Computer Science project on

**INDIAN LOAN MANAGEMENT**

**SERVICE [ILMS] USING PYTHON**

(2020-2021)

Barath kumar.J

CLASS XII



**SUGUNA PIP SCHOOL ,COIMBATORE**



**SUGUNA PIP SCHOOL, COIMBATORE**

CERTIFICATE

COMPUTER SCIENCE PROJECT

This is to certify that the Computer Science project report titled **INDIAN LOAN MANAGEMENT SERVICE USING PYTHON** which has been submitted to SUGUNA PIP School, meeting the requirements of the CBSE Board practical examination for the academic year 2020–2021, is a bonafide work done by **J.BARATHKUMAR**

Signature of Principal Teacher Incharge

Signature of Internal Examiner Signature of External Examiner

# DECLARATION

I **J.BARATH KUMAR** , of class XII, hereby declare that the project

Titled **“INDIAN LOAN MANAGEMENT SERVICE USING PYTHON"** submitted to SUGUNA PIP SCHOOL, (Affiliation number-1930213),

Nehru Nagar, Kalapatty Road, Coimbatore, Tamilnadu-641014, in Regard to the class XII Senior Secondary Examination for the CBSE Board, is a record of original project work done by me, under the supervision of **MRS.NITHYA**, Faculty in Information technology department, Suguna PIP School, I further certify that,

I. The work contained in the report is **original**

and has been done by me under the general

supervision of my Faculty.

II. The work has not been submitted to any other

Institution/Board for class XII Senior

Secondary Examination, CBSE Board

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# ACKNOWLEDGEMENT

I am over helmed in all humbleness and gratefulness to acknowledge my depth to all those who have helped me to put these ideas, well above the level of simplicity and into something concrete.  
I would like to express my special thanks of gratitude to my teacher , **MRS.NITHYA** as well as our principal, **MR,POOVANAN** who gave me the golden opportunity to do this wonderful project on the topic **"INDIAN LOAN MANAGEMENT SERVICE"** , which also helped me in doing a lot of Research and i came to know about so many new things. I am really thankful to them.  
Any attempt at any level can 't be satifactorily completed without the support and guidance of My parents and friends.  
I would like to thank my parents who helped me a lot in gathering different information, collecting data and guiding me from time to time in making this project , despite of their busy schedules ,they gave me different ideas in making this project unique.

# 

# ABSTRACT

Aim:

* This project focuses to manage and ease the management and repaying of loans ,and etc to every Indian citizen in the country who have bought loan from banks
* It’s main objective is to reduce the fraudulency happening to the uneducated or any people in the country by private banks.
* Also aims to nationalize every bank and no citizen repays extra debt in name of interests.

Language used:

* Python and MySQL

Procedure:

* This program is done by uploading all Indian citizens loan data whether its ongoing or closed in a MySQL table.
* Then we should upload data about the loan interests for each type of loans people get and also the available time periods to close the debt as a data stored.
* Two apps would be created one for bank and another for the customers.
* After setting up all primary data for a loan and monthly installment price and etc for a loans then we create a program where collection agencies can’t do any confusions or frauds by saying the time period ends so, here in this software the each one have to set a time and date for each month to collect monthly installments either by collection agency or by upi or directly paying to the bank.
* Here all interests and late fee and required things will be set and at the time closing or paying the bank can’t demand extra money if so did the customer can complain through here and severe actions will be taken by the officials.
* At every payment of installments a e-bill would be produced by the bank software and will be sent automatically to the customers if not officials would be alerted. Customer would be only able to pay their debts on the dates they have set so even uneducated doesn’t have to worry if they don’t know to use this.The people at bank should confirm payment or else transaction wouldn’t take place if done online.After both customer and the bank have confirmed payment an e-bill would be produced and stored in data so no one cheat that you have not paid previous installments. If either one is not confirmed officials would be alerted and would assess in doing the process if one doesn’t know.

Outcome:

* If this app comes in play government will have to make every bank nationalized and set up a separate office for this which would make employment to many people. Mainly this would reduce fraudulency happening in India and would promote India as a more developed nation.

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# INTRODUCTION

*What it does:*

* This project focuses to manage and ease the management and repaying of loans ,and etc to every Indian citizen in the country who have bought loan from banks
* It’s main objective is to reduce the fraudulency happening to the uneducated or any people in the country by private banks.
* Every Indian citizens’ loan acoounts are stored in MySQl databse and everything is managed through this program like correction and check each and everyone’s loan amount interest,etc
* Also through this app anyone can get a new or pay their dues or manage their loans and more in a very transparent manner.

*Project Category:*

* This project involves managing records as well as manipulating them, hence coming under the category of relational database management system. It requires extensive use of database management system to store, add, edit, save and delete the data.
* Also it involves use of python language to get a new loan and pay their and by updating in their record so it comes under the category interface with python and Sql

*Modules and classes used:*

* **Mysql.connector**: In order to carry out a connection with MySql and Python, a MySQL driver must be installed. To check if the installation was successful, we import this module. If the module was imported without errors, connection was successful and .

“MySQL connector” is installed and ready to use.

* **Datetime** :

Datetime module supplies classes to work with date and time. These classes provide a number of functions to deal with dates, times and time intervals.

* **From Datetime import date**:

Date is the class under the module Datetime which gives an idealized date, assuming current Gregorian calendar, its attributes being year, month and day. In this context, it is used to get inputs of the date of birth of any artist on the record.

* **Random function:**

It is used to produce OTP for a customer everything is based on OTP based transaction.

# SOURCE CODE

print("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*WELCOME TO INDIAN LOAN MANAGEMENT SERVICE\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*")

server=input('which server do you want to take...1)Bank...2)customer:')

if server=='2':

Process=input('what to do you want to do...a)Take a new loan...b)manage your loan...c)pay your dues..:')

if Process=='a':

LOAN=int(input('Enter amount required:'))

lt=input("what type of loan do you need…..1)vehicle…2)home…3)personal….4)education:")

y=int(input('how many years do you want this loan:'))

n=12\*y

if lt=='1':

R=2

r=2/(100\*n)

if lt=='2':

R=2.5

r=2.5/(100\*n)

if lt=='3':

R=1.5

r=1.5/(100\*n)

if lt=='4':

R=1.25

r=1.25/(100\*n)

EMI=LOAN\*r\*(1 + r)\*\*n/((1 + r)\*\*n - 1)

print("the required EMI is",EMI)

FINALAMOUNT=EMI\*n

print("after",n,"months you have a pay a total amount of",FINALAMOUNT)

print(LOAN,'is this your required amount of loan can we initiate the process')

decision=input('do you want to take this loan:')

if decision=='yes':

print('please wait until we connect to the bank servers')

import mysql.connector

connection=mysql.connector.connect(host="localhost",user="root",password="Barath",database="mydb")

crsr=connection.cursor()

import mysql.connector

connection=mysql.connector.connect(host="localhost",user="root",password="Barath",database="mydb")

crsr=connection.cursor()

db="""SELECT MAX(custid) FROM customer;"""

crsr.execute(db)

for i in crsr:

print(i)

CUSTID=input('please enter your custid in format C000X WHERE ADD 1 ONE VALUE MORE THAN THE ABOVE SHOWN:')

FNAME=input('please enter your fname:')

MNAME=input('please enter your mname:')

LNAME=input('please enter your lname:')

CITY=input('please enter your city:')

MOBILENO=input('please enter your mobile number:')

OCCUPATION=input('enter your occupation:')

DOB=input('enter your date of birth:')

from datetime import datetime

now=datetime.now()

print(now)

dt\_string = now.strftime("%Y/%m/%d %H:%M:%S")

print("date and time =", dt\_string)

input(FINALAMOUNT)

input(CUSTID)

input(FNAME)

input(MNAME)

input(LNAME)

input(CITY)

input(MOBILENO)

input(OCCUPATION)

input(DOB)

input(lt)

input(EMI)

input(y)

input(R)

input(LOAN)

insert\_tuple=now

input(insert\_tuple)

print('Is above details entered correct')

z=input('if yes enter q:')

if z=='q':

import mysql.connector

connection=mysql.connector.connect(host="localhost",user="root",password="Barath",database="mydb")

crsr=connection.cursor()

sql="""INSERT INTO customer VALUES('%s','%s','%s','%s','%s','%s','%s','%s','%s','%s','%s','%s','%s','%s',%s);"""%(CUSTID,FNAME,MNAME,LNAME,LOAN,lt,EMI,y,R,CITY,MOBILENO,OCCUPATION,DOB,FINALAMOUNT,insert\_tuple,)

crsr.execute(sql)

connection.commit()

print('details added successfully')

print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*TRANSACTION SUCCESSFULL\*\*\*\*\*\*\*\*\*\*\*\*')

else:

print('please return to previous session')

if decision=='no':

print('transactions cancelled')

if Process=='c':

import mysql.connector

connection=mysql.connector.connect(host="localhost",user="root",password="Barath",database="mydb")

crsr=connection.cursor()

ans=input('do you want to initiate this process:')

if ans=='yes':

print("please wait while we initiate the transaction")

name=input('what is your fname:')

table="""SELECT\* FROM customer WHERE fname='%s';"""%(name,)

crsr.execute(table)

for i in crsr:

print(i)

Emi="""SELECT Dues\_per\_month FROM customer where fname='%s';"""%(name)

crsr.execute(Emi)

for i in crsr:

print(i)

print('Do you want to pay above shown emi for this month ')

transaction=input('please confirm by pressing T or for more press D:')

if transaction=='T':

from datetime import datetime

now=datetime.now()

seq=int(now.strftime("%d"))

dt\_string = now.strftime("%Y/%m/%d %H:%M:%S")

print('todays date is',dt\_string)

print('pleas wait intil we check whether you are paying on time')

lastinst=input('please enter what was the ....1)last inst you are paid (in format instX where X is inst no).... 2)please ignore if this is the first installment:')

if lastinst=='1':

Diff="""SELECT datediff(curdate(),%s) FROM customer WHERE fname='%s'"""%(lastinst,name,)

crsr.execute(Diff)

crsr.fetchone()[0]

diff=str("%s"%Diff)

dec="""DECLARE@%s INT;"""%(diff,)

crsr.execute(dec)

Set="""SET@%s=(SELECT datediff(curdate(),%s) FROM customer WHERE fname='%s');"""%(diff,lastinst,name,)

crsr.execute(Set)

sel="""SELECT@%s"""(diff)

crsr.execute(sel)

crsr.fetchone()[0]

DIFF=str("%s"%Diff)

if DIFF>'40':

print('please ..1)vist nearest branch to pay your emi inclusive of late fee OR ...2)you can pay here too','please note that a collection agent should not come because latefee increases per day',sep='\n')

go=input('what to do:')

if go=='1':

print('please visit your nearest branch to pay inclusive of late fee')

if go=='2':

A=str(input('please enter which installmanet you are paying:'))

S=str(input('type inst:'))

m=S+A

input(m)

date="""ALTER TABLE customer ADD %s TIMESTAMP NULL;"""%(m,)

crsr.execute(date,input)

connection.commit()

from datetime import datetime

now=datetime.now()

print(now)

dt\_string = now.strftime("%Y/%m/%d %H:%M:%S")

print("date and time =", dt\_string)

insert\_tuple=now

input(insert\_tuple)

paydate="""UPDATE customer SET %s='%s' WHERE fname='%s';"""%(m,insert\_tuple,name,)

crsr.execute(paydate,input)

connection.commit()

for i in crsr:

print(i)

fee=(DIFF-30)\*50

print('your total latefee is',fee)

latefee="""SELECT\* customer Dues\_per\_month+%s WHERE fname='%s';"""%(fee,name,)

crsr.execute(latefee)

for i in crsr:

print(i)

debtpay="""UPDATE customer SET final\_amount\_to\_be\_repaid='final\_amount\_to\_be\_repaid'-'Dues\_per\_month' WHERE fname='%s';"""%(name,)

crsr.execute(debtpay,input)

connection.commit()

print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*TRANSACTION SUCCESSFULL\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*')

TABLE="""DESC customer"""

crsr.execute(table)

for i in crsr:

print(i)

print('please wait until we send your Ebill')

BILL="""SELECT mobileno FROM customer where fname='%s'"""%(name,)

crsr.execute(BILL)

for i in crsr:

print(i)

print('Is above shown mobileno your mobile number')

bill=input('confirm by pressing yes:')

if bill=='yes':

print('your Ebill is successfully sent to your number')

if bill=='no':

mobileno=input('please enter your old mobileno:')

Newmobileno=('please enter your new number:')

input(Newmobileno)

input(mobileno)

Mobileno="""UPDATE customer SET mobileno='%s' WHERE mobileno='%s'"""%(Newmobileno,mobileno,)

crsr.execute(Mobileno,input)

connection.commit()

print('New mobileno updated')

print('Ebill successfully sent to your number')

connection.close()

print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*YOUR DUE FOR THS MONTH IS SUCESSFULLY PAID\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*','\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*PLEASE RETURN NEXT MONTH FOR PAYING THE NEXT DUE\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*',sep='/n')

if DIFF<='40':

A=str(input('please enter which installmanet you are paying:'))

S=str(input('type inst:'))

m=S+A

input(m)

date="""ALTER TABLE customer ADD %s TIMESTAMP NULL;"""%(m,)

crsr.execute(date,input)

connection.commit()

from datetime import datetime

now=datetime.now()

print(now)

dt\_string = now.strftime("%Y/%m/%d %H:%M:%S")

print("date and time =", dt\_string)

insert\_tuple=now

input(insert\_tuple)

paydate="""UPDATE customer SET %s='%s' WHERE fname='%s';"""%(m,insert\_tuple,name,)

crsr.execute(paydate,input)

connection.commit()

for i in crsr:

print(i)

print('please wait until we initiate the transaction')

sql\_command="""UPDATE customer SET final\_amount\_to\_be\_repaid=(final\_amount\_to\_be\_repaid)-(Dues\_per\_Month) WHERE fname='%s';"""%(name,)

crsr.execute(sql\_command)

connection.commit()

print('\*\*\*\*\*\*\*\*\*\*Transaction successful\*\*\*\*\*\*\*\*\*\*\*\*\*')

TABLE="""DESC customer"""

crsr.execute(table)

for i in crsr:

print(i)

print('please wait until we send your Ebill')

BILL="""SELECT mobileno FROM customer where fname='%s'"""%(name,)

crsr.execute(BILL)

for i in crsr:

print(i)

print('Is above shown mobileno your mobile number')

bill=input('confirm by pressing yes:')

if bill=='yes':

print('your Ebill is successfully sent to your number')

if bill=='no':

mobileno=input('please enter your old mobileno:')

Newmobileno=('please enter your new number:')

input(Newmobileno)

input(mobileno)

Mobileno="""UPDATE customer SET mobileno='%s' WHERE mobileno='%s'"""%(Newmobileno,mobileno,)

crsr.execute(Mobileno,input)

connection.commit()

print('New mobileno updated')

print('Ebill successfully sent to your number')

connection.close()

print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*YOUR DUE FOR THS MONTH IS SUCESSFULLY PAID\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*','\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*PLEASE RETURN NEXT MONTH FOR PAYING THE NEXT DUE\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*',sep='\n')

if lastinst=='2':

x=input('through which app do you want to transfer....1)upi....2)notify a collection agent to come:')

if x=='1':

A=str(input('please enter which installmanet you are paying:'))

S=str(input('type inst:'))

m=S+A

input(m)

date="""ALTER TABLE customer ADD %s TIMESTAMP NULL;"""%(m,)

crsr.execute(date,input)

connection.commit()

from datetime import datetime

now=datetime.now()

print(now)

dt\_string = now.strftime("%Y/%m/%d %H:%M:%S")

print("date and time =", dt\_string)

insert\_tuple=now

input(insert\_tuple)

print('please wait until we initiate the transaction')

paydate="""UPDATE customer SET %s='%s' WHERE fname='%s';"""%(m,insert\_tuple,name,)

crsr.execute(paydate,input)

connection.commit()

for i in crsr:

print(i)

sql\_command="""UPDATE customer SET final\_amount\_to\_be\_repaid=(final\_amount\_to\_be\_repaid)-(Dues\_per\_Month) WHERE fname='%s';"""%(name,)

crsr.execute(sql\_command)

connection.commit()

print('\*\*\*\*\*\*\*\*\*\*Transaction successful\*\*\*\*\*\*\*\*\*\*\*\*\*')

TABLE="""DESC customer"""

crsr.execute(table)

for i in crsr:

print(i)

print('please wait until we send your Ebill')

BILL="""SELECT mobileno FROM customer where fname='%s'"""%(name,)

crsr.execute(BILL)

for i in crsr:

print(i)

print('Is above shown mobileno your mobile number')

bill=input('confirm by pressing yes:')

if bill=='yes':

print('your Ebill is successfully sent to your number')

if bill=='no':

mobileno=input('please enter your old mobileno:')

Newmobileno=('please enter your new number:')

input(Newmobileno)

input(mobileno)

Mobileno="""UPDATE customer SET mobileno='%s' WHERE mobileno='%s'"""%(Newmobileno,mobileno,)

crsr.execute(Mobileno,input)

connection.commit()

print('New mobileno updated')

print('Ebill successfully sent to your number')

connection.close()

print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*YOUR DUE FOR THS MONTH IS SUCESSFULLY PAID\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*','\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*PLEASE RETURN NEXT MONTH FOR PAYING THE NEXT DUE\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*',sep='/n')

if x=='2':

import mysql.connector

connection=mysql.connector.connect(host="localhost",user="root",password="Barath",database="mydb")

crsr=connection.cursor()

import random

n=random.randint(100000,1000000)

print(n)

string=input('please enter the above shown otp carefully:')

custid="""INSERT INTO OTP(custid,fname) SELECT custid,fname FROM customer WHERE fname='%s';"""%(name,)

otp="""UPDATE OTP SET OTP=%s WHERE fname='%s';"""%(string,name,)

crsr.execute(custid)

crsr.execute(otp)

connection.commit()

print('collection agency has been notified please wait for a few days until they reach you')

if transaction=='D':

print('do you want to ...1)cancel transaction....2)pay more than emi to close debt')

a=input('please enter what to do')

if a=='1':

print('Transaction cancelled....Thank you for using ILMS')

if a=='2':

debtamount=input('please enter the amount you want to pay:')

input(debtamount)

debt="""UPDATE customer SET final\_amount\_to\_be\_repaid='final\_amount\_to\_be\_repaid'-'%s' WHERE fname='%s';"""%(debtamount,name,)

crsr.execute(debt,input)

connection.commit()

print('\*\*\*\*\*\*\*\*\*\*Transaction successful\*\*\*\*\*\*\*\*\*\*\*\*\*')

TABLE="""DESC customer"""

crsr.execute(table)

for i in crsr:

print(i)

print('please wait until we send your Ebill')

BILL="""SELECT mobileno FROM customer where fname='%s'"""%(name,)

crsr.execute(BILL)

for i in crsr:

print(i)

print('Is above shown mobileno your mobile number')

bill=input('confirm by pressing yes:')

if bill=='yes':

print('your Ebill is successfully sent to your number')

if bill=='no':

mobileno=input('please enter your old mobileno:')

Newmobileno=('please enter your new number:')

input(Newmobileno)

input(mobileno)

Mobileno="""UPDATE customer SET mobileno='%s' WHERE mobileno='%s'"""%(Newmobileno,mobileno,)

crsr.execute(Mobileno,input)

connection.commit()

print('New mobileno updated')

print('Ebill successfully sent to your number')

connection.close()

print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*YOUR DUE FOR THS MONTH IS SUCESSFULLY PAID\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*','\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*PLEASE RETURN NEXT MONTH FOR PAYING THE NEXT DUE\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*',sep='\n')

if Process=='b':

print('connecting to servers')

import mysql.connector

connection=mysql.connector.connect(host="localhost",user="root",password="Barath",database="mydb")

crsr=connection.cursor()

name=input('what is your fname:')

sql\_command2="""SELECT\* FROM customer WHERE fname='%s';"""%(name,)

crsr.execute(sql\_command2)

ans=crsr.fetchall()

print(ans)

update=input('Do you want to update any details:')

if update=='yes':

what=input('what deatails are to be updated....1)fname..2)mname..3)lname...4)city..5)mobileno...6)occupation....7)dob...8)others:')

if what=='5':

mobileno=input('please enter your old mobileno:')

Newmobileno=('please enter your new number:')

input(Newmobileno)

input(mobileno)

Mobileno="""UPDATE customer SET mobileno='%s' WHERE mobileno='%s'"""

crsr.execute(Mobileno,input)

connection.commit()

print('New mobileno updated')

connection.close()

if what=='1':

fname=input('please enter your old fname:')

Newfname=('please enter your new fname:')

input(Newfname)

input(fname)

Fname="""UPDATE customer SET fname='%s' WHERE fname='%s'"""(Newfname,fname,)

crsr.execute(Fname,input)

connection.commit()

print('New fname updated')

connection.close()

if what=='2':

mname=input('please enter your old mname:')

Newmname=('please enter your new mname:')

input(Newmname)

input(mname)

Mname="""UPDATE customer SET mname='%s' WHERE mname='%s'"""%(Newmname,mname,)

crsr.execute(Mname,input)

connection.commit()

print('New mname updated')

connection.close()

if what=='3':

lname=input('please enter your old lname:')

Newlname=('please enter your new lname:')

input(Newmname)

input(lname)

Mname="""UPDATE customer SET mname='%s' WHERE mname='%s'"""%(Newlname,lname,)

crsr.execute(Mname,input)

connection.commit()

print('New lname updated')

if what=='4':

city=input('please enter your old city:')

Newcity=('please enter your new city:')

input(Newcity)

input(city)

City="""UPDATE customer SET city='%s' WHERE city='%s'"""%(Newcity,city,)

crsr.execute(City,input)

connection.commit()

print('New City updated')

if what=='6':

occupation=input('please enter your old lname:')

Newoccupation=('please enter your new lname:')

input(Newoccupation)

input(occupation)

NEWOCCUPATION="""UPDATE customer SET occupation='%s' WHERE occupation='%s'"""%(Newoccupation,occupation,)

crsr.execute(NEWOCCUPATION,input)

connection.commit()

print('New occupation updated')

if what=='6':

dob=input('please enter your old dob( in yyyy-MM-DD format):')

Newdob=('please enter your correct dob( in yyyy-MM-DD format):')

input(Newdob)

input(dob)

DOB="""UPDATE customer SET dob='%s' WHERE dob='%s'"""%(Newdob,dob,)

crsr.execute(DOB,input)

connection.commit()

print('New DOB updated')

if what=='others':

other=input('please enter what do you want to change...1)loanamont...2)loantype....3)final\_amount\_to \_be\_repaid:')

id="""INSERT INTO TABLE correctionrequest(custid) VALUES FROM customer WHERE fname='%s';"""%(name,)

crsr.execute(id)

connection.commit()

nloan=input('please enter the amount you specify to be changed to:')

nfpay=input('please enter the final amount you specify to be changed to:')

input(nloan)

input(nfpay)

nvalues="""INSERT INTO TABLE correctionrequest(fname,loanamount,final\_amount\_to\_be\_repaid) VALUES('%s','%s','%s');"""%(name,nloan,nfpay,)

crsr.execute(nvalues,input)

connection.commit()

print('Thank you for your response...... a bank official will contact you soon....')

if update=='no':

print('Thank you for using ILMS')

if server=='1':

print('connecting to server')

username=input('Enter your username:')

if username=='Barath':

password=input('Enter your password:')

if password=='Barath':

print('what do you want to do....1)correction request....2)debtpay...3)lateemi...4)collectionagency')

do=input('enter what ro do:')

if do=='1':

import mysql.connector

connection=mysql.connector.connect(host="localhost",user="root",password="Barath",database="mydb")

crsr=connection.cursor()

sql\_command3="""Select\* from customer"""

crsr.execute(sql\_command3)

ans=crsr.fetchall()

print(ans)

print('correction request table is processing please wait this may take few sec')

ntab="""SELECT\* FROM correctionrequest"""

crsr.execute(ntab)

ans=crsr.fetchall()

print(ans)

correction=('is there any correction request pending:')

if correction=='yes':

custname=input('enter cust fname:')

nrepay=input('please enter the correct final amount to be repaid:')

input(repay)

input(custname)

NVAL="""UPDATE customer SET final\_amount\_to\_be\_repaid='%s' where fname='%s';"""%(nrepay,custname,)

crsr.execute(NVAL,input)

connection.commit()

dele="""DELETE FROM correctionrequest WHERE fname='%s';"""%(custname,)

crsr.execute(dele)

connection.commit()

connection.close()

print('changes successfully done')

if correction=='no':

print('Thank you')

if do=='2':

import mysql.connector

connection=mysql.connector.connect(host="localhost",user="root",password="Barath",database="mydb")

crsr=connection.cursor()

name=input('please enter cust fname:')

debt=input('please enter the amount cust wants to pay:')

input(name)

input(debt)

debtpay="""UPDATE customer SET final\_amount\_to\_be\_repaid=final\_amount\_to\_be\_repaid-%s WHERE fname='%s';"""%(debt,name,)

crsr.execute(debtpay)

connection.commit()

print('TRANSACTION SUCCESSFULL')

print('please wait until we send your Ebill')

BILL="""SELECT mobileno FROM customer where fname='%s'"""%(name,)

crsr.execute(BILL)

for i in crsr:

print(i)

print('Is above shown mobileno your mobile number')

bill=input('confirm by pressing yes:')

if bill=='yes':

print('your Ebill is successfully sent to your number')

if bill=='no':

mobileno=input('please enter your old mobileno:')

Newmobileno=('please enter your new number:')

input(Newmobileno)

input(mobileno)

Mobileno="""UPDATE customer SET mobileno='%s' WHERE mobileno='%s'"""%(Newmobileno,mobileno,)

crsr.execute(Mobileno,input)

connection.commit()

print('New mobileno updated')

print('Ebill successfully sent to your number')

connection.close()

print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*YOUR DUE FOR THS MONTH IS SUCESSFULLY PAID\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*','\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*PLEASE RETURN NEXT MONTH FOR PAYING THE NEXT DUE\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*',sep='\n')

if do=='3':

import mysql.connector

connection=mysql.connector.connect(host="localhost",user="root",password="Barath",database="mydb")

crsr=connection.cursor()

name=input('enter customer name:')

latefee="""SELECT\* customer Dues\_per\_month+200 WHERE fname='%s';"""%(name,)

crsr.execute(latefee)

for i in crsr:

print(i)

debtpay="""UPDATE customer SET final\_amount\_to\_be\_repaid='final\_amount\_to\_be\_repaid'-'Dues\_per\_month' WHERE fname='%s';"""%(name,)

crsr.execute(debtpay,input)

connection.commit()

print('please wait until we send your Ebill')

BILL="""SELECT mobileno FROM customer where fname='%s'"""%(name,)

crsr.execute(BILL)

for i in crsr:

print(i)

print('Is above shown mobileno your mobile number')

bill=input('confirm by pressing yes:')

if bill=='yes':

print('your Ebill is successfully sent to your number')

if bill=='no':

mobileno=input('please enter your old mobileno:')

Newmobileno=('please enter your new number:')

input(Newmobileno)

input(mobileno)

Mobileno="""UPDATE customer SET mobileno='%s' WHERE mobileno='%s'"""%(Newmobileno,mobileno,)

crsr.execute(Mobileno,input)

connection.commit()

print('New mobileno updated')

print('Ebill successfully sent to your number')

connection.close()

print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*YOUR DUE FOR THS MONTH IS SUCESSFULLY PAID\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*','\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*PLEASE RETURN NEXT MONTH FOR PAYING THE NEXT DUE\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*',sep='/n')

if do=='4':

import mysql.connector

connection=mysql.connector.connect(host="localhost",user="root",password="Barath",database="mydb")

crsr=connection.cursor()

name=input('enter customer fname:')

otp=input('enter otp produced from customer:')

st="""DECLARE@Otp;"""

Set="""SET@Otp=(SELECT OTP FROM OTP WHERE fname='%s');"""%(name,)

crsr.execute(Set)

sel="""SELECT@Otp;"""

crsr.execute(sel)

Otp=crsr.fetchone()[0]

result=str("%s"%Otp)

if otp==result:

debtpay="""UPDATE customer SET final\_amount\_to\_be\_repaid='final\_amount\_to\_be\_repaid'-'Dues\_per\_month' WHERE fname='%s';"""%(name,)

crsr.execute(debtpay)

connection.commit()

print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*TRANSACTION SUCCESSFULL\*\*\*\*\*\*\*\*\*\*\*')

print('please wait until we send your Ebill')

BILL="""SELECT mobileno FROM customer where fname='%s'"""%(name,)

crsr.execute(BILL)

for i in crsr:

print(i)

print('Is above shown mobileno your mobile number')

bill=input('confirm by pressing yes:')

if bill=='yes':

print('your Ebill is successfully sent to your number')

if bill=='no':

mobileno=input('please enter your old mobileno:')

Newmobileno=('please enter your new number:')

input(Newmobileno)

input(mobileno)

Mobileno="""UPDATE customer SET mobileno='%s' WHERE mobileno='%s'"""%(Newmobileno,mobileno,)

crsr.execute(Mobileno,input)

connection.commit()

print('New mobileno updated')

print('Ebill successfully sent to your number')

dele="""DELETE FROM OTP WHERE fname='%s';"""%(name,)

crsr.execute(dele)

connection.commit()

connection.close()

print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*YOUR DUE FOR THS MONTH IS SUCESSFULLY PAID\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*','\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*PLEASE RETURN NEXT MONTH FOR PAYING THE NEXT DUE\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*',sep='\n')

else:

print('otp entered is wrong')

else:

print('username enetered is wrong')

## SQL QUERIES

**TABLE 1:**

**CUSTOMER:**

CREATE TABLE customer

(

custid VARCHAR(6),

fname VARCHAR(30),

mname VARCHAR(30),

ltname VARCHAR(30),

loanamount int(100),

loantype varchar(30),

Dues\_per\_month int(10),

years int(7),

Interest\_rate int(7),

city VARCHAR(15),

mobileno VARCHAR(10),

occupation VARCHAR(10),

dob DATE,

final\_amount\_to\_be\_repaid Int(10),

CONSTRAINT customer\_custid\_pk PRIMARY KEY(custid)

);

INSERT INTO customer VALUES('C00001','Barath','Kumar','Jayaprakash','500000','vehicle','8418','5','2','Delhi','8838693856','Engineer','2004-03-15','501000');

INSERT INTO customer VALUES('C00002','Abhinav','ramakrishnan','Null','1000000','home','4219','20','2.5','Delhi','9360660661','Military','2003-10-20','1012604');

INSERT INTO customer VALUES('C00003','Surya','moorthy',null,'100000','personal','4199','2','1.5','Delhi','8526389515','Buisness','2003-09-25','100783');

INSERT INTO customer VALUES('C00004','Israel',';joshua',null,'300000','education','6298','4','1.25','Delhi','9999900000','Student','2003-11-13','302302');

alter table customer ADD date\_of\_loan TIMESTAMP;

UPDATE customer SET date\_of\_loan='2020-11-1 00:00:00';

DESC customer;

**TABLE 2:**

**CORRECTION REQUEST TABLE:**

CREATE TABLE correctionrequest

(

custid VARCHAR(6) DEFAULT NULL,

loanamount VARCHAR(10) DEFAULT NULL,

final\_amount\_to\_be\_repaid VARCHAR(10) DEFAULT NULL,

CONSTRAINT customer\_custid\_pk PRIMARY KEY(custid)

);

ALTER TABLE correctionrequest ADD(fname VARCHAR(10) DEFAULT NULL);

ALTER TABLE correctionrequest MODIFY fname varchar(10) AFTER custid;

ALTER TABLE correctionrequest

MODIFY custid VARCHAR(6) default NULL;

ALTER TABLE correctionrequest MODIFY fname VARCHAR(10) DEFAULT NULL;

ALTER TABLE correctionrequest MODIFY loanamount VARCHAR(10) DEFAULT NULL;

ALTER TABLE correctionrequest MODIFY final\_amount\_to\_be\_repaid VARCHAR(10) default NULL;

**TABLE 3:**

**OTP:**

CREATE TABLE OTP

(

custid VARCHAR(6) DEFAULT NULL,

fname VARCHAR(30) DEFAULT NULL,

OTP INT DEFAULT NULL,

CONSTRAINT customer\_custid\_pk PRIMARY KEY(custid)

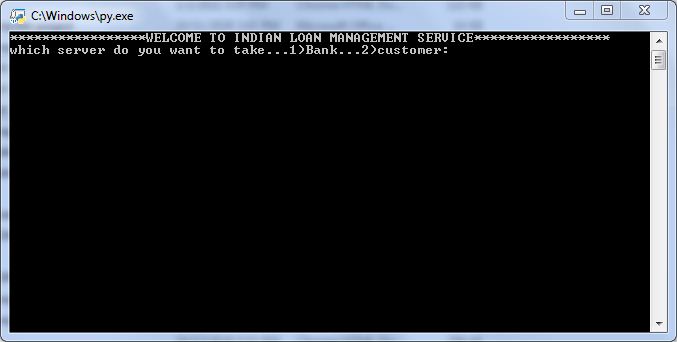
);

DESC OTP;

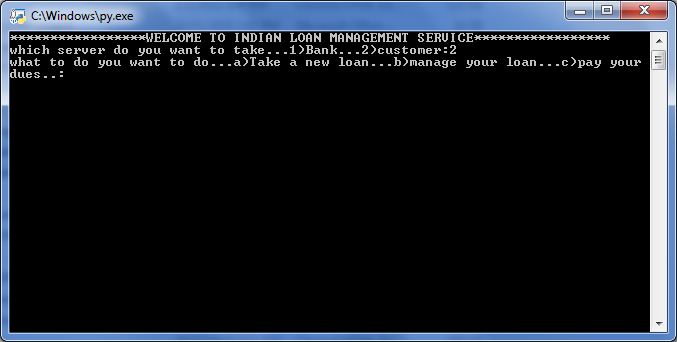
TRUNCATE OTP;

# OUTPUT

**Main Menu** :



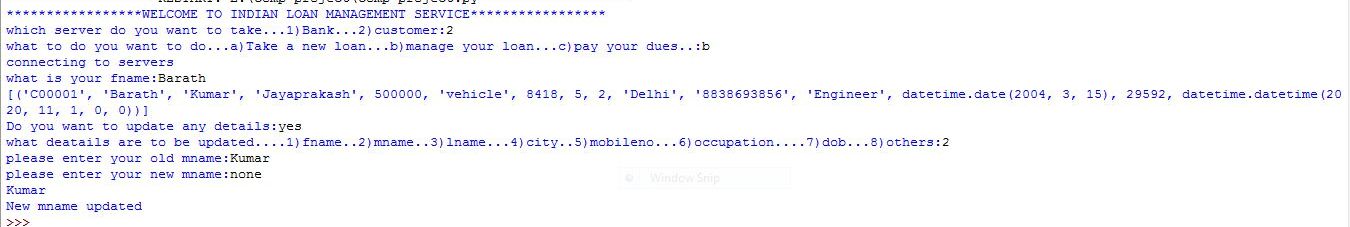
**Option 2:-Customer service program,**

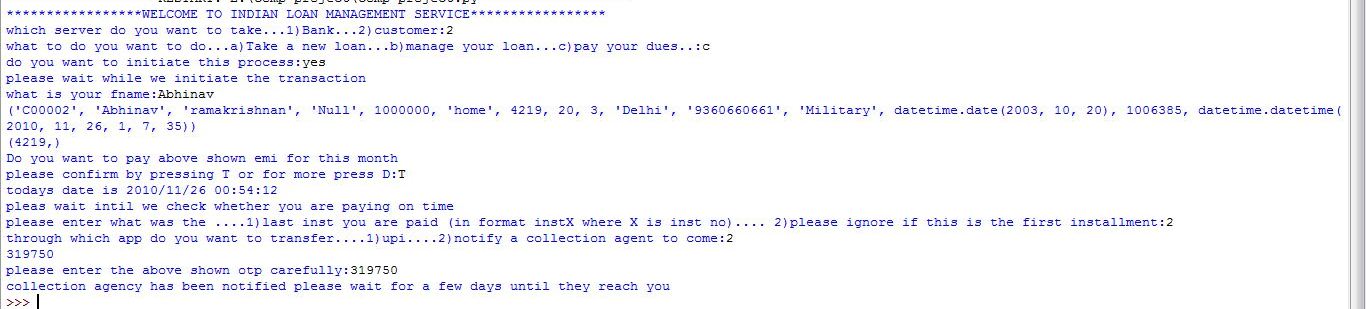


**Option a:-Take a new loan,**



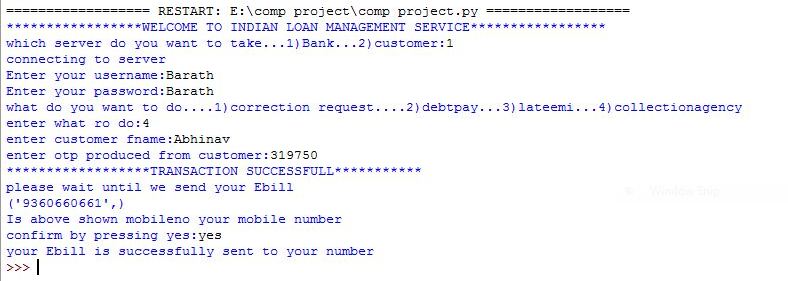
Option B:-Manage your loan,



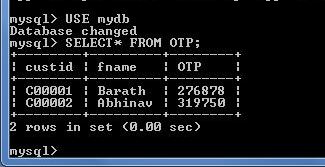
**Option c:-Pay your dues,**

**Option 1:-Bank service program,**

**Option 4:-collection agency,**



**Table OTP:-**



**Table Customer:-**



# ANALYSIS

* User-friendly:

On asking for an option to select, the user enters the number of the option from main menu and in the end, the query is successful hence making the program user-friendly.

* Database management:

Since the project is based on database management system which is connected to python, with inputs, the records are arranged in tables systematically.

* Simple program:

Because it is based on simple python and SQL commands, there is rarely an opportunity for error.

* It consists of the simplest form of management of data, i.e., through tables, yet systematic and safe.

# SCOPE OF IMPROVEMENT

* Add as many records you want for getting a new loan in future as coding is available to improve it further .
* Edit your given details if any is incorrect in future as coding is available to improve it further too..
* A particular time period can be set and to send a notification to your mobile to pay your dues if we go deep into python language in future.
* As limited to use python language any developments can be made using other languages in future

# BIBLIOGRAPHY:

1. Sumita Arora- Computer Science with Python, 9th ed., Textbook for class XI (2019), Dhanpat Rai & Co., (ISBN 978-81-7700-230-0)
2. Sumita Arora, Computer Science with Python, 13th ed., Textbook

for class XII (2020), Dhanpat Rai & Co.,

(ISBN 978-81-7700-236-2)

1. <https://www.freecodecamp.org/news/connect-python-with-sql/>
2. <https://stackoverflow.com/questions/tagged/python>