COLONEL's ACADEMY MHOW

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PROJECT REPORT ON

BANK MANAGEMENT SYSTEM

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CLASS : XII

SUBJECT : INFORMATICS PRACTICES

SUB CODE : 065

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ACKNOWLEDGEMENT

Apart from the efforts of both of us the success of any project depends largely on the encouragement and guidelines of many others. I take this opportunity to express our gratitude to the people who have been instrumental in the successful completion of this project.

We express deep sense of gratitude to almighty God for giving me strength for the successful completion of the project.

We express our heartfelt gratitude to our parents for constant encouragement while carrying out this project.

We gratefully acknowledge the contribution of the individuals who contributed in bringing this project up to this level, who continues to look after us despite our flaws,

We express our deep sense of gratitude to the luminary **The Principal, Colonels Academy MHOW** who has been continuously motivating and extending their helping hand to us.

We express our sincere thanks to the academician The **Vice Principal Colonels Academy MHOW** for constant encouragement and the guidance provided during this project

We are overwhelmed to express our thanks to **The Administrative Officer, Colonels Academy MHOW** for providing me an infrastructure and moral support while carrying out this project in the school.

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The guidance and support received from all the members who contributed and who are contributing to this project, was vital for the success of the project. We are grateful for their constant support and help.

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1.Problem Investigation:

1.1 Introduction To Exisiting System:

Stifle bank is one of the most popular bank in Indore. At present there are 5 branches of the bank across Indore District and at present there are 200 employees working at several departments of the bank. At present Stifle bank is serving 900 account holders by various banking facilities. Employees of the Stifle bank are playing a key role in the progression of the bank.

Currently Stifle bank is using offline system to manage its account holders information like creating new account, managing existing accounts etc. If a account holder has to update his information or has to create a new account or to make a transaction he/she need to go to the bank.

1.2 Goals and Need of Project:

Stifle bank uses offline system to manage bank activities. They are daily facing problems because of their offline system . Some account holders are demanding that there should be a online banking system which they can use from their homes to update their account details. This would save their time as they no longer need to wait in bank lines in the time of corona pandamic.

1.3 Objectives:

The objective of this project is that the interface will be designed user friendly and the functions will be displayed in a simple manner.

The system we are going to develop will give remedies for the problems that are currently faced by our clients. Shifting to new system can acquire advantages such as saving time and space.

2. Theory of System:

2.1 Concept of Project:

The basic concept behind this project is to convert all basic banking operations of Stifle bank to online computerized system. This system can be used to save a lot of time and will decrease the work load on its employees. This system will also decrease the rate of transmission of corona virus.

3. Project Planning:

3.1 Project Resources:

3.1.1 Software and hardware Requirements

In order to develop this project we have used:

Python GUI : Python IDE version 3.9

Database : MySQL .

Operating system : Windows 7

Processor : Pentium IV

RAM : 1 GB

HARDISK : 100 GB or higher

3.1.2 Time

For developing this project we required 6 months time.

4. Feasibility Study

4.1 Technical Feasibility

Developing this project we required two software, Python IDE and MySQL database, which are easily available which makes the project technically feasible to make.

4.2 Economical Feasibility

All the software required in developing this project are easily and freely available on internet which makes the project easy and economical.

5. System Analysis

5.1 Information Gathering

5.1.1 Onsite Observation

For gathering information we visited Stifle Bank at Mhow Naka. When we visited Stifle bank, we observed a lot of things where we found certain shortcomings like the system they were using can only be run on high end computers and there was only one computer which was used to manage banking activities.

5.1.2 Interview

We interviewed Mr. Manoj Verma, the manager of Stifle bank and discussed the problems we faced their.

5.1.3 Questionnaries :

Q.1 Which kind of system you used in your hotel?

Ans: Offline banking system

Q.2 What are the problem you faced to manage?

Ans: We are facing problems like there is only one computer on which we can run our management system and sometime due to some technical problems we are unable to use computerized banking system because it requires a lot of maintenance.

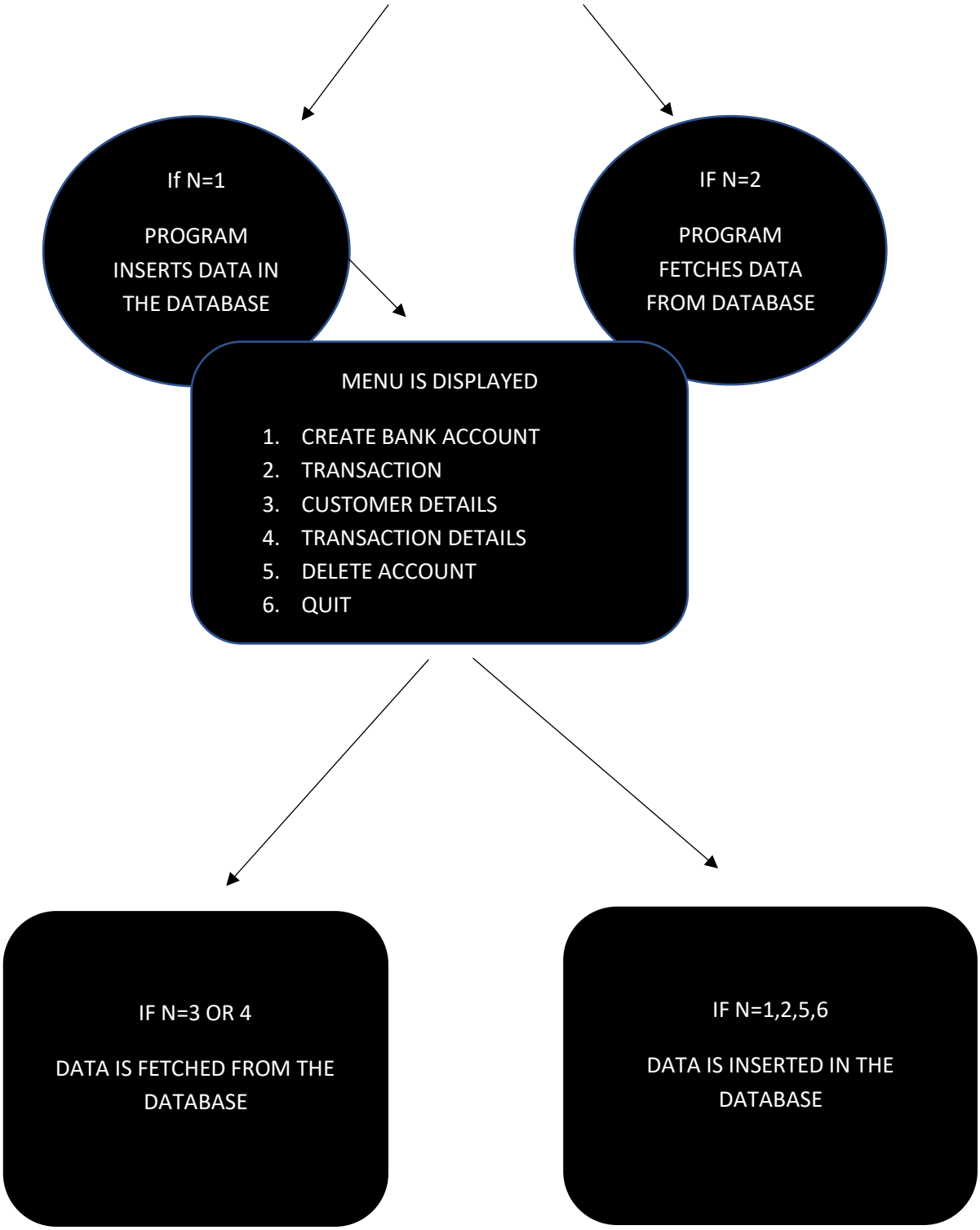
5.2 Limitations of Current System

Stifle bank uses offline banking management system which requires high end computers to work. This creates a lot a problem because the cost of maintenance of their computer is very high and requires maintenance thrice a week which is a big problem in banking as till the maintenance is completed the account holders can't perform banking activities.

5.3 Merits of Proposed System

The interface will be designed user friendly and the functions will be displayed in a simple manner. The system we are going to develop will give remedies for the problems that are currently faced by our clients. Shifting to our system can acquire advantages such as saving time , space and accuracy. This will increase the efficiency in daily banking activities

6.Flow Chart



7. Database Design

Customer details Table :

```
mysql> select*from customer_details;
+---------+--------------+------------+---------+--------+
| acct_no | acct_name    | phone_no   | address | cr_amt |
+---------+--------------+------------+---------+--------+
|     123 |  aman thakur | 9546666913 |  mhow   | 100000 |
+---------+--------------+------------+---------+--------+
1 row in set (0.00 sec)
```

Transactions Table :

```
mysql> select*from transactions;
+---------+------------+----------------+--------------+
| acct_no | date       | withdrawal_amt | amount_added |
+---------+------------+----------------+--------------+
|  712003 | 2020-12-20 |           2000 |            0 |
|  712003 | 2020-12-20 |              0 |        30000 |
+---------+------------+----------------+--------------+
2 rows in set (0.00 sec)
```

User table :

```
mysql> select*from user_table;
+-----------------+---------+
| username        | passwrd |
+-----------------+---------+
|  Medhansh_verma | 1234    |
+-----------------+---------+
1 row in set (0.00 sec)
```

8. Tools Used

8.1 Front End: Python Idle 3.9

8.2 Back End : Mysql

9. Source Code :

9.1 Main Bank Code:

```
import  mysql.connector as sql
conn=sql.connect(host='localhost',user='root',passwd='root',database='bank')
cur = conn.cursor()
print('=========================WELCOME TO STIFLE BANK================================')
import datetime as dt
print(dt.datetime.now())
print('1.REGISTER')
print()
print('2.LOGIN')
print()



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

9.2 Main Menu Code :

```
import datetime as dt
import  mysql.connector as sql
conn=sql.connect(host='localhost',user='root',passwd='root',database='bank')
cur = conn.cursor()

print('**********************************************************************')

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()
                    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()
                              print('**********************************************************************')
```

```
    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('**********************************************************************************')
              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!!!!!')
                   print('**********************************************************************************')


              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!!!!!')
                    print('**********************************************************************************')
```

```
                print()
                print('PHONE NUMBER: ',row[2])
                print()
                print('ADDRESS: ',row[3])
                print()
                print('cr_amt: ',row[4])
                print('**********************************************************************')
        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()
                    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 SUCCESFULLY')
            print('**********************************************************************')
        if n == 6:
            print('DO YOU WANT TO STAY ON THIS PAGE(y/n)')
            c=input ('enter your choice: ')



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

9.3 Table Code :

File Edit Format Run Options Window Help

```
import  mysql.connector as sql
conn=sql.connect(host='localhost',user='root',passwd='root',database='bank')
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 )')
```

9.4 Transactions Table :

File Edit Format Run Options Window Help

```
import  mysql.connector as sql
conn=sql.connect(host='localhost',user='root',passwd='root',database='bank')
cur = conn.cursor()
cur.execute('create table transactions(acct_no int(11),date date ,withdrawal_amt bigint(20),amount_added bigint(20) )')
```

9.5 User Table :

File Edit Format Run Options Window Help

```
import  mysql.connector as sql
conn=sql.connect(host='localhost',user='root',passwd='root',database='bank')
cur = conn.cursor()
cur.execute('create table user_table(username varchar(25) primary key,passwrd varchar(25) not null )')
```

10. Output :

```
============== RESTART: C:\Users\haman\Desktop\bank\main bank.py ==============
==========================WELCOME TO STIFLE BANK=================================
2020-12-20 12:46:47.376779
1.REGISTER

2.LOGIN

enter your choice: 1

*********************************************************************************
Enter a Username: Medhansh_verma

Enter a 4 DIGIT Password: 1234


USER created succesfully
*********************************************************************************

1.CREATE BANK ACCOUNT

2.TRANSACTION

3.CUSTOMER DETAILS

4.TRANSACTION DETAILS

5.DELETE ACCOUNT

6.QUIT

Enter your CHOICE:
```

```
==========================WELCOME TO STIFLE BANK=================================
2020-12-20 12:55:59.343469
1.REGISTER

2.LOGIN

enter your choice: 2

*********************************************************************************
Enter your Username: Medhansh_verma

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: 0712003

Enter your ACCOUNT NAME: Aman Singh Thakur

Enter your PHONE NUMBER: 9669440054

Enter your place: Mhow

Enter your credit amount: 10000

Account Created Succesfully!!!!!
**********************************************************************************
```

```
**********************************************************************************

1.CREATE BANK ACCOUNT

2.TRANSACTION

3.CUSTOMER DETAILS

4.TRANSACTION DETAILS

5.DELETE ACCOUNT

6.QUIT

Enter your CHOICE: 3

**********************************************************************************
Enter your account number: 0712003

ACCOUNT NO:  712003

ACCOUNT NAME:   Aman Singh Thakur

PHONE NUMBER:  9669440054

ADDRESS:   Mhow

cr_amt:  38000.0
**********************************************************************************
```

```
********************************************************************************

1.CREATE BANK ACCOUNT

2.TRANSACTION

3.CUSTOMER DETAILS

4.TRANSACTION DETAILS

5.DELETE ACCOUNT

6.QUIT

Enter your CHOICE: 2

********************************************************************************
Enter Your Account Number: 0712003

1.WITHDRAW AMOUNT

2.ADD AMOUNT

********************************************************************************

Enter your CHOICE: 2

Enter amount to be added: 30000

Account Updated Succesfully!!!!!
********************************************************************************
```

```
1.CREATE BANK ACCOUNT

2.TRANSACTION

3.CUSTOMER DETAILS

4.TRANSACTION DETAILS

5.DELETE ACCOUNT

6.QUIT

Enter your CHOICE: 2

********************************************************************************
Enter Your Account Number: 0712003

1.WITHDRAW AMOUNT

2.ADD AMOUNT

********************************************************************************

Enter your CHOICE: 1

Enter withdrawl amount: 2000

Account Updated Succesfully!!!!!
********************************************************************************
```

```
**********************************************************************************

1.CREATE BANK ACCOUNT

2.TRANSACTION

3.CUSTOMER DETAILS

4.TRANSACTION DETAILS

5.DELETE ACCOUNT

6.QUIT

Enter your CHOICE: 4

**********************************************************************************
Enter your account number=0712003

ACCOUNT NO:  712003

DATE:  2020-12-20

WITHDRAWAL AMOUNT:  2000

AMOUNT ADDED:  0

**********************************************************************************
ACCOUNT NO:  712003

DATE:  2020-12-20

WITHDRAWAL AMOUNT:  0

AMOUNT ADDED:  30000

**********************************************************************************
```

```
**********************************************************************************

1.CREATE BANK ACCOUNT

2.TRANSACTION

3.CUSTOMER DETAILS

4.TRANSACTION DETAILS

5.DELETE ACCOUNT

6.QUIT

Enter your CHOICE: 5

**********************************************************************************
DELETE YOUR ACCOUNT
Enter your account number: 0712003
ACCOUNT DELETED SUCCESFULLY
**********************************************************************************

**********************************************************************************

1.CREATE BANK ACCOUNT

2.TRANSACTION

3.CUSTOMER DETAILS

4.TRANSACTION DETAILS

5.DELETE ACCOUNT

6.QUIT

Enter your CHOICE: 6

**********************************************************************************
DO YOU WANT TO STAY ON THIS PAGE(y/n)
enter your choice: n
```

11. Testing

11.1 Objective Of Testing

Testing is a process of executing a program with the intent of finding an error, eliminating errors to procedure error free software which most the specification, the of testing is to identify the faults as quickly as possible after they occur and to identify the cause of the fault so that the remedial steps can be taken. To make the project more robust , testing is vital part of any software development process.

Testing Principle:

1. All the test should be traceable to the customer requirement.
2. Testing should be planned long before the testing begins.
3. Testing should begin in small and Process towards testing in large.

11.2 Testing method:

Different approaches to testing are as follows:

White Box Testing

White box testing is attest case design method uses the control structure of procedural design to drive test case. White box testing guarantee that all independent path with the modules have been exercised at least once and all logical decision are tested on their true and false sides. All the data structure are examined for various validations were designed for various conditional path testing.

Black Box Testing

Black Box testing focuses on the functional requirement of the software. Black box testing attempts to find error in the following categories:

1. Incorrect or missing functions.
2. Interface error.
3. Error in the data or external database access.
4. Initialization and termination errors.

12. Conclusion.

At present our project is capable in creating account , updating account , making transactions and deleting account offline with less software and hardware requirements. . But this project can be extended in future to meet the requirements of more advanced present day scenario for example allowing customers to use

the banking system online. To do it we have to convert it into a web application from a desktop application which will make the project more usable.

13. Bibliography

I referred to the study material provided by school, as well as the online books provided by the C.B.S.E. Board.

I also researched and developed the things required from internet regarding the topics.

We used the following websites:

- www.google.co.in
- www.w3schools.com
- www.programiz.com
- www.stalkoverflow.com
- www.geeksforgeeks.org