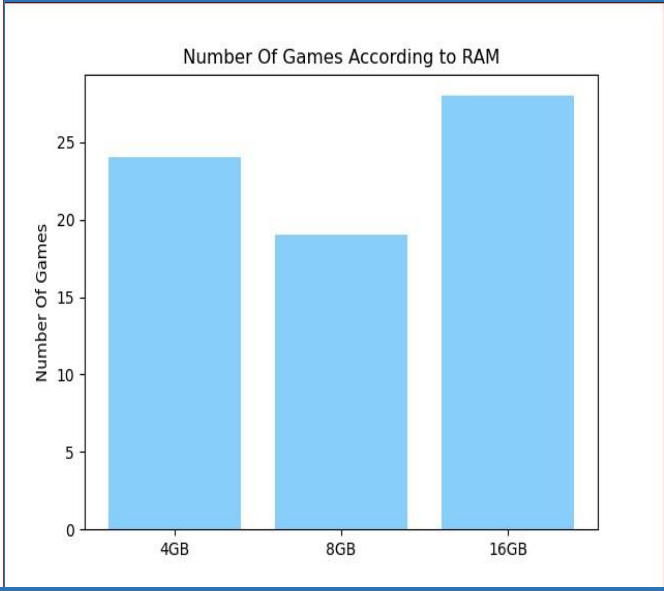


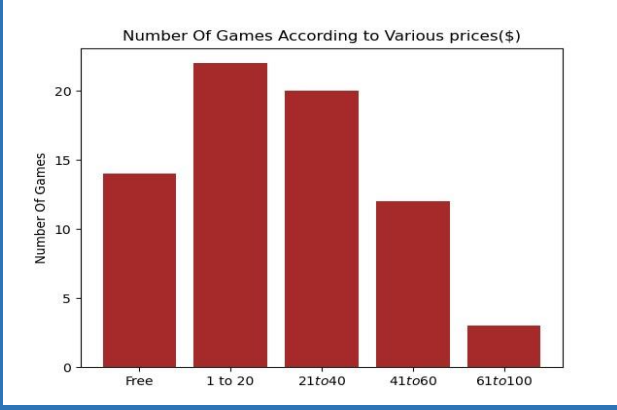


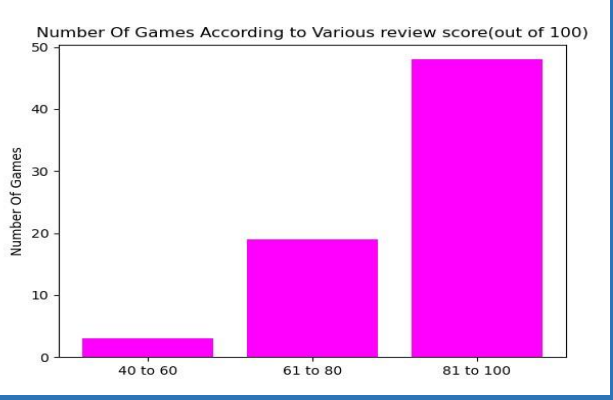

```
IF YOU WANT TO SEE GRAPHS (ENTER Y) : y

Select the graph you want to see
1.Pie chart
2.Bar graph
3.Line Graph
4.Scatter plot
Enter choice of graphs : 1

DO YOU WANT TO SEE MORE GRAPHS (ENTER Y) : y

Select the graph you want to see
1.Pie chart
2.Bar graph
3.Line Graph
4.Scatter plot
Enter choice of graphs : 2
```



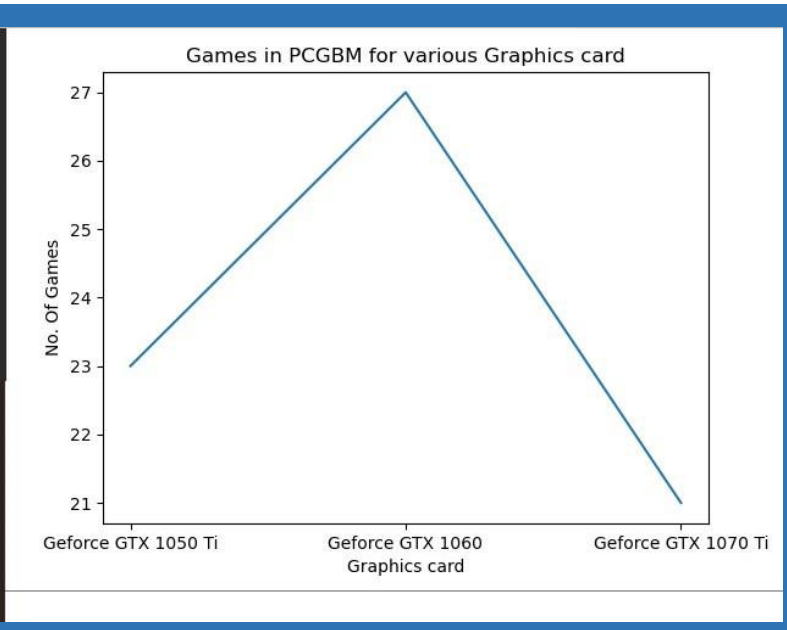


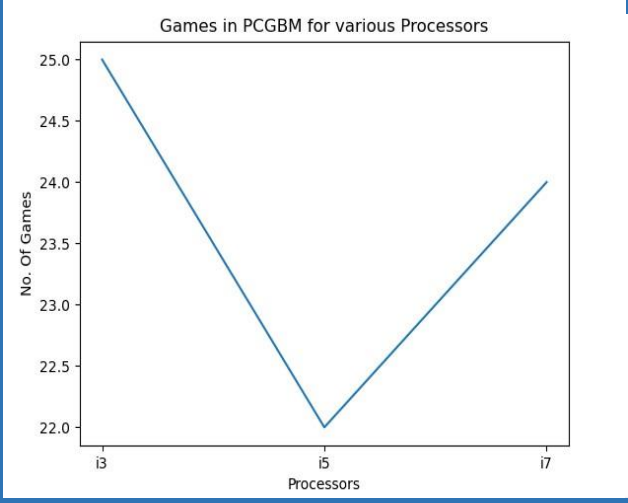


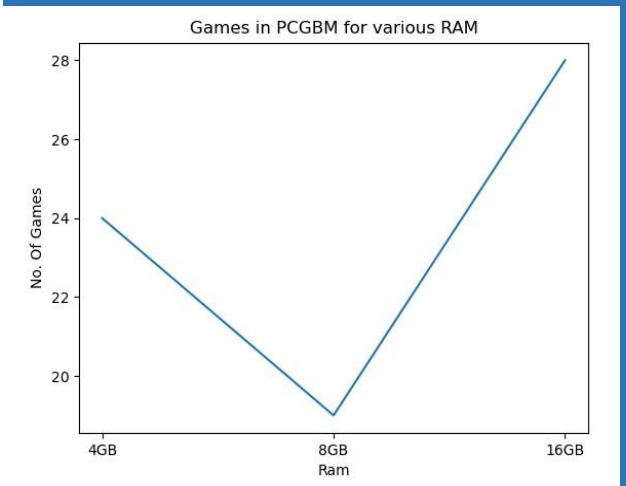


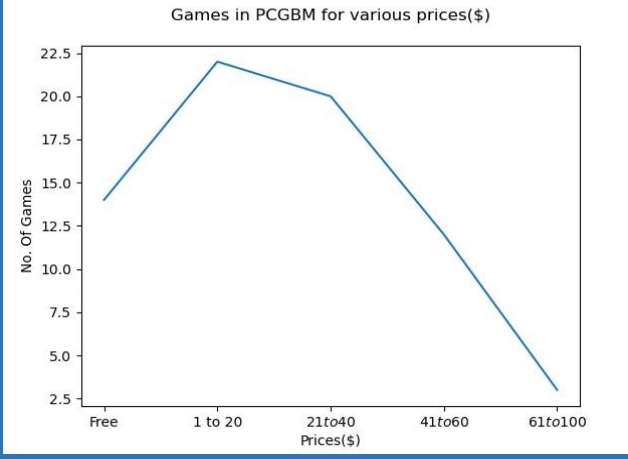


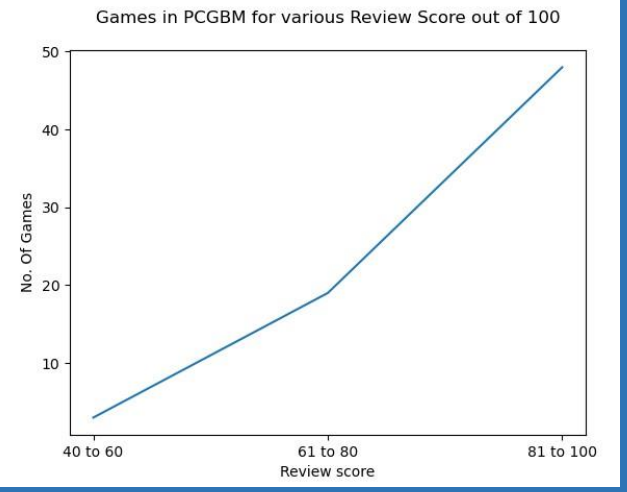

```
1.Pie chart
2.Bar graph
3.Line Graph
4.Scatter plot
Enter choice of graphs : 1

DO YOU WANT TO SEE MORE GRAPHS (ENTER Y) : y

Select the graph you want to see
1.Pie chart
2.Bar graph
3.Line Graph
4.Scatter plot
Enter choice of graphs : 2

DO YOU WANT TO SEE MORE GRAPHS (ENTER Y) : y

 Select the graph you want to see
 1.Pie chart
 2.Bar graph
 3.Line Graph
 4.Scatter plot
 Enter choice of graphs : 3
```



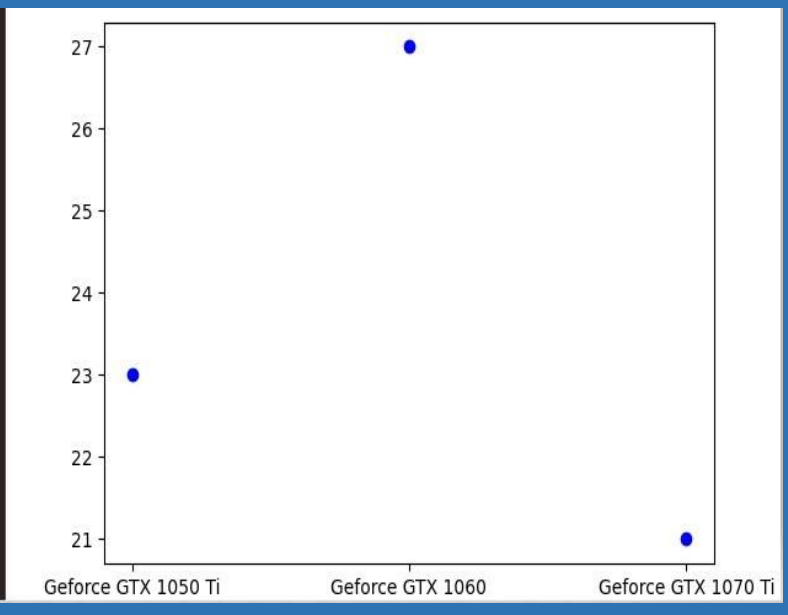


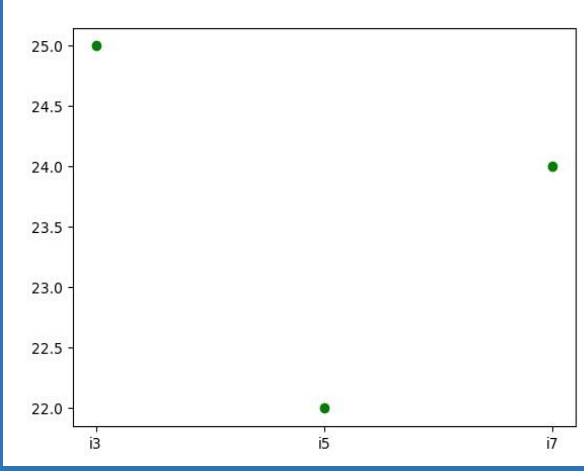


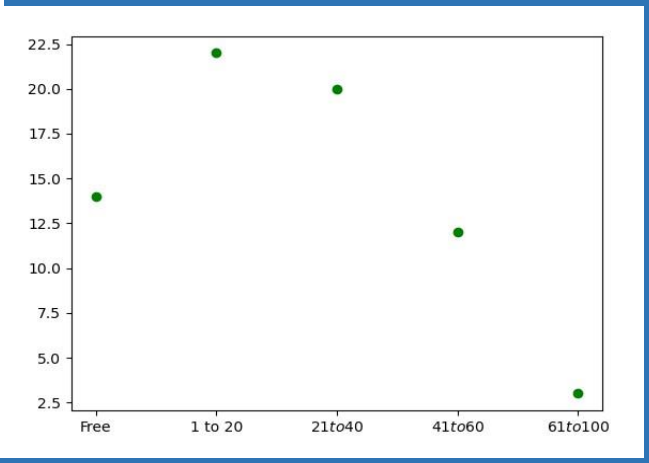


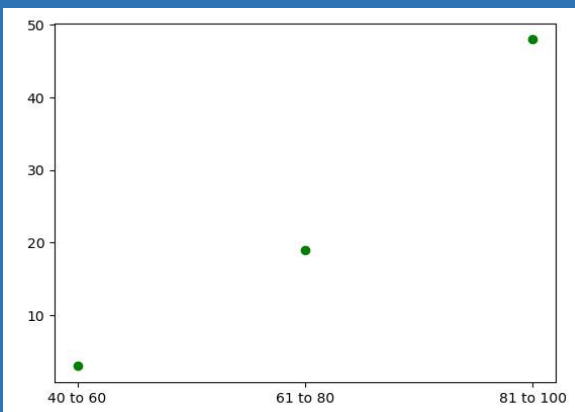


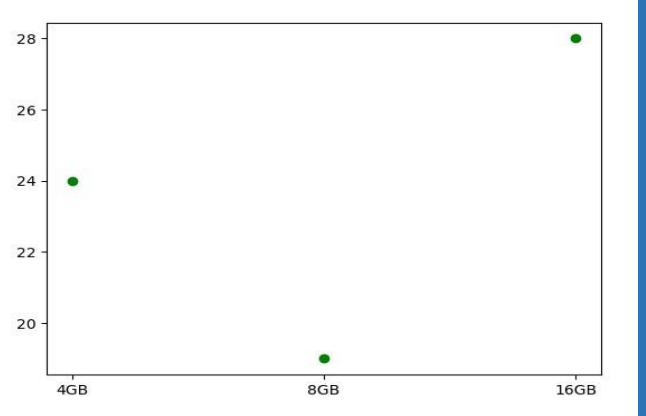

```
DO YOU WANT TO SEE MORE GRAPHS (ENTER Y) : y

Select the graph you want to see
1.Pie chart
2.Bar graph
3.Line Graph
4.Scatter plot
Enter choice of graphs : 3

DO YOU WANT TO SEE MORE GRAPHS (ENTER Y) : y

Select the graph you want to see
1.Pie chart
2.Bar graph
3.Line Graph
4.Scatter plot
Enter choice of graphs : 4
```












```
DO YOU WANT TO SEE MORE GRAPHS (ENTER Y) : n


Do you want run the program again
If yes then type y
Else enter anything
: n

I wish you have a Good Day!!

Process finished with exit code 0
```

```
DO YOU WANT TO SEE MORE GRAPHS (ENTER Y) : y

Select the graph you want to see
1.Pie chart
2.Bar graph
3.Line Graph
4.Scatter plot
Enter choice of graphs : 4

DO YOU WANT TO SEE MORE GRAPHS (ENTER Y) : n


Do you want run the program again
If yes then type y
Else enter anything
: y

TO Login as USER (Enter U)
TO Login as ADMIN (Enter A)
:
```

```
TO Login as USER (Enter U)
TO Login as ADMIN (Enter A)
: a

Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!

1. Add Record
2. Delete record
3. Show records
4. Update records
5. Graphs
6. Exit

Enter choice :
```

```
1. Add Record
2. Delete record
3. Show records
4. Update records
5. Graphs
6. Exit

Enter choice : 1
game name :  kgf
processor from Intel core i3, Intel core i5 and Intel core i7 : i3
memory from 4GB, 8GB and 16GB : 8GB
graphics from Geforce GTX 1050 Ti, Geforce GTX 1060 and Geforce GTX 1070 Ti : Geforce GTX 1060
storage_GB_ : 12
price_$_ : 5
platform : WINDOWS
ReviewScore_outof100 : 50
PCprice_Rs : 98000
records added
Do you want to ADD more records :
```

```
6. Exit

Enter choice : 1
game name :  kgf
processor from Intel core i3, Intel core i5 and Intel core i7 : i3
memory from 4GB, 8GB and 16GB : 8GB
graphics from Geforce GTX 1050 Ti, Geforce GTX 1060 and Geforce GTX 1070 Ti : Geforce GTX 1060
storage_GB_ : 12
price_$_ : 5
platform : WINDOWS
ReviewScore_outof100 : 50
PCprice_Rs : 98000
records added
Do you want to ADD more records : y
game name :  kgf1
processor from Intel core i3, Intel core i5 and Intel core i7 : i3
memory from 4GB, 8GB and 16GB : 8GB
graphics from Geforce GTX 1050 Ti, Geforce GTX 1060 and Geforce GTX 1070 Ti : Geforce GTX 1060
storage_GB_ : 16
price_$_ : 9
platform : WINDOWS
ReviewScore_outof100 : 64
PCprice_Rs : 98000
records added
Do you want to ADD more records : n

Do you want to return to Admin Window :
```

```
Do you want to ADD more records : n

Do you want to return to Admin Window : y
Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!

1. Add Record
2. Delete record
3. Show records
4. Update records
5. Graphs
6. Exit

Enter choice : 2
game name :  kgf
records deleted
Do you want to DELETE more records : y
game name :  kgf1
records deleted
Do you want to DELETE more records : n

Do you want to return to Admin Window : y
Enter LoginID :
```

```
Do you want to return to Admin Window : y
Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!

1. Add Record
2. Delete record
3. Show records
4. Update records
5. Graphs
6. Exit

Enter choice : 3
Total number of rows in database is :  71

Printing each record
G_name =  Age Of Empires II
processor =  i5
memory =  4GB
graphics  =  Geforce GTX 1050 Ti
storage_GB_ =  30
price_$_ =  15
platform =  WINDOWS
ReviewScore_outof100 =  81
PCprice_Rs =  96000
```

```
G_name =  World of Warcraft
processor =  i7
memory =  8GB
graphics  =  Geforce GTX 1050 Ti
storage_GB_ =  5
price_$_ =  15
platform =  WINDOWS
ReviewScore_outof100 =  93
PCprice_Rs =  127000


Do you want to return to Admin Window : y
Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!

1. Add Record
2. Delete record
3. Show records
4. Update records
5. Graphs
6. Exit

Enter choice :
```

```
Do you want to return to Admin Window : y
Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!

1. Add Record
2. Delete record
3. Show records
4. Update records
5. Graphs
6. Exit

Enter choice : 4
What do you want to Update ?

1. Game name
2. Processor
3. Memory
4. Storage
5. Price
6. Review Score
7. Graphics
8. PC price
Enter Choice :
```

```
1. Game name
2. Processor
3. Memory
4. Storage
5. Price
6. Review Score
7. Graphics
8. PC price
Enter Choice : 1
Old game name :  predator
New Game Name : predator Galea
records updated

Do you want to UPDATE more Games name : n

Do you want to return to Admin Window : y
Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!

1. Add Record
2. Delete record
3. Show records
4. Update records
5. Graphs
6. Exit
```

```
Enter choice : 4
What do you want to Update ?


1. Game name
2. Processor
3. Memory
4. Storage
5. Price
6. Review Score
7. Graphics
8. PC price
Enter Choice : 2
game name :  predator galea
New processor:i7
records updated
Do you want to UPDATE processor of more games : n

Do you want to return to Admin Window : y
Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!
```

```
What do you want to Update ?

1. Game name
2. Processor
3. Memory
4. Storage
5. Price
6. Review Score
7. Graphics
8. PC price
Enter Choice : 3
game name :  predator galea
New memory:4GB
records updated
Do you want to UPDATE Memory of more Games : n

Do you want to return to Admin Window : y
Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!
```

```
What do you want to Update ?

1. Game name
2. Processor
3. Memory
4. Storage
5. Price
6. Review Score
7. Graphics
8. PC price
Enter Choice : 4
game name :  predator galea
New storage:45
records updated
Do you want to UPDATE Storage of more Games : n

Do you want to return to Admin Window : y
Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!
```

```
3. Memory
4. Storage
5. Price
6. Review Score
7. Graphics
8. PC price
Enter Choice : 5
game name :  predator galea
New price:25
records updated
Do you want to UPDATE Price of more Games : n

Do you want to return to Admin Window : y
Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!

1. Add Record
2. Delete record
3. Show records
4. Update records
5. Graphs
6. Exit

Enter choice : 4
What do you want to Update ?
```

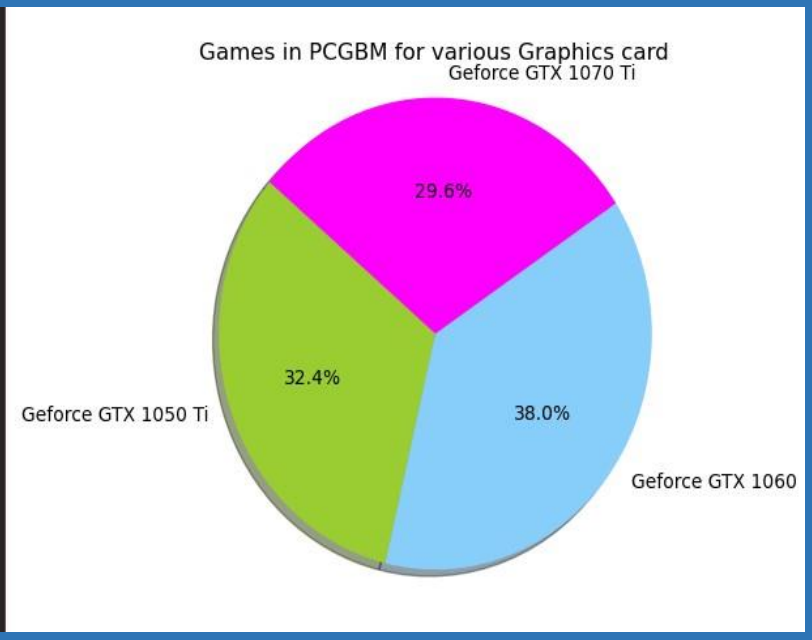
```
Enter choice : 4
What do you want to Update ?

1. Game name
2. Processor
3. Memory
4. Storage
5. Price
6. Review Score
7. Graphics
8. PC price
Enter Choice : 6
game name :  predator galea
New ReviewScore:85
records updated
Do you want to UPDATE ReviewScore of more Games : n

Do you want to return to Admin Window : y
Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!
```

```
1. Game name
2. Processor
3. Memory
4. Storage
5. Price
6. Review Score
7. Graphics
8. PC price
Enter Choice : 7
game name :  predator galea
New graphics:Geforce GTX 1050 Ti
records updated
Do you want to UPDATE Graphics of more Games : n

Do you want to return to Admin Window : y
Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!
```

```
Enter choice : 4
What do you want to Update ?

1. Game name
2. Processor
3. Memory
4. Storage
5. Price
6. Review Score
7. Graphics
8. PC price
Enter Choice : 8
game name :  predator galea
New PCprice:124000
records updated
Do you want to UPDATE PCprice of more Games : n

Do you want to return to Admin Window : y
Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!
```

```
Do you want to return to Admin Window : y
Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!

1. Add Record
2. Delete record
3. Show records
4. Update records
5. Graphs
6. Exit

Enter choice : 5

Select the graph you want to see
1.Pie chart
2.Bar graph
3.Line Graph
4.Scatter plot
Enter choice of graphs :
```

```
Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!

1. Add Record
2. Delete record
3. Show records
4. Update records
5. Graphs
6. Exit

Enter choice : 5

Select the graph you want to see
1.Pie chart
2.Bar graph
3.Line Graph
4.Scatter plot
Enter choice of graphs : 1
```



Similarly, the program will show rest of the different types of graphs

```
Enter choice of graphs : 3

DO YOU WANT TO SEE MORE GRAPHS (ENTER Y) : y

Select the graph you want to see
1.Pie chart
2.Bar graph
3.Line Graph
4.Scatter plot
Enter choice of graphs : 4

DO YOU WANT TO SEE MORE GRAPHS (ENTER Y) : n

Do you want to return to Admin Window : y
Enter LoginID : pcgbm
Enter Password : ****
Access Granted!!

1. Add Record
2. Delete record
3. Show records
4. Update records
5. Graphs
6. Exit

Enter choice : 6
Exiting

Process finished with exit code 0
```

```
mysql> use pcgbm
Database changed
mysql> select * from pcgbm;
```

G_name	processor	memory	graphics	storage_GB_	price_$_	platform	ReviewScore_outof100	PCprice_Rs
Age Of Empires II	i5	4GB	Geforce GTX 1050 Ti	30	15	WINDOWS	81	96000
Age of Empires II: Definitive Edition	i3	8GB	Geforce GTX 1060	30	20	WINDOWS	90	98000
Anno 1800	i3	8GB	Geforce GTX 1060	40	28	WINDOWS	81	98000
Apex	i7	16GB	Geforce GTX 1060	30	3	WINDOWS	88	141000
Apex Legends	i7	16GB	Geforce GTX 1050 Ti	35	0	WINDOWS	88	137000
ARK: Survival Evolved	i5	16GB	Geforce GTX 1060	60	50	WINDOWS	71	113000
Assassin's Creed Odyssey	i5	16GB	Geforce GTX 1060	46	60	WINDOWS	98	113000
Assassin's Creed Origins	i5	16GB	Geforce GTX 1070 Ti	42	60	WINDOWS	81	129000
Assassin's Creed Unity	i5	16GB	Geforce GTX 1070 Ti	50	30	WINDOWS	77	129000
Assassins Creed	i7	8GB	Geforce GTX 1060	50	13	WINDOWS	80	131000
Battlefield 5	i7	16GB	Geforce GTX 1070 Ti	50	50	WINDOWS	81	157000
Black Desert	i3	4GB	Geforce GTX 1070 Ti	15	0	WINDOWS	73	111000
Black Desert 2	i5	4GB	Geforce GTX 1070 Ti	28	100	WINDOWS	73	116000
Call of Duty: Black Ops II	i5	4GB	Geforce GTX 1070 Ti	16	60	WINDOWS	74	116000
Call of Duty: Black Ops III	i3	4GB	Geforce GTX 1050 Ti	100	36	WINDOWS	73	91000
Call of Duty: Modern Warfare	i7	16GB	Geforce GTX 1050 Ti	55	40	WINDOWS	89	137000
Cities: Skylines	i7	4GB	Geforce GTX 1050 Ti	5	30	WINDOWS	85	124000
Counter Strike:Global Offensive	i3	4GB	Geforce GTX 1050 Ti	15	0	WINDOWS	83	91000
CRUCIBLE	i7	8GB	Geforce GTX 1060	15	16	WINDOWS	60	131000
Dead by Daylight	i3	16GB	Geforce GTX 1060	25	20	WINDOWS	71	108000
Destiny 2	i7	16GB	Geforce GTX 1060	105	0	WINDOWS	83	141000
Destiny 2: Beyond Light	i7	8GB	Geforce GTX 1060	105	70	WINDOWS	83	131000
Divinity	i5	4GB	Geforce GTX 1060	16	0	WINDOWS	94	100000
Divinity:Original	i5	4GB	Geforce GTX 1050 Ti	10	0	WINDOWS	94	96000
DOOM Eternal	i5	8GB	Geforce GTX 1060	50	31	WINDOWS	90	103000
Dota 2	i7	4GB	Geforce GTX 1050 Ti	15	0	WINDOWS	90	124000
Euro Truck Simulator 2	i3	4GB	Geforce GTX 1060	3	20	WINDOWS	79	95000
Fallout 4	i3	16GB	Geforce GTX 1070 Ti	30	55	WINDOWS	84	124000
Far Cry 3	i5	4GB	Geforce GTX 1070 Ti	15	20	WINDOWS	88	116000
Far Cry 5	i3	16GB	Geforce GTX 1070 Ti	40	60	WINDOWS	89	124000
Farming Simulator 19	i3	4GB	Geforce GTX 1060	23	25	WINDOWS	77	95000
FIFA 19	i3	8GB	Geforce GTX 1050 Ti	50	40	WINDOWS	81	94000
Fifa 20	i7	8GB	Geforce GTX 1060	50	21	WINDOWS	20	131000
FINAL FANTASY XIV Online	i5	4GB	Geforce GTX 1050 Ti	60	15	WINDOWS	83	96000
Football Manager 2020	i5	4GB	Geforce GTX 1050 Ti	50	30	WINDOWS	87	96000
Fortnite	i3	8GB	Geforce GTX 1050 Ti	15	0	WINDOWS	81	94000
Grand Theft Auto V (GTA 5)	i7	4GB	Geforce GTX 1060	72	15	WINDOWS	96	128000
GTA IV	i5	16GB	Geforce GTX 1050 Ti	16	11	WINDOWS	90	109000
GTA:Vice City	i5	4GB	Geforce GTX 1050 Ti	10	3	WINDOWS	94	96000
iRacing	i5	8GB	Geforce GTX 1060	6	0	WINDOWS	79	103000
League of Legends	i7	16GB	Geforce GTX 1060	12	16	WINDOWS	76	141000
Mass Effect 2	i3	4GB	Geforce GTX 1070 Ti	14	4	WINDOWS	94	111000
Metro Exodus	i7	16GB	Geforce GTX 1070 Ti	59	40	WINDOWS	95	157000
MINECRAFT	i3	8GB	Geforce GTX 1070 Ti	4	0	WINDOWS	93	114000
MONSTER HUNTER: WORLD	i5	16GB	Geforce GTX 1070 Ti	20	30	WINDOWS	88	129000
Monster Hunter:World	i7	8GB	Geforce GTX 1070 Ti	20	21	WINDOWS	88	147000
Mount and Blade	i7	8GB	Geforce GTX 1070 Ti	16	0	WINDOWS	78	147000
NBA 2K20	i5	8GB	Geforce GTX 1050 Ti	80	13	WINDOWS	79	99000
No Man's Sky	i3	16GB	Geforce GTX 1070 Ti	10	60	WINDOWS	61	124000
Overwatch	i3	4GB	Geforce GTX 1060	30	40	WINDOWS	91	95000
Planet Zoo	i5	16GB	Geforce GTX 1060	16	50	WINDOWS	82	113000
Portal 2	i7	4GB	Geforce GTX 1070 Ti	10	0	WINDOWS	95	144000
predator Galea	i7	4GB	Geforce GTX 1050 Ti	45	25	WINDOWS	85	124000
Pubg Lite	i3	4GB	Geforce GTX 1050 Ti	4	0	WINDOWS	86	91000
PUBG PC	i7	16GB	Geforce GTX 1050 Ti	35	31	WINDOWS	86	137000
Rust	i7	16GB	Geforce GTX 1070 Ti	20	40	WINDOWS	69	157000
Scrap Mechanic	i3	16GB	Geforce GTX 1060	15	20	WINDOWS	85	108000
Sid Meier?s Civilization VI	i7	4GB	Geforce GTX 1050 Ti	15	60	WINDOWS	88	124000
Star Citizen	i3	16GB	Geforce GTX 1050 Ti	40	11	WINDOWS	42	104000
Star Citizen 2	i7	16GB	Geforce GTX 1060	40	10	WINDOWS	42	141000
STAR WARS Jedi: Fallen Order	i5	8GB	Geforce GTX 1070 Ti	55	35	WINDOWS	90	119000
Terraria	i3	8GB	Geforce GTX 1060	2	10	WINDOWS	83	98000
The Borderlands 2	i5	4GB	Geforce GTX 1050 Ti	20	26	WINDOWS	90	96000
The Elder Scrolls V: Skyrim	i5	4GB	Geforce GTX 1060	6	16	WINDOWS	94	100000
The red dead redemption 2	i7	16GB	Geforce GTX 1060	150	30	WINDOWS	94	141000
The Sims 4	i3	16GB	Geforce GTX 1050 Ti	20	41	WINDOWS	70	104000
The Witcher 3	i3	8GB	Geforce GTX 1070 Ti	55	40	WINDOWS	93	114000
Tom Clancy's Rainbow Six Siege	i3	16GB	Geforce GTX 1050 Ti	61	20	WINDOWS	79	104000
Total War: WARHAMMER II	i3	16GB	Geforce GTX 1060	51	60	WINDOWS	87	108000
Valorant	i3	8GB	Geforce GTX 1070 Ti	120	0	WINDOWS	81	114000
Warzone	i7	16GB	Geforce GTX 1060	197	61	WINDOWS	79	141000
World of Warcraft	i7	8GB	Geforce GTX 1050 Ti	5	15	WINDOWS	93	127000

```
72 rows in set (0.10 sec)
```

Future Enhancements

1. Improving on presentation of the program with the help of Tkinter module and many more.

2. Adding more records to the database so the user has much better chances to solve his query.

3. Adding more graphs for visualizing purposes.

4. Giving user more graphics card, RAM and processor option so he has better chances to be updated to the latest products in the market and improve his chances for what he is looking for.

Bibliography

1. https://buildmypc.net/list/ (for providing data for pc price)

2. https://www.pcgamebenchmark.com/ (for providing games configurations)

3. https://store.steampowered.com/ (for providing games price)

4. https://www.ea.com/ (for providing games price)

5. https://www.epicgames.com/store/en-US/ (for providing games price)

6. https://www.rockstargames.com/ (for providing games price)