MEERUT CITY PUBLIC SCHOOL

SHIV SHAKTI NAGAR,

MEERUT

NAME:	**MANU GAUR**
CLASS:	**12**
SECTION :	**A**
EXAM ROLL NUMBER:	**21706078**
ACADEMIC YEAR:	**2022-2023**
PROJECT NAME:	**BANKING SYSTEM**
SUBJECT TEACHER NAME:	**MR. RAHUL SAINI**

CERTIFICATE

This is to certify that MANU GAUR, student of Class XII, Meerut City Public School has completed the PRACTICAL FILE on project Banking System during the academic year 2022-23 towards partial fulfilment of credit for the Computer Science practical evaluation of CBSE and submitted satisfactory report, as compiled in the following pages, under my supervision.

External Examiner
Signature

Internal Examiner
Signature

ACKNOWLEDGEMENT

I wish to express my deep sense of gratitude and indebtedness to our learned teacher Mr. Rahul Saini, PGT COMPUTER SCIENCE, Meerut City Public School for his invaluable help, advice and guidance in the preparation of this project.

I am also greatly indebted to our principal Mrs.Karuna Gupta Ma'am and school authorities for providing me with the facilities and requisite laboratory conditions for making this practical file.

I also extend my thanks to a number of teachers,my classmates and friends who helped me to complete this practical file successfully.

MANU GAUR

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TOPIC OF THE PROJECT

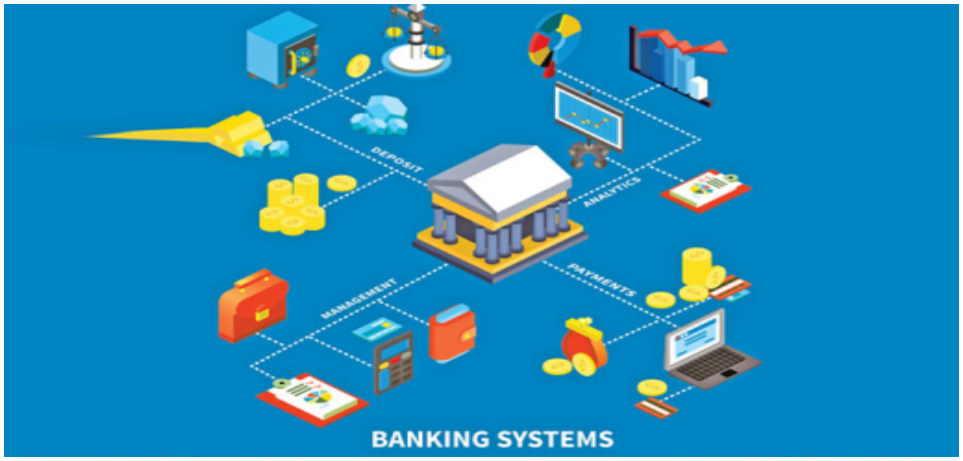
BANKING SYSYTEM

Group Members

1. HARSHIT VERMA

2.MANU GAUR

3.SHREYA GUPTA



USE OF TECHNOLOGY

❖ WHAT IS MySQL?

MySQL is a relational DBMS that can run virtually all platforms, including Linux, Unix and Windows. Popular for web-based applications and online publishing, MySQL is a part of open-source enterprise stack LAMP (Linux, Apache, MySQL, PHP).

MySQL is a freely available open source RDBMS that uses Structured Query Language (SQL). It is down-loadable from site www.mysql.org MySQL is fast, reliable, scalable alternative to many of the commercial RDBMs available today.

MySQL provides you with a rich set of features that support a secure environment for storing, maintaining, and accessing data. 18 MySQL was created and supported by MySQL AB, a company based in Sweden. This company is now a subsidiary of Sun Microsystems, which holds the copyright to most of the codebase. On April 20th, 2009 Oracle Corp., which develops and sells the proprietary Oracle database, announced a deal to acquire Sun Microsystems. SQL provides many different types of commands used for different purposes.

SQL commands can be divided into following categories:

1.Data Definition Language (DDL)

2.Data Manipulation Language (DML)

3.Transaction Control Language (TCL)

4.Session Control Commands

5.System Control Commands

❖WHAT IS PYTHON?

Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its high-level built in data structures, combined with dynamic typing and dynamic binding; make it very attractive for Rapid Application Development, as well as for use as a scripting or glue language to connect existing components together.

Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program maintenance. Python supports modules and packages, which encourages program modularity and code reuse. The Python interpreter and the extensive standard library are available in source or binary form without charge for all 20 major platforms, and can be freely distributed. Often, programmers fall in love with Python because of the increased productivity it provides.

Debugging Python programs is easy: a bug or bad input will never cause a segmentation fault. Instead, when the interpreter discovers an error, it raises an exception. A source level debugger allows inspection of local and global variables, evaluation of arbitrary

expressions, setting breakpoints, stepping through the code a line at a time, and so on. The debugger is written in Python itself, testifying to Python's introspective power. On the other hand, often the quickest way to debug a program is to add a few print statements to the source: the fast edit-test-debug cycle makes this simple approach very effective.

HARDWARE AND SOFTWARE

REQUIREMENT SYSTEM:

OS- Windows 7 Professional 32-Bit (6.1, Build 7601)

Language: English

System Manufacture-Gigabyte Technology Co., Ltd

BIOS:-BIOS Date: 08/03/13 09:45:07

Ver: 04.06.05

Processor:- Intel (R) Core ™ i3-3220CPU @3.30 GHz (4CPUs), ~3.3GHz

Memory: 2048 MB RAM;DirectX Version: Direct XII

DISPLAY DEVICE:

Name:-Intel(R) HD Graphics

Manufacturer: - Gigabyte Technology Co., Ltd

Chip Type: - Intel(R) HD Graphics Family

DAC Type:-Internal

Approx. Total Memory:-775 MB

Current Display mode: - 1336 X 768 (32 Bit)(60Hz)

Monitor:- LG LED Monitor

DRIVER:

Main Driver: - igdumdim 32.dll,igd loiumd 32.dll,igd lo

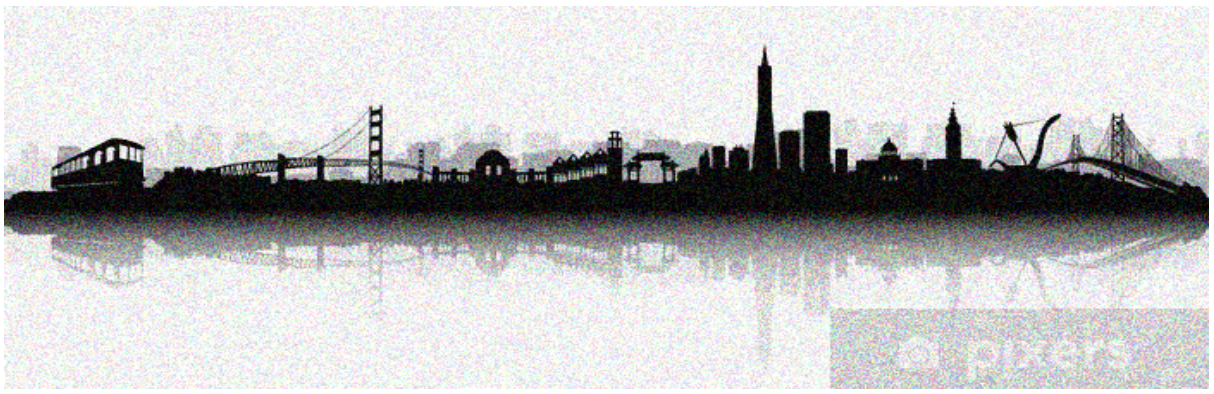
Version:-10.18.10.3345

Date:-10/28/13

WHQL logo’s:- Yes

DDI Version: II

Driver Model:-WDDM 1.1



MAIN BANK-CODE "HMS BANK"

```
import  mysql.connector as sql

conn=sql.connect(host='localhost',user='root',passwd='1234',database='ba
nk')

cur = conn.cursor()

#cur.execute('create table user_table(username varchar(25) primary
key,passwrd varchar(25) not null )')

print('=========================WELCOME TO HMS
BANK==============================================
==========')

import datetime as dt

print(dt.datetime.now())
```

```
print('1.REGISTER')
print()
print('2.LOGIN')
print()

n=int(input('enter your choice='))
print()

if n== 1:
    name=input('Enter a Username=')
    print()
    passwd=int(input('Enter a 4 DIGIT Password='))
    print()
    V_SQLInsert="INSERT  INTO user_table (passwrd,username) values (" +
str (passwd) + ",' " + name + " ') "
    cur.execute(V_SQLInsert)
```

```
    conn.commit()
    print()
    print('USER created succesfully')
    import menu


if  n==2 :
    name=input('Enter your Username=')
    print()
    passwd=int(input('Enter your 4 DIGIT Password='))
    V_Sql_Sel="select * from user_table where passwrd="'+str (passwd)+"'
and username=  ' " +name+ " ' "
    cur.execute(V_Sql_Sel)
    if cur.fetchone() is  None:
        print()
        print('Invalid username or password')
    else:
```

```
print()

import menu
```

MENU-CODE

```
import datetime as dt

import  mysql.connector as sql
```

```
conn=sql.connect(host='localhost',user='root',passwd='1234',database='ba
nk')

cur = conn.cursor()




conn.autocommit = True

c = 'y'

while c == 'y':


        print()

        print('1.CREATE BANK ACCOUNT')

        print()

        print('2.TRANSACTION')

        print()

        print('3.CUSTOMER DETAILS')
```

```
print()
print('4.TRANSACTION DETAILS')
print()
print('5.DELETE ACCOUNT')
print()
print('6.QUIT')


print()
n=int(input('Enter your CHOICE='))
print()


if n == 1:

    acc_no=int(input('Enter your ACCOUNT NUMBER='))
    print()
    acc_name=input('Enter your ACCOUNT NAME=')
```

```
                print()
                ph_no=int(input('Enter your PHONE NUMBER='))
                print()
                add=(input('Enter your place='))
                print()
                cr_amt=int(input('Enter your credit amount='))
                V_SQLInsert="INSERT  INTO customer_details values (" +
str (acc_no) + "," " + acc_name + " ","+str(ph_no) + "," " +add + " ","+ str
(cr_amt) + " ) "
                cur.execute(V_SQLInsert)
                print()
                print('Account Created Succesfully!!!!!')
                conn.commit()



        if n == 2:
            acct_no=int(input('Enter Your Account Number='))
```

```
                cur.execute('select * from customer_details where
acct_no='+str (acct_no) )
                data=cur.fetchall()
                count=cur.rowcount
                conn.commit()
                if count == 0:
                    print()
                    print('Account Number Invalid Sorry Try Again Later')
                    print()
                else:
                    print()
                    print('1.WITHDRAW AMOUNT')
                    print()
                    print('2.ADD AMOUNT')
                    print()
```

```
                print()
                x=int(input('Enter your CHOICE='))
                print()
                if x == 1:
                    amt=int(input('Enter withdrawl amount='))
                    cr_amt=0
                    cur.execute('update customer_details set
cr_amt=cr_amt-'+str(amt) +  ' where acct_no=' +str(acct_no) )
                    V_SQLInsert="INSERT  INTO transactions values ({} , '{}' ,
{} , {}) ".format(acct_no,dt.datetime.today(),amt,cr_amt)
                    cur.execute(  V_SQLInsert)
                    conn.commit()
                    print()
                    print('Account Updated Succesfully!!!!!')
```

```
                    if x== 2:
                        amt=int(input('Enter amount to be added='))
                        cr_amt=0
                        cur.execute('update customer_details set
cr_amt=cr_amt+'+str(amt) +  ' where acct_no=' +str(acct_no) )
                        V_SQLInsert="INSERT  INTO transactions values ({} , '{}' ,
{} , {}) ".format(acct_no,dt.datetime.today(),cr_amt,amt)
                        cur.execute(  V_SQLInsert)
                        conn.commit()
                        print()
                        print('Account Updated Succesfully!!!!!')


                if n == 3:
                    acct_no=int(input('Enter your account number='))
                    print()
                    cur.execute('select * from customer_details where
acct_no='+str(acct_no) )
```

```
                if cur.fetchone() is  None:
                    print()
                    print('Invalid Account number')
                else:
                    cur.execute('select * from customer_details where
acct_no='+str(acct_no) )
                    data=cur.fetchall()
                    for row in data:
                        print('ACCOUNT NO=',acct_no)
                        print()
                        print('ACCOUNT NAME=',row[1])
                        print()
                        print(' PHONE NUMBER=',row[2])
                        print()
                        print('ADDRESS=',row[3])
                        print()
```

```
                print('cr_amt=',row[4])
            if n == 4:
                acct_no=int(input('Enter your account number='))
                print()
                cur.execute('select * from customer_details where
acct_no='+str(acct_no) )
                if cur.fetchone() is  None:
                  print()
                  print('Invalid Account number')
                else:
                  cur.execute('select * from transactions where
acct_no='+str(acct_no) )
                  data=cur.fetchall()
                  for row in data:
                    print('ACCOUNT NO=',acct_no)
                    print()
                    print('DATE=',row[1])
```

```
                print()
                print(' WITHDRAWAL AMOUNT=',row[2])
                print()
                print('AMOUNT ADDED=',row[3])
                print()


        if n == 5:
            print('DELETE YOUR ACCOUNT')
            acct_no=int(input('Enter your account number='))

            cur.execute('delete from customer_details where
acct_no='+str(acct_no) )
            print('ACCOUNT DELETED SUCCESSFULLY')

        if n == 6:
```

```
            print('DO YO WANT TO EXIT(y/n)')
            c=input ('enter your choice=')

else:
    print('THANK YOU PLEASE VISIT AGAIN')
    quit()
```

CREATING TABLE IN SQL OF CUSTOMER's ACCOUNT DETAILS-CODE

```
import  mysql.connector as sql

conn=sql.connect(host='localhost',user='root',passwd='1234',database='ba
nk')

#if conn.is_connected():

    #print('connected succesfully')

cur = conn.cursor()

cur.execute('create table customer_details(acct_no int primary
key,acct_name varchar(25) ,phone_no bigint(25)
check(phone_no>11),address varchar(25),cr_amt float )')
```

SAMPLE

Column Name	Data Type	Allow Nulls
ID	int	☐
UserAccountID	int	☐
ForeignAccount	nvarchar(128)	☐
Nr	int	☐
Reason	nvarchar(1024)	☐
DateTime	datetime	☐
Amount	int	☐
isOutgoing	bit	☐

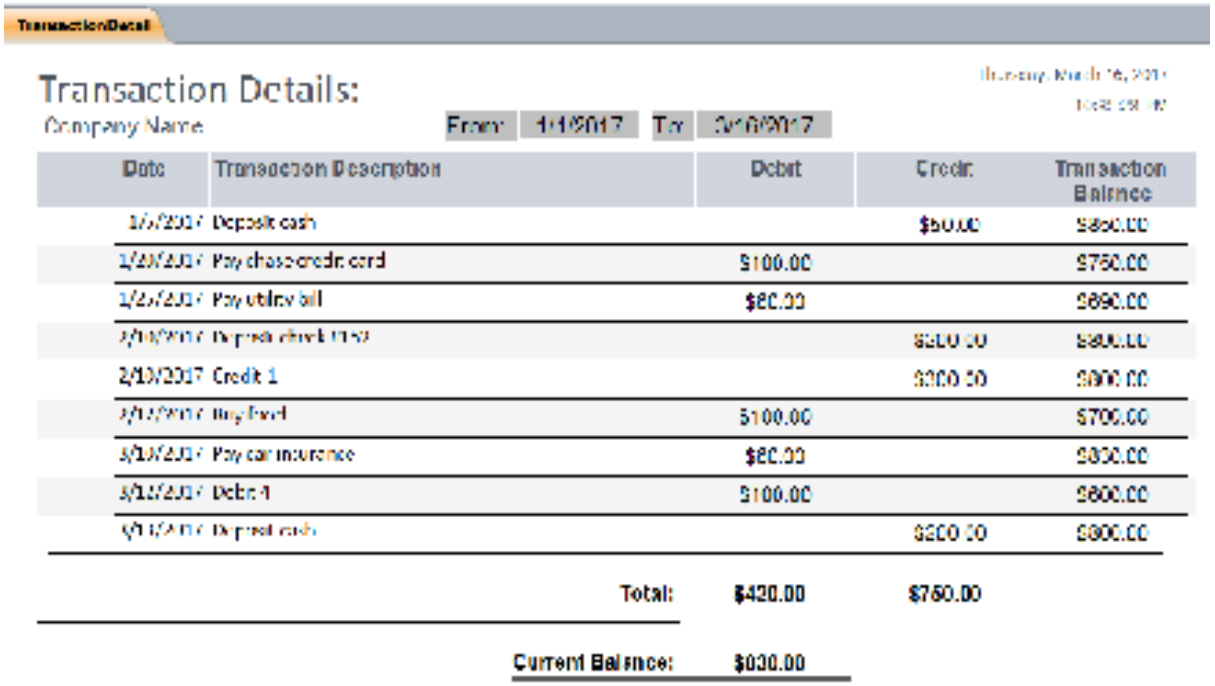
TRANSACTION TABLE CODE

```
import  mysql.connector as sql

conn=sql.connect(host='localhost',user='root',passwd='1234',database='ba
nk')

cur = conn.cursor()

cur.execute('create table transactions(acct_no int(11),date date
,withdrawal_amt bigint(20),amount_added bigint(20) )')
```

SAMPLE

USER'S TABLE-CODE

```
import  mysql.connector as sql

conn=sql.connect(host='localhost',user='root',passwd='1234',database='ba
nk')

cur = conn.cursor()

cur.execute('create table user_table(username varchar(25) primary
key,passwrd varchar(25) not null )')
```



Transaction Details:

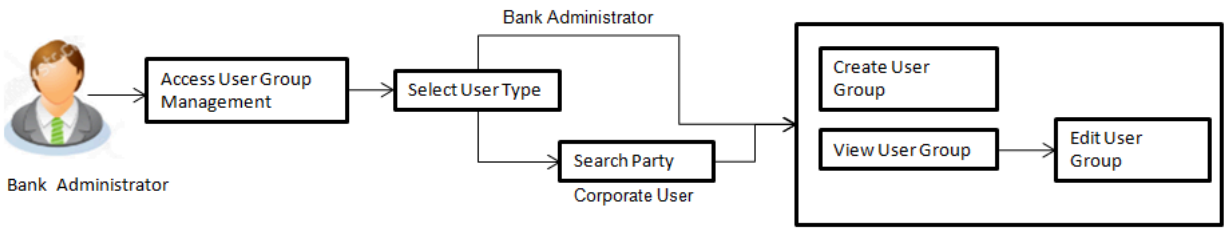
Company Name

From: 1/1/2017 To: 3/10/2017

Date	Transaction Description	Debit	Credit	Transaction Balance
1/1/2017	Deposit cash		$500.00	$500.00
1/20/2017	Pay chase credit card	$100.00		$750.00
1/25/2017	Pay utility bill	$80.00		$670.00
2/10/2017	Deposit check 1150		$200.00	$870.00
2/10/2017	Credit 1		$200.00	$870.00
2/11/2017	Buy Food	$100.00		$770.00
3/13/2017	Pay car insurance	$80.00		$690.00
3/12/2017	Debit 1	$100.00		$590.00
3/11/2017	Deposit cash		$200.00	$790.00
	Total:	$420.00	$760.00	
	Current Balance:	$930.00		

OUTPUT

```
Python 3.8.3 Shell
File  Edit  Shell  Debug  Options  Window  Help
2022-10-28 09:48:49.415873
1.REGISTER
*Python 3.8.3 Shell*
File  Edit  Shell  Debug  Options  Window  Help
2022-10-28 09:53:59.909496
1.REGISTER

2.LOGIN

enter your choice=2

Enter your Username=Manu

Enter your 4 DIGIT Password=1234


1.CREATE BANK ACCOUNT

2.TRANSACTION

3.CUSTOMER DETAILS

4.TRANSACTION DETAILS

5.DELETE ACCOUNT

6.QUIT

Enter your CHOICE=1

Enter your ACCOUNT NUMBER=123456789

Enter your ACCOUNT NAME=Manu

Enter your PHONE NUMBER=9897999779

Enter your place=Meerut

Enter your credit amount=1000

Account Created Succesfully!!!!!
```

BIBLIOGRAPHY

- *To develop this project many references were used:*

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2. https://www.google.com

3. https://www.python.org.in

4. https://www.mysql.org


BANKING
SYSTEMS

THANK YOU VERY MUCH

.....END.....