USPC JAIN PUBLIC SCHOOL

ACADEMIC YEAR: 2026-2027

SUBJECT: COMPUTER SCIENCE WITH PYTHON (083)

PROJECT REPORT

ON

BANK MANAGEMENT SYSTEM

SUBMITTED BY:

NAME:

ROLL NO.:

SUBMITTED TO:

SUMIT SADANA

CLASS:

CERTIFICATE

This is to certify that the project entitled "BANK MANAGEMENT SYSTEM" is a bonafide work carried out by _____ of Class XII C, during the academic year 2025-2026, in partial fulfillment of the requirements for the Computer Science project under my supervision.

Project Guide / Teacher

Name: SUMIT SADANA

Signature: _____

Date: _____

EXTERNAL EXAMINER:

Name: _____

Signature: _____

Seal: _____

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to SUMIT SADANA (Project Guide / Teacher) for their valuable guidance, encouragement, and constant support throughout the completion of this project.

I am also thankful to USPC JAIN PUBLIC SCHOOL for providing me with the necessary facilities and environment to complete this project successfully.

I would like to thank my parents and friends for their cooperation, motivation, and moral support during the development of this project.

Finally, I thank everyone who directly or indirectly contributed to the successful completion of my Bank Management System project.

Name: _____

Class / Roll No:

Date: _____

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1. INTRODUCTION

The Bank Management System is a computerized system developed to manage basic banking operations efficiently. This project helps in maintaining customer account details, transaction records, and bank-related activities in an organized and systematic manner. It reduces manual work and improves the accuracy, speed, and security of banking operations.

The project is developed using the Python programming language with MySQL database, which ensures reliable data storage and easy access to banking information.

2. OBJECTIVES OF THE PROJECT

- The main objectives of the Bank Management System are:
- To computerize banking operations
- To manage customer account details efficiently
- To perform deposit and withdrawal transactions
- To maintain transaction records securely
- To reduce paperwork and manual errors
- To provide quick access to account information
- To improve overall banking efficiency

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3. SOFTWARE AND HARDWARE REQUIREMENTS

Software Requirements:

- Operating System: Windows / Linux
- Programming Language: Python
- Database: MySQL
- Python Library: mysql.connector
- IDE: IDLE / PyCharm / VS Code

Hardware Requirements:

- Processor: Intel i3 or higher
- RAM: Minimum 4 GB
- Hard Disk: Minimum 20 GB

- Keyboard and Mouse

4. PROJECT DESCRIPTION

The Bank Management System is designed to handle various banking activities such as creating new accounts, depositing money, withdrawing money, displaying account details, and deleting accounts.

The system allows secure storage of customer information and transaction details using a MySQL database. It provides a menu-driven interface that is simple and user-friendly. All banking operations are performed efficiently with accurate record maintenance.

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5. DATABASE DESIGN

The project uses MySQL database to store banking data. The following tables are used:

- **bank_master**: Stores customer account details
- **banktrans**: Stores transaction details such as deposits and withdrawals

The database structure ensures data integrity and secure handling of banking information.

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6. MODULE DESCRIPTION

1. Account Creation Module

Used to create new bank accounts for customers.

2. Deposit Module

Allows customers to deposit money into their accounts.

3. Withdrawal Module

Handles withdrawal of money from customer accounts.

4. Account Display Module

Displays details of a specific account or all accounts.

5. Database Module

Manages storage and retrieval of data using MySQL.

7. SOURCE CODE

The project is implemented using the Python programming language with MySQL database connectivity. The source code includes database creation, table creation, and various banking operations such as deposit, withdrawal, and account management.

```
#SOURCE CODE FOR BANKING TRANSACTIONS

print("""        ==========================================================


                WELCOME TO BANK MANAGEMENT SYSTEM


      ============================================================""")

print("****BANK TRANSACTION****")


#creating database

import mysql.connector


mydb=mysql.connector.connect(host="localhost",user="root",passwd="tiger")

mycursor=mydb.cursor()

mycursor.execute("create database if not exists bank")

mycursor.execute("use bank")


#creating required tables


mycursor.execute("create table if not exists bank_master(acno char(4) primary key,name varchar(30),city
char(20),mobileno char(10),balance int(6))")


mycursor.execute("create table if not exists banktrans(acno char (4),amount int(6),dot date,ttype char(1),foreign
key (acno) references bank_master(acno))")

mydb.commit()

while(True):
```

```
    print("1=Create account")
    print("2=Deposit money")
    print("3=Withdraw money")
    print("4=Display specific account")
    print("5=Display all accounts")
    print("6=delete an account")
    print("7=Exit")
    ch=int(input("Enter your choice:"))

#PROCEDURE FOR CREATING A NEW ACCOUNT OF THE APPLICANT
    if(ch==1):
        print("All information prompted are mandatory to be filled")
        acno=str(input("Enter account number:"))
        name=input("Enter name(limit 35 characters):")
        city=str(input("Enter city name:"))
        mn=str(input("Enter mobile no.:"))
        balance=0
        mycursor.execute("insert into bank_master
values('"+acno+"','"+name+"','"+city+"','"+mn+"','"+str(balance)+"')")
        mydb.commit()
        print("Account is successfully created!!!")

#PROCEDURE FOR UPDATIONG DETAILS AFTER THE DEPOSITION OF MONEY BY THE APPLICANT
    elif(ch==2):
        acno=str(input("Enter account number:"))
        dp=int(input("Enter amount to be deposited:"))
        dot=str(input("Enter date of Transaction: YYYY-MM-DD "))
        ttype="d"
        mycursor.execute("insert into banktrans values('"+acno+"','"+str(dp)+"','"+dot+"','"+ttype+"')")
```

```
        mycursor.execute("update bank_master set balance=balance+'"+str(dp)+"' where acno='"+acno+"'")
        mydb.commit()
        print("money has been deposited successfully!!!")
#PROCEDURE FOR UPDATING THE DETAILS OF ACCOUNT AFTER THE WITHDRAWL OF MONEY BY THE APPLICANT


    elif(ch==3):
        acno=str(input("Enter account number:"))
        wd=int(input("Enter amount to be withdrawn:"))
        dot=str(input("enter date of transaction: YYYY-MM-DD "))
        ttype="w"
        mycursor.execute("insert into banktrans values('"+acno+"','"+str(wd)+"','"+dot+"','"+ttype+"')")
        mycursor.execute("update bank_master set balance=balance-'"+str(wd)+"' where acno='"+acno+"'")
        mydb.commit()

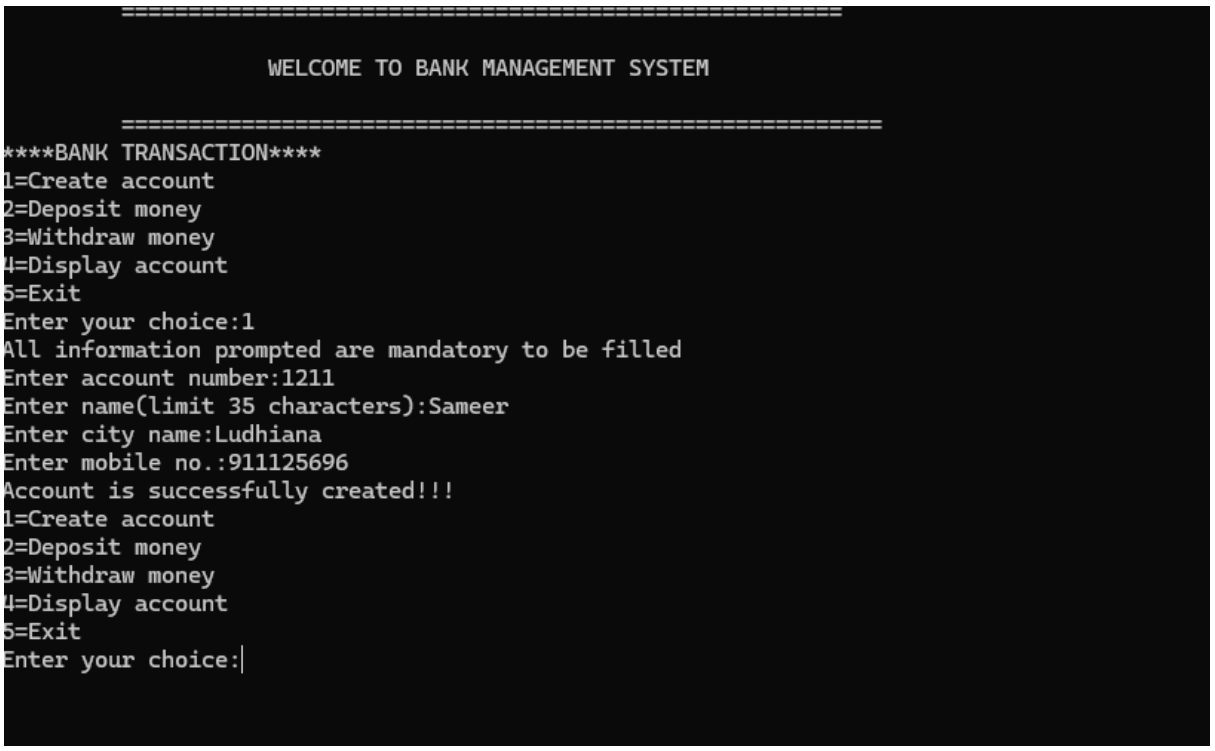

#PROCEDURE FOR DISPLAYING THE ACCOUNT OF THE ACCOUNT HOLDER AFTER HE/SHE ENTERS HIS/HER ACCOUNT NUMBER
    elif(ch==4):
        acno=str(input("Enter account number:"))
        mycursor.execute("select * from bank_master where acno='"+acno+"'")
        for i in mycursor:
            print(i)
    elif(ch==5):
        #acno=str(input("Enter account number:"))
        mycursor.execute("select * from bank_master") #where acno='"+acno+"'")
        for i in mycursor:
            print(i)
    elif (ch==6):
        acno=str(input("Enter account number:"))
        mycursor.execute("delete from banktrans where acno='"+acno+"'")
        mycursor.execute("delete from bank_master where acno='"+acno+"'")
```

```
        mycursor.execute("commit")
        print("Account deleted successfully....")
    else:
        break
```

8. OUTPUT SCREENS

- The output screens include:
- Welcome screen
- Main menu screen
- Account creation screen
- Deposit and withdrawal screens
- Account display screens

OUTPUT:



```
1=Create account
2=Deposit money
3=Withdraw money
4=Display account
5=Exit
Enter your choice:2
Enter account number:1211
Enter amount to be deposited:54000
Enter date of Transaction: YYYY-MM-DD 2026-01-10
money has been deposited successully!!!
1=Create account
2=Deposit money
3=Withdraw money
4=Display account
5=Exit
Enter your choice:
```

```
        ========================================================

                    WELCOME TO BANK MANAGEMENT SYSTEM

        ========================================================
****BANK TRANSACTION****
1=Create account
2=Deposit money
3=Withdraw money
4=Display account
5=Exit
Enter your choice:4
Enter account number:1211
('1211', 'Sameer', 'Ludhiana', '911125696', 54000)
1=Create account
2=Deposit money
3=Withdraw money
4=Display account
5=Exit
Enter your choice:
```

```
1=Create account
2=Deposit money
3=Withdraw money
4=Display account
5=Exit
Enter your choice:3
Enter account number:1211
Enter amount to be withdrawn:22000
enter date of transaction: YYYY-MM-DD 2026-01-10
1=Create account
2=Deposit money
3=Withdraw money
4=Display account
5=Exit
Enter your choice:4
Enter account number:1211
('1211', 'Sameer', 'Ludhiana', '911125696', 32000)
```

```
****BANK TRANSACTIONS****
1=Create account
2=Deposit money
3=Withdraw money
4=Display specific account
5=Display all accounts
6=delete an account
7=Exit
Enter your choice:5
('1211', 'Sameer', 'Ludhiana', '911125696', 32000)
('1212', 'Yash', 'Jalandhar', '9252546569', 90000)
('1213', 'Daksh', 'Samrala', '9555584456', 49000)
1=Create account
2=Deposit money
3=Withdraw money
4=Display specific account
5=Display all accounts
6=delete an account
7=Exit
Enter your choice:
```

```
        ======================================================

                    WELCOME TO BANK MANAGEMENT SYSTEM

        ======================================================
****BANK TRANSACTION****
1=Create account
2=Deposit money
3=Withdraw money
4=Display specific account
5=Display all accounts
6=delete an account
7=Exit
Enter your choice:5
('1211', 'Sameer', 'Ludhiana', '911125696', 32000)
('1212', 'Yash', 'Jalandhar', '9252546569', 90000)
('1213', 'Daksh', 'Samrala', '9555584456', 49000)
('1214', 'samuel', 'patiala', '2163456', 94002)
1=Create account
2=Deposit money
3=Withdraw money
4=Display specific account
5=Display all accounts
6=delete an account
7=Exit
Enter your choice:
```

```
1=Create account
2=Deposit money
3=Withdraw money
4=Display specific account
5=Display all accounts
6=delete an account
7=Exit
Enter your choice:3
Enter account number:1214
Enter amount to be withdrawn:24000
enter date of transaction: YYYY-MM-DD 2026-01-16
1=Create account
2=Deposit money
3=Withdraw money
4=Display specific account
5=Display all accounts
6=delete an account
7=Exit
Enter your choice:5
('1211', 'Sameer', 'Ludhiana', '911125696', 32000)
('1212', 'Yash', 'Jalandhar', '9252546569', 90000)
('1213', 'Daksh', 'Samrala', '9555584456', 49000)
('1214', 'samuel', 'patiala', '2163456', 70002)
```

```
1=Create account
2=Deposit money
3=Withdraw money
4=Display specific account
5=Display all accounts
6=delete an account
7=Exit
Enter your choice:6
Enter account number:1211
Account deleted successfully....
1=Create account
2=Deposit money
3=Withdraw money
4=Display specific account
5=Display all accounts
6=delete an account
7=Exit
Enter your choice:5
('1212', 'Yash', 'Jalandhar', '9252546569', 90000)
('1213', 'Daksh', 'Samrala', '9555584456', 49000)
('1214', 'samuel', 'patiala', '2163456', 70002)
1=Create account
2=Deposit money
3=Withdraw money
4=Display specific account
5=Display all accounts
6=delete an account
7=Exit
Enter your choice:
```

```
mysql> use bank;
Database changed
mysql> show tables;
+---------------+
| Tables_in_bank |
+---------------+
| bank_master    |
| banktrans      |
+---------------+
2 rows in set (0.00 sec)
```

```
mysql> select * from bank_master;
+------+--------+----------+-----------+---------+
| acno | name   | city     | mobileno  | balance |
+------+--------+----------+-----------+---------+
| 1212 | Yash   | Jalandhar | 9252546569 |   90000 |
| 1213 | Daksh  | Samrala   | 9555584456 |   49000 |
| 1214 | samuel | patiala   | 2163456    |   70002 |
+------+--------+----------+-----------+---------+
3 rows in set (0.00 sec)
```

```
mysql> desc bank_master;
+----------+------------+------+-----+---------+-------+
| Field    | Type       | Null | Key | Default | Extra |
+----------+------------+------+-----+---------+-------+
| acno     | char(4)    | NO   | PRI | NULL    |       |
| name     | varchar(30) | YES  |     | NULL    |       |
| city     | char(20)   | YES  |     | NULL    |       |
| mobileno | char(10)   | YES  |     | NULL    |       |
| balance  | int        | YES  |     | NULL    |       |
+----------+------------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

9. CONCLUSION

The Bank Management System successfully automates basic banking operations and provides an efficient way to manage customer accounts and transactions. The system is user-friendly, reliable, and reduces manual effort while ensuring accurate record keeping.

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10. FUTURE SCOPE

- The project can be enhanced in the future by:
- Adding a graphical user interface (GUI)

- Implementing online banking features
- Adding interest calculation module
- Enhancing security features
- Making the system web-based

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11. BIBLIOGRAPHY

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