



Bank Management

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Acknowledgements

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About The Project

DecixBMS is a simple bank management system written in Python and MySQL. Our aim was to develop software catering to the financial applications of a customer in a banking environment.

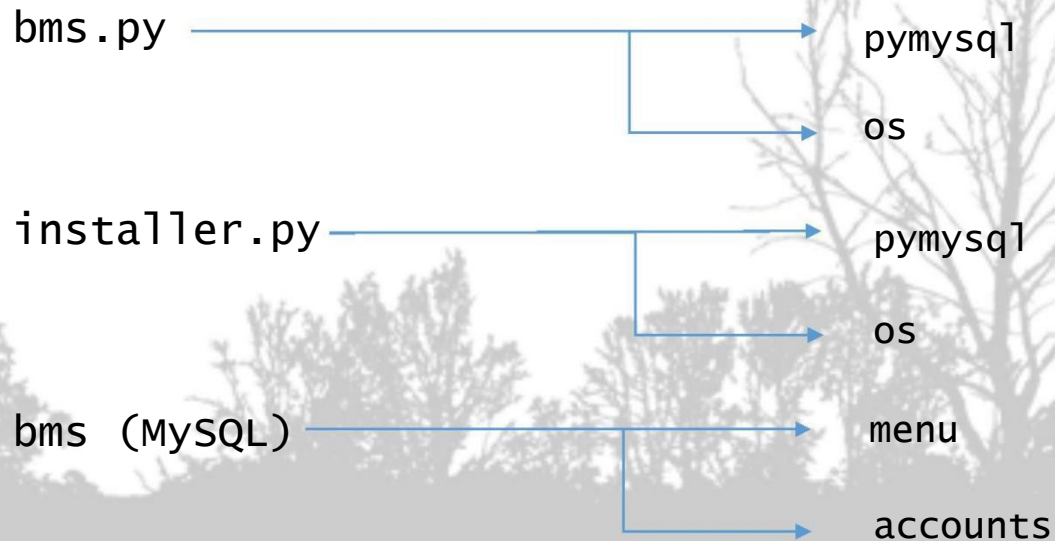
It provides various ways to perform banking tasks, and hence DecixBMS was created. DecixBMS, undertaken as a project is based on relevant technologies. The main aim of this project is to develop software for the management of a bank.

This project has been developed to carry out processes easily and quickly, which is not possible with the manual system, which was surpassed by this software.

This project has been developed using Python 3.7.5 and MySQL 5.1, on Windows 10 release 19041.1, and is tested to be compatible with the same.

We have also bundled an installer script written in Python to automate the creation of the required database and tables, and insert the necessary values in the tables for the program to work.

Files, Libraries and Databases



MySQL Configuration

menu

sno	integer
actions	varchar(40)

accounts

sno	integer
AccName	varchar(40)
AccType	char(1)
amount	integer

Source Code

- bms.py

```
import pymysql as p
import os

def intro():
    clrscr()
    print("\t\t+-----+")
    print("\t\t|      Bank Management System      |")
    print("\t\t+-----+")
    print("\t\t|  The tool you can bank upon!  |")
    print("\t\t+-----+")
    input()

def NewAccount():
    sno = input('Enter the new account number :')
    name= input('Enter the new account name   :')
    Type= input('Enter account type [C/S]     :')
    amt = input('Enter initial amount         :')
    c = p.connect
    (host='localhost',user='root',password='Gaganmalvi@123',database='bms')
    a = c.cursor()
    q1 = 'insert into accounts
values('+str(sno)+','+str(name)+','+str(Type)+','+str(amt)+');'
    a.execute(q1)
    c.commit()
    print('New account created successfully, press any key to continue...')

def clrscr():
    if os.name=="nt":
        u = os.system("cls")
    else:
        u = os.system("clear")

def modifyAccount(num):
    c = p.connect
    (host='localhost',user='root',password='Gaganmalvi@123',database='bms')
    a = c.cursor()

    sno = input('Enter the account number      : ')
```



```

name = input('Enter the name of the account holder: ')
acctype = input('Enter type of account (C/S) : ')
q1 = 'update accounts set AccName = '+str(name)+' where sno = '+str(sno)
q2 = 'update accounts set AccType = '+str(acctype)+' where sno = '+str(sno)
a.execute(q1)
a.execute(q2)
c.commit()
print('Account updated successfully. Press any key to continue.')

def deposit(num):
    print('Deposit to Account Number: ',num)
    amount = input ('Enter the amount to deposit:')
    c = p.connect
    (host='localhost',user='root',password='Gaganmalvi@123',database='bms')
    a = c.cursor()
    q1 = 'update accounts set amount=amount'+str(amount)+' where sno='+str(num)+';'
    a.execute(q1)
    c.commit()
    print('Deposited the required amount successfully. Press any key to continue.')

def withdraw(num):
    print('Withdraw to Account Number: ',str(num))
    amount = input ('Enter amount to withdraw: ')
    c = p.connect
    (host='localhost',user='root',password='Gaganmalvi@123',database='bms')
    a = c.cursor()
    q1 = 'update accounts set amount=amount-'+str(amount)+' where sno='+str(num)+';'
    a.execute(q1)
    c.commit()
    print('Withdrew the required amount successfully, press any key to continue.')

def balanceEnquiry(num):
    print('Balance (Account Number: '+str(num)+'')
    c = p.connect
    (host='localhost',user='root',password='Gaganmalvi@123',database='bms')
    a = c.cursor()
    q = 'select amount from accounts where sno='+str(num)+';'
    a.execute(q)
    d = a.fetchall()
    print('=====')
    for i in d:
        for j in i:
            print ('Balance in INR:',j,end='\t')

```

```

        print()

def deleteAccount(num):
    x = input('DELETING ACCOUNT FOR S/N '+str(num)+' DO YOU WANT TO CONTINUE? CHANGES ARE IRREVERSIBLE! (Y/N):')
    if x == 'Y':
        c = p.connect
        (host='localhost',user='root',password='Gaganmalvi@123',database='bms')
        a = c.cursor()
        a.execute('delete from accounts where sno='+str(num)+';')
        c.commit()
        print('Deleted account successfully, press any key to continue')
    else:
        print('Wrong option, try again!')

def displayAll():
    c = p.connect
    (host='localhost',user='root',password='Gaganmalvi@123',database='bms')
    a = c.cursor()
    a.execute('select * from accounts;')
    d = a.fetchall()
    print ('List of All Account Holders')
    print ('=====')
    print ('AccountNo\tAccountHolder\t\tType\t\tAmount')
    print ('=====')
    for i in d:
        for j in i:
            print (j,end='\t\t')
        print()

ch=''
num=0
intro()

while ch != 8:
    clrscr()
    print('=====')
    print('Decix Bank Management')
    print('=====')
    c = p.connect
    (host='localhost',user='root',password='Gaganmalvi@123',database='bms')
    a = c.cursor()

```



```
q = 'select * from menu'
a.execute(q)
d = a.fetchall()
print ('Option\tAction')
for i in d:
    for j in i:
        print (j,end='\t')
    print()

print("Select Your Option (1-8) ")
ch = input()

if ch == '1':
    clrscr()
    NewAccount()
elif ch == '2':
    clrscr()
    num = int(input("Enter The account No. : "))
    deposit(num)
elif ch == '3':
    clrscr()
    num = int(input("Enter The account No. : "))
    withdraw(num)
elif ch == '4':
    clrscr()
    num = int(input("Enter The account No. : "))
    balanceEnquiry(num)
elif ch == '5':
    clrscr()
    displayAll()
elif ch == '6':
    clrscr()
    num =int(input("Enter The account No. : "))
    deleteAccount(num)
elif ch == '7':
    clrscr()
    modifyAccount(num)
elif ch == '8':
    clrscr()
    print("\t+-----+")
    print("\t|Thank you for using DecixBMS!|")
    print("\t+-----+")
    break
else :
```

```
        print("Invalid choice")
ch = input()
```

- installer.py

```
import os
import pymysql as p
...

DecixBMS Installer
Change the password to your MySQL passwd
...

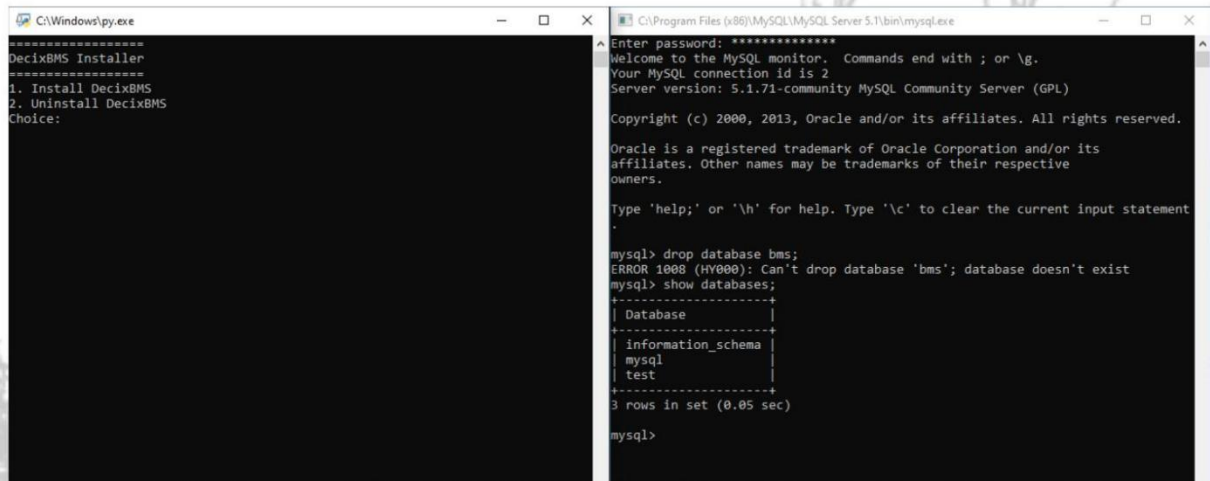
c = p.connect(host = 'localhost', user = 'root', password = 'Gaganmalvi@123')
a = c.cursor()
def clrscr():
    if os.name=="nt":
        u = os.system("cls")
    else:
        u = os.system("clear")
def installDecix():
    a.execute('create database bms;')
    a.execute('use bms;')
    a.execute('create table menu (sno integer,actions varchar(40));')
    a.execute('create table accounts(sno integer, AccName varchar(20),
AccType char(1), amount integer);')
    a.execute('insert into menu values(1,"New Account");')
    a.execute('insert into menu values(2,"Deposit Money");')
    a.execute('insert into menu values(3,"Withdrawal of Money");')
    a.execute('insert into menu values(4,"Balance Enquiry");')
    a.execute('insert into menu values(5,"Account Holders List");')
    a.execute('insert into menu values(6,"Closure of Account");')
    a.execute('insert into menu values(7,"Modify Account");')
    a.execute('insert into menu values(8,"Exit BMS");')
    c.commit()
    print('Installed successfully!')

def uninstDecix():
    a.execute('drop database bms;')
    c.commit()
    print('Uninstalled!')
def mainRun():
    print('=====')
```

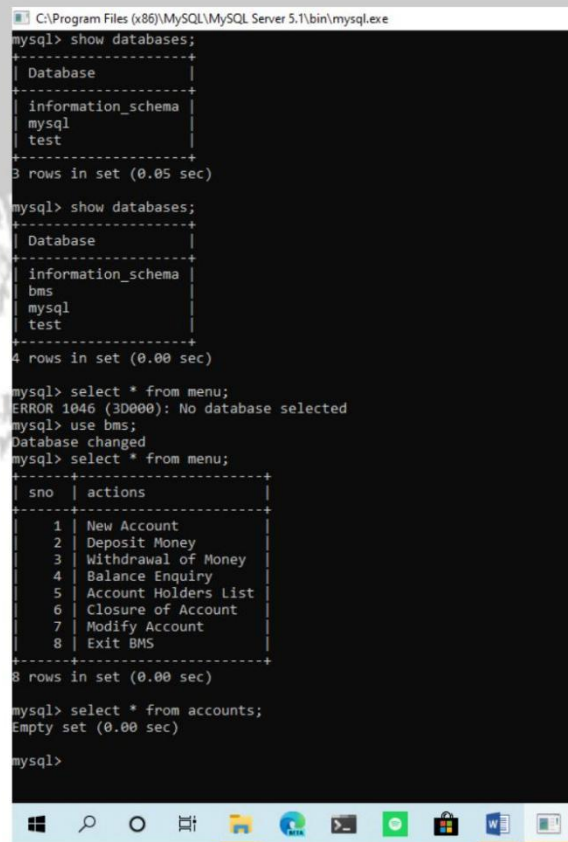
```
print('DecixBMS Installer')
print('=====')
print('1. Install DecixBMS')
print('2. Uninstall DecixBMS')
z = input('Choice:')
if z == '1':
    installDecix()
elif z == '2':
    uninstDecix()
else:
    print('Wrong choice!')

mainRun()
```

Screenshots



Pre-installation



Post Installation

```
C:\Windows\py.exe

+-----+
| Bank Management System |
+-----+
| The tool you can bank upon! |
+-----+
```

Splash

```
C:\Windows\py.exe

=====
Decix Bank Management
=====
Option  Action
1       New Account
2       Deposit Money
3       Withdrawal of Money
4       Balance Enquiry
5       Account Holders List
6       Closure of Account
7       Modify Account
8       Exit BMS
Select Your Option (1-8)
```

Menu

```
C:\Windows\py.exe
Enter the new account number :1
Enter the new account name   : 'Gagan Malvi'
Enter account type [C/S]    : 'C'
Enter initial amount        : 200000
New account created successfully, press any key to continue...

C:\Program Files (x86)\MySQL\MySQL Server 5.1\bin\mysql.exe
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 3
Server version: 5.1.71-community MySQL Community Server (GPL)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement
.

mysql> use bms;
Database changed
mysql> select * from accounts;
+----+-----+-----+-----+
| sno | AccName | AccType | amount |
+----+-----+-----+-----+
| 1   | Gagan Malvi | C   | 200000 |
+----+-----+-----+-----+
1 row in set (0.00 sec)

mysql>
```

Create a New Account


```
C:\Windows\py.exe
Enter The account No. : 1
Deposit to Account Number: 1
Enter the amount to deposit:10000
Deposited the required amount successfully. Press any key to continue.

C:\Program Files (x86)\MySQL\MySQL Server 5.1\bin\mysql.exe
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 14
Server version: 5.1.71-community MySQL Community Server (GPL)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement
.

mysql> use bms;
Database changed
mysql> select * from accounts;
+-----+-----+-----+-----+
| sno | AccName | AccType | amount |
+-----+-----+-----+-----+
| 1 | Gagan Malvi | C | 310000 |
| 2 | Shreya Mahida | S | 1000000 |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

Deposit Money

```
C:\Windows\py.exe
Enter The account No. : 2
Withdraw to Account Number: 2
Enter amount to withdraw: 200000
Withdrew the required amount successfully, press any key to continue.

C:\Program Files (x86)\MySQL\MySQL Server 5.1\bin\mysql.exe
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 18
Server version: 5.1.71-community MySQL Community Server (GPL)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement
.

mysql> use bms;
Database changed
mysql> select * from accounts;
+-----+-----+-----+-----+
| sno | AccName | AccType | amount |
+-----+-----+-----+-----+
| 1 | Gagan Malvi | C | 310000 |
| 2 | Shreya Mahida | S | 1000000 |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from accounts;
+-----+-----+-----+-----+
| sno | AccName | AccType | amount |
+-----+-----+-----+-----+
| 1 | Gagan Malvi | C | 310000 |
| 2 | Shreya Mahida | S | 800000 |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

Withdraw Money

```
C:\Windows\py.exe
List of All Account Holders
=====
AccountNo      AccountHolder      Type      Amount
=====
1              Gagan Malvi        C          310000
2              Shreya Mahida      S          800000
```

List All Account Holders


```
C:\Windows\py.exe
Enter The account No. : 2
Balance (Account Number: 2)
=====
Balance in INR: 800000

C:\Program Files (x86)\MySQL\MySQL Server 5.1\bin\mysql.exe
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 18
Server version: 5.1.71-community MySQL Community Server (GPL)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement
.

mysql> use bms;
Database changed
mysql> select * from accounts;
+----+-----+-----+-----+
| sno | AccName | AccType | amount |
+----+-----+-----+-----+
| 1   | Gagan Malvi | C       | 310000 |
| 2   | Shreya Mahida | S       | 1000000 |
+----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from accounts;
+----+-----+-----+-----+
| sno | AccName | AccType | amount |
+----+-----+-----+-----+
| 1   | Gagan Malvi | C       | 310000 |
| 2   | Shreya Mahida | S       | 800000 |
+----+-----+-----+-----+
2 rows in set (0.00 sec)
```

Balance Enquiry

```
C:\Windows\py.exe
Enter The account No. : 1
DELETING ACCOUNT FOR S/N 100 YOU WANT TO CONTINUE? CHANGES ARE IRREVERSIBLE!
(Y/N):Y
Deleted account successfully, press any key to continue

C:\Program Files (x86)\MySQL\MySQL Server 5.1\bin\mysql.exe
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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement
.

mysql> use bms;
Database changed
mysql> select * from accounts;
+----+-----+-----+-----+
| sno | AccName | AccType | amount |
+----+-----+-----+-----+
| 1   | Gagan Malvi | C       | 310000 |
| 2   | Shreya Mahida | S       | 1000000 |
+----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from accounts;
+----+-----+-----+-----+
| sno | AccName | AccType | amount |
+----+-----+-----+-----+
| 1   | Gagan Malvi | C       | 310000 |
| 2   | Shreya Mahida | S       | 800000 |
+----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from accounts;
+----+-----+-----+-----+
| sno | AccName | AccType | amount |
+----+-----+-----+-----+
| 2   | Shreya Mahida | S       | 800000 |
+----+-----+-----+-----+
1 row in set (0.00 sec)

mysql>
```

Delete Account

```
C:\Windows\py.exe
Enter the account number : 1
Enter the name of the account holder: 'Raghav Pachisia'
Enter type of account (C/S) : 'C'
Account updated successfully. Press any key to continue.

C:\Program Files (x86)\MySQL\MySQL Server 5.1\bin\mysql.exe
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 42
Server version: 5.1.71-community MySQL Community Server (GPL)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement
.

mysql> use bms;
Database changed
mysql> select * from accounts;
+----+-----+-----+-----+
| sno | AccName | AccType | amount |
+----+-----+-----+-----+
| 2   | Shreya Mahida | C       | 800000 |
| 1   | Raghav Pachisia | S       | 1000000 |
+----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from accounts;
+----+-----+-----+-----+
| sno | AccName | AccType | amount |
+----+-----+-----+-----+
| 2   | Shreya Mahida | C       | 800000 |
| 1   | Raghav Pachisia | C       | 1000000 |
+----+-----+-----+-----+
2 rows in set (0.00 sec)
```

Modify Account

Bibliography

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