COMPUTER SCIENCE

PROJECT FILE

BANK MANAGEMENT SYSTEM

BY,

NITIN KM XII S

THE DELTA STUDY

Tower Road, Cochin - 1

Certificate

This is to certify that the project entitled

_____

is bonafide record of the work done by

_____

with roll number _____ of class _____,

The Delta Study, Kochi for the

subject _____ and the work

has been completed as per the requirement of the

Central Board of Secondary Education

during the academic year 20 - 20

Signature of the Internal Examiner

Signature of the External Examiner

Signature of the Principal

INDEX

Sl.NO	TITLE	Pg.NO
01.	Acknowledgment	2
02.	Introduction	3
03.	Technologies Used	4
04.	Source Code	5
05.	Output	11
06.	Bibliography	16

Acknowledgement

I take this opportunity to express my profound gratitude and deep regards to my mentor Mrs.Beejal N Ved ma’am for her exemplary guidance, monitoring and constant encouragement throughout the course of this project. The blessing, help and guidance given by her, time to time shall carry me a long way in the journey of life on which I'm about to embark.

I would like to thank my project mates Adil Mohamed and Rahan C Nisam for their valuable Time and cooperation in making this project and my vision successful.

Finally, yet importantly, I would like to thank our principal Mrs. Shireen Francis Ma’am, vice principal Mrs. Anitha Kuriappan Ma’am for their extensive support and for providing all the necessary Facilities in the making of this project

Introduction

A bank management system is an application that is used for opening a bank account, withdrawing money, depositing money etc.

The project contains the following modules -

1. **Database setup**: This module is used to set up the database in the system for the first time.

2. **Login management**: This module is used to keep track of all the users that have an account in this system.

3. **Account management**: This module is used to keep track of all the bank accounts that belong to a user and also allows the user to perform bank transactions.

Technologies Used

Software Specifications:-

Operating system : windows 10
Platform : python IDLE 3.10.2
Database : MySQL

Hardware Specifications:-

Processor : Dual core and above
Hard disk : 1000GB
Ram : 4096MB

Note: for Python-MySQL connectivity,
Following data have been used:-
Host- Localhost, user-root, password-123, database-bank

Source Code

```
import mysql.connector as msc

db = msc.connect(user = "root", host="localhost", password = "123"
)
cursor = db.cursor()

cursor.execute("create database bank;")
db.commit()

cursor.execute("use bank;")

cursor.execute("create table logininfo (username varchar(20) NOT N
ULL PRIMARY KEY, password varchar(20) NOT NULL);")

cursor.execute("create table accountinfo (accountNumber varchar(20
) NOT NULL PRIMARY KEY, name varchar(20) NOT NULL, phoneNumber var
char(15) NOT NULL, address varchar(50) NOT NULL, balance integer N
OT NULL);")

# THE FIRST PAGE THAT THE USER WILL SEE. GIVES THE OPTION TO SIGN
UP OR SIGN IN.

def page1():

    print("WELCOME !!! \n")
    print("1. SIGNUP")
    print("2. LOGIN \n")

    choice = int(input("Kindly click the number corresponding to
    the action that you want to perform : "))
    print("\n")

    if choice == 1:
        signup()
    elif choice == 2:
        login()
    else:
        print("Kindly select a valid option !!! \n")
        page1()
```

```
#THIS PAGE ALLOWS THE USER TO PERFORM ACTIONS IN HIS/HER ACCOUNT.

def page2():
    print("1. OPEN AN ACCOUNT")
    print("2. CHECK ACCOUNT BALANCE")
    print("3. DEPOSIT MONEY")
    print("4. WITHDRAW MONEY")
    print("5. SEE ACCOUNT INFORMATION")
    print("6. EXIT")
    print()

    opt = int(input("Kindly click on the number corresponding to
    the action that you want to perform - "))
    print()

    if opt==1:
        acc = int(input("Enter in your account number of choice –
        "))
        name = input("Enter in your full name - ")
        ph = int(input("Enter in your phone number - "))
        add = input("Enter in your address - ")
        print()

        # INSERTING DATA INTO DATABASE.

        cursor.execute("insert into accountinfo values(%s,%s,%s,%s
        ,%s);", (acc,name,ph,add,0))
        db.commit()
        print("---------------ACCOUNT SUCCESSFULLY ADDED----------
        -----\n")
        page2()

    elif opt == 2:

        n = input("Kindly enter in your account number : ")
        print()
        cursor.execute("select balance from accountinfo where acco
        untnumber = %s;", (n,))
        ans = cursor.fetchall()

        # WE PRINT ans[0][0] AS JUST PRINTING ANS WILL GIVE YOU
        [(0,)]

        print("-------- YOUR CURRENT BALANCE IS", ans[0][0], "rs –
        ---------","\n")
        page2()
```

```
    elif opt == 3:
        n1 = input("Kindly enter in your account number : ")
        n2 = int(input("Kindly enter in the money that you want to
        deposit : "))
        print()

        cursor.execute("update accountinfo set balance = balance+%
        s where accountnumber = %s;", (n2,n1))
        db.commit()

        cursor.execute("select balance from accountinfo where acco
        untnumber = %s;", (n1,))
        ans = cursor.fetchall()
        print("---------YOUR CURRENT BALANCE IS", ans[0][0], "rs -
        ---------","\n")
        page2()

    elif opt == 4:
        n1 = input("Kindly enter in your account number : ")
        n2 = int(input("Kindly enter in the money that you want to
        withdraw : "))
        print()

        cursor.execute("select balance from accountinfo where acco
        untnumber = %s;", (n1,))
        ans = cursor.fetchall()

        if ans[0][0] < n2:
            print("--------------NOT ENOUGH MONEY IN BANK ACCOUNT-
            --------------")
            print()
            page2()

        else:
            # WE DEDUCT THE AMOUNT AND THEN AGAIN RETRIEVE THE
            BALANCE.

            cursor.execute("update accountinfo set balance = balan
            ce-%s where accountnumber = %s;", (n2,n1))
            db.commit()

            cursor.execute("select balance from accountinfo where
            accountnumber = %s;", (n1,))
            ans = cursor.fetchall()
            print("---------- YOUR CURRENT BALANCE IS", ans[0][0],
            "rs ----------","\n")
            page2()
```

```
    elif opt == 5:

        n1 = input("Kindly enter in your account number : ")
        print()

        cursor.execute("select * from accountinfo where accountnum
        ber = %s;", (n1,))
        ans = cursor.fetchall()

        print("ACCOUNT NUMBER -", ans[0][0])
        print("NAME           -", ans[0][1])
        print("PHONE NUMBER   -", ans[0][2])
        print("ADDRESS        -", ans[0][3])
        print("BANK BALANCE   -", ans[0][4], "rs")
        page2()

    elif opt == 6:
        print("---------------THANK YOU---------------")
        print()

    else:
        print("INVALID OPTION, KINDLY CHOOSE A VALID OPTION.")
        page2()


# SECTION FOR SIGNUP.

def signup():

    print("---------------NEW USER--------------- \n")
    un = input("Enter in a username - ")
    pw = input("Enter in a password - ")
    print()

    cursor.execute("select username from logininfo;")

    # FOLLOWING COMMAND CHECKS IF USERNAME ALREADY EXISTS IN
    DATABASE.

    if (un,) in cursor.fetchall():
        print("----------CREDENTIALS ALREADY EXISTS, KINDLY
        LOGIN WITH YOUR DETAILS---------- \n")
        page1()
```

```
# IF IT IS A NEW USER, DATA IS ADDED TO DATABASE.

    else:
        cursor.execute("insert into logininfo values(%s,%s);", (un
        ,pw))
        db.commit()
        print("---------------SIGNED UP SUCCESSFULLY--------------
        -")
        page1()

# SECTION FOR LOGIN.

def login():

    print("---------------SIGN IN--------------- \n")
    un = input("Enter in a username - ")
    pw = input("Enter in a password - ")
    print()

    cursor.execute("select username from logininfo;")

    # CHECKS IF THE USERNAME IS EXISTANT IN THE DATABASE.

    if (un,) in cursor.fetchall():
        cursor.execute("select username from logininfo;")

        # GATHERS INDEX OF THE USERNAME.

        ind1 = cursor.fetchall().index((un,))
        cursor.execute("select password from logininfo;")

        if (pw,) in cursor.fetchall():
            cursor.execute("select password from logininfo;")

            # GATHERS INDEX OF THE PASSWORD.

            ind2 = cursor.fetchall().index((pw,))

            # THIS COMMAND MAKES SURE THAT THE PASSWORD BELONGS TO
            THE PARTICULAR USERNAME ENTERED.

            if ind1==ind2:
                print("---------------LOGGED IN SUCCESSFULLY------
                ---------\n")
                page2()
```

```
# IF THE PASSWORD ENTERED BELONGS TO SOME OTHER USERNAME, IT GIVES
 AN ERROR.
            else:
                print("---------------INCORRECT PASSWORD----------
                -----")
                page1()
        else:
            print("---------------INCORRECT PASSWORD-------------
            -")
            page1()

    else:
        print("--------------USERNAME DOES NOT EXIST IN DATABASE-
        -------------")
        page1()

page1()
```

Output

```
WELCOME !!!

1. SIGNUP
2. LOGIN

Kindly click the number corresponding to the action that you want to
perform : 1


---------------NEW USER---------------

Enter in a username - Suresh
Enter in a password - s505

---------------SIGNED UP SUCCESSFULLY---------------

WELCOME !!!

1. SIGNUP
2. LOGIN

Kindly click the number corresponding to the action that you want to
perform : 1

---------------NEW USER---------------

Enter in a username - Suresh
Enter in a password - s505

----------CREDENTIALS ALREADY EXISTS, KINDLY LOGIN
WITH YOUR DETAILS----------

WELCOME !!!

1. SIGNUP
2. LOGIN
```

```
Kindly click the number corresponding to the action that you want to
perform : 2


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

Enter in a username - Suresh
Enter in a password - s555

---------------INCORRECT PASSWORD---------------
WELCOME !!!

1. SIGNUP
2. LOGIN

Kindly click the number corresponding to the action that you want to
perform : 2


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

Enter in a username - Suresh
Enter in a password - s505

---------------LOGGED IN SUCCESSFULLY---------------

1. OPEN AN ACCOUNT
2. CHECK ACCOUNT BALANCE
3. DEPOSIT MONEY
4. WITHDRAW MONEY
5. SEE ACCOUNT INFORMATION
6. EXIT

Kindly click on the number corresponding to the action that you want
to perform - 1

Enter in your account number of choice - 1234
Enter in your full name - Suresh Mathew
Enter in your phone number - 9207871910
Enter in your address - Tower road, Fort Kochi

---------------ACCOUNT SUCCESSFULLY ADDED--------------
```

1. OPEN AN ACCOUNT
2. CHECK ACCOUNT BALANCE
3. DEPOSIT MONEY
4. WITHDRAW MONEY
5. SEE ACCOUNT INFORMATION
6. EXIT

Kindly click on the number corresponding to the action that you want to perform - 2

Kindly enter in your account number : 1234

---------- YOUR CURRENT BALANCE IS 0 rs ----------

1. OPEN AN ACCOUNT
2. CHECK ACCOUNT BALANCE
3. DEPOSIT MONEY
4. WITHDRAW MONEY
5. SEE ACCOUNT INFORMATION
6. EXIT

Kindly click on the number corresponding to the action that you want to perform - 3

Kindly enter in your account number : 1234
Kindly enter in the money that you want to deposit : 500

---------- YOUR CURRENT BALANCE IS 500 rs ----------

1. OPEN AN ACCOUNT
2. CHECK ACCOUNT BALANCE
3. DEPOSIT MONEY
4. WITHDRAW MONEY
5. SEE ACCOUNT INFORMATION
6. EXIT

Kindly click on the number corresponding to the action that you want to perform - 4

```
Kindly enter in your account number : 1234
Kindly enter in the money that you want to withdraw : 250

---------- YOUR CURRENT BALANCE IS 250 rs ----------

1. OPEN AN ACCOUNT
2. CHECK ACCOUNT BALANCE
3. DEPOSIT MONEY
4. WITHDRAW MONEY
5. SEE ACCOUNT INFORMATION
6. EXIT

Kindly click on the number corresponding to the action that you want
to perform - 4

Kindly enter in your account number : 1234
Kindly enter in the money that you want to withdraw : 500

---------------NOT ENOUGH MONEY IN BANK ACCOUNT------
---------

1. OPEN AN ACCOUNT
2. CHECK ACCOUNT BALANCE
3. DEPOSIT MONEY
4. WITHDRAW MONEY
5. SEE ACCOUNT INFORMATION
6. EXIT

Kindly click on the number corresponding to the action that you want
to perform - 5

Kindly enter in your account number : 1234

ACCOUNT NUMBER  - 1234
NAME            - Suresh Mathew
PHONE NUMBER    - 9207871910
ADDRESS         - Tower road, Fort Kochi
BANK BALANCE    - 250 rs
```

1. OPEN AN ACCOUNT
2. CHECK ACCOUNT BALANCE
3. DEPOSIT MONEY
4. WITHDRAW MONEY
5. SEE ACCOUNT INFORMATION
6. EXIT

Kindly click on the number corresponding to the action that you want to perform - 6

----------THANK YOU----------

Bibliography

- Computer Science with Python by Preeti Arora
- www.google.co.in
- www.mysql.com
- www.python.org
- www.youtube.com/edurekaIN (Edureka)