MINI PROJECT REPORT

on

Bank management system using Python

Submitted by

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BONAFIDE CERTIFICATE

Certified that this activity report for the course 21CSS101J -PROGRAMMING FOR PROBLEM SOLVING is the bonafide work of **ADITYA RAJ(RA2311004010332)&AMIT CHAUHAN(RA2311004010332)**who carried out the work under my supervision.

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TABLE OF CONTENTS

ABSTRACT

- The bank management system project is a program that keeps track of a client's bank account.

- This project demonstrates the operation of a banking account system and covers the essential functions of bank management software.

- It develops a project for resolving a customer's financial applications in a banking environment to meet the needs of an end banking user by providing multiple ways to complete banking chores.

- Additionally, this project is to provide additional features to the user's workspace that are not available in a traditional banking project.

- The project's bank management system is built on cutting-edge technologies. This project's main goal is to create software for a bank account management system.

- This project was designed to make it simple and quick to complete previously impossible processes with manual systems which are now possible with this software.

OBJECTIVE

- The goal of the bank management system project is to create organic and optimal software for interaction between the various banking components.

- This is to maximize the profit of the banking mechanism. The implementation of competent bank management procedures is significantly responsible for the successful optimization of the bank's productivity and activities.

- The project's main goal is to create an online banking system for banks. All banking work is done manually in the current system.

- To withdraw or deposit money, the user must go to the bank. Today, it is also hard to find account information for people who have accounts in the banking system.

INTRODUCTION

- A Bank Management System (BMS) is a software application designed to streamline and automate banking operations. It's a comprehensive solution that assists in managing various banking activities, including customer management, account management, transaction management, and reporting.

- The BMS is developed using various programming languages such as C++, Django, Python, PHP, Java, JavaScript, and C. It keeps track of a client's bank account and provides multiple ways to complete banking tasks. Additionally, this project is to provide additional features to the user's workspace that are not available in a traditional banking project.

- The main purpose of developing this system is to design an application that could store bank data and provide an interface for retrieving customer-related details with 100% accuracy. This system also allows the user to add new customer accounts, delete accounts, and modify existing user account information.

- The BMS addresses issues such as security in manual management of bank accounts and inefficiencies in online banking transactions. It's built on cutting-edge technologies and is designed to be secure, scalable, flexible, and cost-effective.

- In summary, a Bank Management System is an essential software system for any financial institution to manage its operations effectively. It helps in resolving a customer's financial applications in a banking environment to meet the needs of an end banking user. It is a strategic process that transforms concepts and requirements into tangible software structures, ensuring seamless functionality and fueling innovation.

SYSTEM DESIGN AND SOURCE CODE

❖ SOFTWARE REQUIRED:

- MICROSOFT WINDOWS® 11 ASOPERATING SYSTEM.
- PYTHON AS AN INTERPRETER.
- MYSQL AS BACK-END SEVER WITHDATABASE FOR TESTING.
- MS-WORD 2017 AND CANVA FOR DOCUMENTATION.

❖ SOURCE CODE:

```
###********************************************####
####     HEADER FILE USED IN PROJECT                        ####
####********************************************####

import colorama
from colorama import Fore
import time as t
import random
from playsound import playsound
import datetime as dt
import mysql.connector as c


def ti(x):
    print(x)
    t.sleep(1.5)


bal=int



####********************************************####
####      1.Connecting Python with SQL       ####
####       (Locating the databaes)          ####
####********************************************####
ca=c.connect(host='localhost',user='root',passwd='9827',datab
```

```
ase='bank')


e='YES' or "yes" or 'Yes'
v='YES' or "yes" or 'Yes'

co=ca.cursor()


####********************************************####
####         ****Creating Database****       ####
####********************************************####

c1=("""create database if not exists bank""")
co.execute(c1)

####********************************************####
####         ****Creating tables****         ####
####********************************************####
c1=("""create table if not exists AddNewCustomer(accountno
int primary key ,Aadharid varchar(12) not null,Name
varchar(20) not null,address varchar(20) not null,areacode int
not null,phoneno int not null,email varchar(30) not null
)""")
co.execute(c1)

c2=("""create table if not exists cusid(username varchar(20)
primary key,password varchar(50) not null)""")
co.execute(c2)


c3=("""create table if not exists manage(username varchar(50)
primary key,password varchar(50) not null)""")
co.execute(c3)

c4=("""create table if not exists transaction(accountno int
primary key,opening_balance int not null, balance int not
null)""")
co.execute(c4)
```

```
print("="*70)
print(" "*15,end=")

print('''\t\t+----------------+----------------+
\t\t\t|                                 |
\t\t\t|      |B_A_N_K_|  |M_A_N_A_G_E_M_E_N_T_|      |
\t\t\t|                                 |
\t\t\t+----------------+----------------+''')

print("="*70)




ram=random.randint(1,4)
if (ram==1):
    print("*"*80)
    print('''  Get our {Home lone} at the rate of 7.5% Only for
selected users like you..''')
    print("*"*80)
if (ram==2):
    print("*"*80)
    print('''  Get our {Private lone} at the rate of 12.5% Only for
selected users like you..''')
    print("*"*80)
if (ram==3):
    print("*"*80)
    print('''  Get our {Gold lone} at the rate of 6.5% Only for
selected users like you..''')
    print("*"*80)
if (ram==4):
    print("*"*80)

    print('''  Get our {Car lone} at the rate of 7.5% Only for
selected users like you..''')
    print("*"*80)



####**********************************************####
#### USING PLAYSOUND(ENHNCING USER INTERFACE) ####
```

```
####*****************************************####

playsound('D://py//play.mp3')

####*****************************************####
####*****************************************####


while e=='YES' or "yes" or 'Yes':

   print("*"*80)
   txt=("""/****|WELCOME TO BANK MANAGEMENT
SYSTEM|****\\""")

   x = txt.center(82)
   print(x)
   print("*"*80)
   print('''press 1 for EMPLOYEE
press 2 for CUSTOMER
press 3 for MANAGER
press 4 for HEAD
press 5 for Exit''')
   op=int(input(''))

   if op==1:
      ti("Loading Employee panal...")
      print("*"*50)
      print(" "*15,end='')
      print("EMPLOYEE PANEL")
      print("*"*50)
      print('''press 1 for new employee
press 2 for existing employee
press 3 to exit''')
      op1=int(input(''))

      if op1==1:
         ti("Loading...")
         username=input("Enter your username number :")
         password=input("Enter your password:")
         confirmpasswd=input("Confirm  your password:")
```

```
        if password==confirmpasswd:
            query="insert into manage"
values('{}','{}')".format(username,password)
            co.execute(query)
            ca.commit()

            e=input("do you want to continue?(yes or no)")
            if e=='yes':
                continue
            else:
                break

        else:
            print('your confirm password is incorrect')

            print('Try again')


            e=input("do you want to continue?(yes or no)")
            if e=='yes':
                continue
            else:
                break
    elif op1==2:
        print("*"*50)
        print(" "*15,end=")
        print("Employee Panel")
        print("*"*50)
        ti("Loading Customer panal...")
        username=input('Enter your username:')
        password=input('Enter your password:')

        query="select * from manage where username='{}' and
password='{}'".format(username,password)
        co.execute(query)

        data=co.fetchall()
        if data:
            for i in data:
                print(':) Logined Successefully.....')
        else:
```

```
            print(':( Logined Unsuccesseful.....')
        while v=='YES' or "yes" or 'Yes':
            if any(data):


                print("1.ACCOUNTS MANAGEMENT")
                print("2.BALANCE")
                print("3.VIEW CUSTOMER DETAILS")
                print('4.EXIT')
                op3=int(input('ENTER YOUR CHOICE'))

            if op3==1:
                print("Loading...")
                t.sleep(1.5)
                print('1.NEW CUSTOMER')

                print('2.DELETE EXISTING ACCOUNT')
                op4=int(input('ENTER YOUR CHOICE:'))

                if op4==1:

accountno=random.randrange(1000000,9999999,10)
                    print("your accountno is",accountno)
                    Aadharid=input("enter your Aadhar ID:")
                    name=input('Enter custumer name  :')
                    address=input('Enter custumer address  :')
                    areacode=int(input('Enter custumer area PIN
CODE  :'))
                    phoneno=int(input('Enter custumer PHONE
NUMBER  :'))
                    email=input('Enter custumer email  :')
                    ob=int(input('Enter custumer Opening balance'))
                    bal=ob


                    query="insert into AddNewCustomer
(accountno,Aadharid,Name,address,areacode,phoneno,email)v

alues({},'{}','{}','{}',{},{},'{}')".format(accountno,Aadharid,name,a
ddress,areacode,phoneno,email)
                    co.execute(query)
```

```
                ca.commit()


                query2=("insert into Transaction
(accountno,opening_balance,balance)values({},{},{})").format(a
ccountno,ob,bal)
                co.execute(query2)
                ca.commit()

                print("THANK YOU FOR USING OUR
SOFTWARE,YOUR ACCOUNT IS SUCCESFULLY CREATED")

                v=input("do you want to continue?(yes or no)")
                if v=='yes':
                   continue
                else:
                   break


            elif op4==2:
                print("Loading...")
                t.sleep(1.5)
                acc=input("ENTER YOUR ACCOUNT NUMBER:")
                use=input("ENTER YOUR USERNAME:")


                info6=co.execute("delete from Transaction where
accountno='{}'".format(acc))

                info7=co.execute("delete from AddNewCustomer
where accountno='{}'".format(acc))

                co.execute(info6)
                co.execute(info7)
                ca.commit()


                print("THANK YOU FOR USING OUR
SOFTWARE,YOUR ACCOUNT IS SUCCESFULLY DELETED")
```

```
                v=input("do you want to continue?(yes or no)")
                if v=='yes':
                    continue
                else:
                    break

            elif op3==2:
                accountno=int(input('Enter your account number
:'))
                query="select balance from Transaction where
accountno="+str(accountno)
                co.execute(query)
                data3=co.fetchall()
                toda=dt.date.today()



                print('"Date:-'",toda)
                print('"Your current balance is '" , data3)
                ram=random.randint(1,4)

                if (ram==1):
                    print("*"*80)
                    print('"  Get our {Home lone} at the rate of 7.5%
Only for selected users like you"')
                    print("*"*80)
                if (ram==2):
                    print("*"*80)
                    print('"  Get our {Private lone} at the rate of 12.5%
Only for selected users like you "')
                    print("*"*80)
                if (ram==3):
                    print("*"*80)
                    print('"  Get our {Gold lone} at the rate of 6.5%
Only for selected users like you "')
                    print("*"*80)
                if (ram==4):
                    print("*"*80)
                    print('"  Get our {Car lone} at the rate of 7.5% Only
for selected users like you "')
```

```
            print("*"*80)


        print("THANK YOU FOR USING OUR SOFTWARE!!!!")


        v=input("do you want to continue?(yes or no)")
        if v=='yes':
            continue
        else:
            break



    elif  op3==3:
        accountno=int(input('Enter your account number
:'))
        query="select * from AddNewCustomer where
accountno=" + str(accountno)
        co.execute(query)
        data=co.fetchall()


        for row in data:

            print("*"*50)
            print(" "*15,end=")

            print("CUSTOMER DETAILS")

            print("*"*50)
            print("Account Number: ", row[0])
            print("Aadhar no:",row[1])
            print("Person name:",row[2])
            print("Residential address:",row[3])
            print("area code:",row[4])
            print("phone number:",row[5])
            print("email:",row[6])


            info5="select * from Transaction where
```

```
accountno=" + str(accountno)
                    co.execute(info5)
                    data2=co.fetchall()
                    v=input("do you want to continue?(yes or no)")

                    if v=='yes':
                       continue
                    else:
                       break

              elif  op3==4:
                 print("THANK  YOU!!!!  VISIT AGAIN!!!!")



    elif op==2:
        print("*"*50)
        print(" "*15,end=")
        print("CUSTOMER PANAL")
        print("*"*50)
        print("'press 1 for new User
press 2 for existing User
press 3 to exit"')
        op1=int(input("))


        if (op1==1):
           username=input("Enter your username number :")
           password=input("Enter your password:")
           confirmpasswd=input("Confirm your password:")

           if password==confirmpasswd:
              query="insert into cusid
values('{}','{}')".format(username,password)
              co.execute(query)
              ca.commit()

              v=input("do you want to continue?(yes or no)")
              if v=='yes':
                 continue
              else:
```

```
            break
        elif op1==2:
            username=input('Enter your username:')
            password=input('Enter your password:')


            query="select * from cusid where username='{}' and
password='{}'".format(username,password)
            co.execute(query)
            data=co.fetchall()


            if data:
                for i in data:
                    print(':) Logined Successefully.....')
            else:
                print(':( Logined Unsuccesseful.....')



            while v=='YES' or "yes" or 'Yes':


                if any(data):
                    print("*"*50)
                    print(" "*15,end=")

                    print("CUSTOMER PANAL")
                    print("*"*50)


                    print("1.BALANCE")
                    print("2.VIEW YOU'R DETAILS")
                    print('3.EXIT')
                    op1=int(input('ENTER YOUR CHOICE'))
                    if (op1==1):
                        accountno=int(input('Enter your account number
:'))
                        query="select balance from Transaction where
accountno="+str(accountno)
                        co.execute(query)
```

```
                data3=co.fetchall()
                toda=dt.date.today()

                print("'Date:-'",toda)
                print("'Your current balance is '" , data3)
                v=input("do you want to continue?(yes or no)")
                if v=='yes':

                    continue
                else:
                    break


            elif (op1==2):
                accountno=int(input('Enter your account number
:'))
                query="select * from AddNewCustomer where
accountno=" + str(accountno)
                co.execute(query)
                data=co.fetchall()
                for row in data:
                    print("*"*50)
                    print(" "*15,end=")

                    print("CUSTOMER DETAILS")

                    print("*"*50)
                    print("Account Number: ", row[0])
                    print("Aadhar no:",row[1])

                    print("Person name:",row[2])
                    print("Residential address:",row[3])
                    print("area code:",row[4])
                    print("phone number:",row[5])
                    print("email:",row[6])


                    info5="select * from Transaction where
accountno=" + str(accountno)
                    co.execute(info5)
                    data2=co.fetchall()
```

```
        v=input("do you want to continue?(yes or no)")
        if v=='yes':
            continue
        else:
            break


elif (op1==3):
    break
```

RESULTS (SCREENSHOTS)

```
mysql> use bank
Database changed
mysql> show tables;
+----------------+
| Tables_in_bank |
+----------------+
| addnewcustomer |
| addnewemployee |
| cusid          |
| manage         |
| transaction    |
+----------------+
5 rows in set (0.07 sec)
mysql> desc transaction;
+-----------------+------+------+-----+---------+-------+
| Field           | Type | Null | Key | Default | Extra |
+-----------------+------+------+-----+---------+-------+
| accountno       | int  | NO   | PRI | NULL    |       |
| opening_balance | int  | NO   |     | NULL    |       |
| balance         | int  | NO   |     | NULL    |       |
+-----------------+------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql> select * from addnewcustomer;
Empty set (0.01 sec)

mysql> select * from addnewemployee;
Empty set (0.01 sec)

mysql> select * from cusid;
Empty set (0.01 sec)
```

```
mysql> desc addnewcustomer;
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| accountno | int         | NO   | PRI | NULL    |       |
| Aadharid  | varchar(12) | NO   |     | NULL    |       |
| Name      | varchar(20) | NO   |     | NULL    |       |
| address   | varchar(20) | NO   |     | NULL    |       |
| areacode  | int         | NO   |     | NULL    |       |
| phoneno   | int         | NO   |     | NULL    |       |
| email     | varchar(30) | NO   |     | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
7 rows in set (0.01 sec)

mysql> desc addnewemployee;
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| ecode    | int         | NO   | PRI | NULL    |       |
| Aadharid | varchar(12) | NO   |     | NULL    |       |
| Name     | varchar(20) | NO   |     | NULL    |       |
| address  | varchar(20) | NO   |     | NULL    |       |
| areacode | int         | NO   |     | NULL    |       |
| phoneno  | int         | NO   |     | NULL    |       |
| email    | varchar(30) | NO   |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
7 rows in set (0.00 sec)

mysql> desc cusid;
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| username | varchar(20) | NO   | PRI | NULL    |       |
| password | varchar(50) | NO   |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
2 rows in set (0.00 sec)

mysql> desc mange;
ERROR 1146 (42S02): Table 'bank.mange' doesn't exist
mysql> desc manage;
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| username | varchar(50) | NO   |     | NULL    |       |
| password | varchar(50) | NO   |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
2 rows in set (0.00 sec)
```

o/p;

```
==========================================================================
                      +---------------+---------------+
                      |                               |
                      |       |BANK|   |MANAGEMENT|    |
                      |                               |
                      +---------------+---------------+
==========================================================================
**************************************************************************
  Get our {Gold lone} at the rate of 6.5% Only for selected users like you..
**************************************************************************
**************************************************************************
                 /****|WELCOME TO BANK MANAGEMENT SYSTEM|****\
**************************************************************************
press 1 for EMPLOYEE
press 2 for CUSTOMER
press 3 for MANAGER
press 4 for Exit
Loading Employee panal...
**************************************************
                  EMPLOYEE PANEL
**************************************************
press 1 for new employee
press 2 for existing employee
press 3 to exit
1
Loading...
Enter your username number :RAM
Enter your password:982
Confirm  your password:982
Enter You'r detail
Your accountno is:- 311
enter your Aadhar ID:
```

```
Enter your username number :RAM
Enter your password:982
Confirm  your password:982
Enter You'r detail
Your accountno is:- 311
enter your Aadhar ID:123456789
Enter custumer name  :SDA
Enter custumer address  :987365421
Enter custumer area PIN CODE  :46203
Enter custumer PHONE NUMBER  :98888886
Enter custumer email  :AWE@DD.BOM
do you want to continue?(yes or no)
```

```
*********************************************************************************
                /****|WELCOME TO BANK MANAGEMENT SYSTEM|****\
*********************************************************************************
press 1 for EMPLOYEE
press 2 for CUSTOMER
press 3 for MANAGER
press 4 for Exit
3
press 1 for EMPLOYEES DETAIL
press 2 for Find EMPLOYEE CODE
press 3 to Remove EMPLOYEE
press 4 to Exit
ENTER YOUR CHOICE1
Enter your Employee code  :
```