In [ ]:

```python
In [1]:  import datetime as date
         import mysql.connector as sql
         from curses.ascii import isalpha, isdigit
         SpecialSym = ['$', '@', '#', '%']
         dates1 = date.datetime.now()
         mycon = sql.connect(host="localhost", user="root", password="root", database="dhanu")
         mycur = mycon.cursor()

         while True:
             print("\n")
             print("_____")
             print("******************  Welcome To Colony Bank Of India  ******************")
             print("_____")
             print("Press 1 to for Sign Up ")
             print("Press 2 to for Sign In  ")
             print("Press 3 to quit")

             try:
                 ch = int(input("Enter Your Choice : "))
                 if ch < 1 or ch > 3:
                     raise ValueError("Oops! That was not a valid number. Try again... :( ")

                 if ch == 1:
                     while True:
                         try:
                             ut = input("Enter Your Name Here: ")
                             if any(char in SpecialSym or char in ".!?,&*=" for char in ut):
                                 raise TypeError
                             break
                         except TypeError:
                             print("Special Characters are not allowed like . , @ # $ % * & = < > ? !")

                     while True:
                         try:
                             p = input("Enter Your User Name: ")
                             if any(char in SpecialSym or char in ".!?,&*=" for char in p):
                                 raise TypeError
                             break
                         except TypeError:
                             print("Special Characters are not allowed like . , @ # $ % * & = < > ? !")
```

```python
        while True:
            try:
                z = input("Enter Your Password: ")
                if len(z) < 6:
                    raise ValueError("Password should contain at least 6 characters")
                if not any(char.isdigit() for char in z):
                    raise ValueError("Password should contain at least 1 number")
                if not any(char.isupper() for char in z):
                    raise ValueError("Password should contain at least 1 uppercase letter")
                if not any(char.islower() for char in z):
                    raise ValueError("Password should contain at least 1 lowercase letter")
                if not any(char in SpecialSym for char in z):
                    raise ValueError("Password should contain at least 1 special character")
                break
            except ValueError as e:
                print(e)

    k = int(input("Enter the Amount of money you want to deposit: "))

        while True:
            try:
                a = input("Enter Your Date of Birth (DD/MM/YYYY): ")
                a = date.datetime.strptime(a, "%d/%m/%Y").date()
                break
            except ValueError:
                print("Please enter Date of birth in proper format: DD/MM/YYYY")

    s = input("Enter Your Address: ")

        while True:
            try:
                d = input("Enter Your Phone Number: ")
                if len(d) != 10 or not d.isdigit():
                    raise ValueError("Please enter a valid 10-digit Number")
                break
            except ValueError as e:
                print(e)

        while True:
            try:
                f = input("Enter Your 12-Digit Aadhar Number: ")
                if len(f) != 12 or not f.isdigit():
                    raise ValueError("Please enter a valid 12-digit Aadhar Number")
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```python
                    break
            except ValueError as e:
                print(e)

        q = "INSERT INTO bank (Name, UserName, Password, DateOfBirth, Address, Mobile_Number, Aadhar_no, Balance) VALUES (%s,
        values = (ut, p, z, a, s, d, f, k)
        mycur.execute(q, values)
        mycon.commit()

        print("\n")
        print("_____")
        print("***********Account Has Been Created Successfully. Kindly Login***********")
        print("_____")

    elif ch == 2:
        u = input("Enter Your Username: ")
        p = input("Enter Your Password: ")
        a = "SELECT * FROM bank WHERE UserName=%s AND Password=%s"
        mycur.execute(a, (u, p))
        data = mycur.fetchall()

        if data:
            while True:
                print("\n")
                print("_____")
                print("*************** Welcome To Colony Bank Of India: ***********************")
                print("_____")
                print("\n")
                print("Press 1 To Withdraw Money")
                print("Press 2 To Deposit Money")
                print("Press 3 To View Last Five Transactions")
                print("Press 4 To View Your Profile")
                print("Press 5 To Update Account Details")
                print("Press 6 To Delete Your Account Permanently")
                print("Press 7 To Log Out")

                try:
                    ch1 = int(input("Enter Your Choice: "))
                    if ch1 < 1 or ch1 > 7:
                        raise ValueError("Invalid choice, please select a number between 1 and 7")
                except ValueError as e:
                    print(e)
                    continue
```

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        if ch1 == 1:
            try:
                np = "SELECT Balance FROM bank WHERE UserName=%s"
                mycur.execute(np, (u,))
                bal = mycur.fetchone()[0]
            except Exception:
                print("Oops! Something went wrong.")

            print("\n")
            print("_____ ")
            print("Your Account Balance is: ", bal)
            print("_____")
            print("\n")

            while True:
                try:
                    a1 = int(input("Enter the amount for withdrawal: "))
                    if a1 <= bal:
                        credited = 0
                        t6 = "UPDATE bank SET Balance = GREATEST(0, Balance - %s) WHERE UserName=%s"
                        mycur.execute(t6, (a1, u))
                        mycon.commit()

                        bp = "INSERT INTO transaction (Credited, Debited, UserName, Date) VALUES (%s, %s, %s, %s)"
                        mycur.execute(bp, (credited, a1, u, dates1))
                        mycon.commit()

                        np9 = "SELECT Balance FROM bank WHERE UserName=%s"
                        mycur.execute(np9, (u,))
                        bal1 = mycur.fetchall()  # or fetchone() depending on your query

                        print("\n")
                        print("_____")
                        print(f"Your UserName {u} is debited with Rs {a1} on {dates1}")
                        print(f"towards Net Banking. Available balance is Rs: {bal1} ₹ only")
                        print("_____")
                    else:
                        print("_____")
                        print("   ********* OOPS Insufficient Balance Please Try Again!  **********")
                        print("_____")
                    break
                except ValueError:
                    print("_____")
                    print("   ***OOPs that was an invalid input***  :)  ")
```

```python
                print("_____ ")
                continue

        elif ch1 == 2:  # Deposit Money
            Debited = 0

            while True:
                try:
                    a11 = input("Enter the amount to deposit: ")
                    if not a11.isdigit():
                        raise ValueError("Amount must be a number")
                    else:
                        t6 = "UPDATE bank SET Balance = Balance + %s WHERE UserName=%s"
                        mycur.execute(t6, (a11, u))
                        mycon.commit()

                        mn = "INSERT INTO transaction (Credited, Debited, UserName, Date) VALUES (%s, %s, %s, %s)"
                        mycur.execute(mn, (a11, Debited, u, dates1))
                        mycon.commit()

                        np9 = "SELECT Balance FROM bank WHERE UserName=%s"
                        mycur.execute(np9, (u,))
                        bal2 = mycur.fetchone()[0]
                        print("\n")
                        print("_____")
                        print(f"Your UserName {u} is credited with Rs {a11} on {dates1}")
                        print(f"towards Net Banking. Available balance is Rs: {bal2} ₹ only")
                        print("_____")
                        break
                except ValueError as e:
                    print(e)

        elif ch1 == 3:
            prt = "SELECT Credited, Debited, Date FROM transaction WHERE UserName=%s ORDER BY Date DESC LIMIT 5"
            mycur.execute(prt, (u,))
            print("_____")
            print("*************** The Transaction Details are as Follows *******************")
            print("\n")
            for i in mycur:
                print("_____")
                print(f"Credited: {i[0]}, Debited: {i[1]}, Date: {i[2]}")
                print("_____")

        elif ch1 == 4:
```

```python
        nmm = "SELECT Name, UserName, Password, DateOfBirth, Address, Mobile_Number, Aadhar_no, Balance FROM bank
        mycur.execute(nmm, (u,))
        print("_____")
        print("*******************************ACCOUNT DETAILS *******************************")
        print("_____")
        print("\n")
        print("_____")
        print("    Name        Username      Password      DOB        Address      Mob No      Aadhar No    Balance")
        print("_____")
        print("\n")
        for i in mycur:
            print("_____")
            print(i)
            print("_____")


    elif ch1 == 5:
        while True:
            print("\n")
            print("_____")
            print("     *******    Account Settings *********        ")
            print("_____")
            print("Press 1 To Update Your Name")
            print("Press 2 To Update Your UserName")
            print("Press 3 To Update Your PassWord")
            print("Press 4 To Update Your Phone Number")
            print("Press 5 To Update Address")

            try:
                ch2 = int(input("Enter Your Choice: "))
                if ch2 < 1 or ch2 > 5:
                    raise ValueError("Invalid choice, please select a number between 1 and 5")
            except ValueError as e:
                print(e)
                continue
            break

        if ch2 == 1:
            try:
                name = input("Enter Your New Name: ")
                ns = "UPDATE bank SET Name=%s WHERE UserName=%s"
                mycur.execute(ns, (name, u))
                mycon.commit()
                print("_____")
                print("   ****Hurrey !!! Name is Updated Successfully***   :) ")
```

```python
            print("_____")
        except Exception as e:
            print("Oh Something Went Wrong !!!", e)

    elif ch2 == 2:
        try:
            mp = input("Enter Your New UserName: ")
            nm = "UPDATE bank SET UserName=%s WHERE Password=%s"
            mycur.execute(nm, (mp, p))
            mycon.commit()
            print("_____")
            print("   ****Hurrey !!! UserName is Updated Successfully***   :) ")
            print("_____")
        except Exception as e:
            print("Oh Something Went Wrong !!!", e)

    elif ch2 == 3:
        try:
            newpassword = input("Enter Your New Password: ")
            us = "UPDATE bank SET Password=%s WHERE UserName=%s"
            mycur.execute(us, (newpassword, u))
            mycon.commit()
            print("Hurrey !!! Password is Updated Successfully")
        except Exception as e:
            print("Oh Something Went Wrong !!!", e)

    elif ch2 == 4:
        while True:
            try:
                newphone = input("Enter Your New Phone Number: ")
                if len(newphone) != 10 or not newphone.isdigit():
                    raise ValueError("Please enter a valid 10-digit Number")
                us = "UPDATE bank SET Mobile_Number=%s WHERE UserName=%s"
                mycur.execute(us, (newphone, u))
                mycon.commit()
                print("_____")
                print("   ****Hurrey !!! Mobile Number is Updated Successfully***   :) ")
                print("_____")
                break
            except ValueError as e:
                print(e)
                continue

    elif ch2 == 5:
```

```python
            try:
                newadd = input("Enter Your New Address: ")
                ns1 = "UPDATE bank SET Address=%s WHERE UserName=%s"
                mycur.execute(ns1, (newadd, u))
                mycon.commit()
                print("_____")
                print("   *** Hurrey !!! Address is Updated Successfully ***  :) ")
                print("_____")
            except Exception as e:
                print("Oh Something Went Wrong !!!", e)

        elif ch1 == 6:
            try:
                ps = "DELETE FROM bank WHERE UserName=%s"
                mycur.execute(ps, (u,))
                mycon.commit()

                gs = "DELETE FROM transaction WHERE UserName=%s"
                mycur.execute(gs, (u,))
                mycon.commit()

                print("\n")
                print("_____")
                print("************* ACCOUNT HAS BEEN DELETED SUCCESSFULLY ******************")
                print("_____")
                print("\n")
                break
            except Exception as e:
                print("Oh Something Went Wrong !!!", e)

        elif ch1 == 7:
            print("\n")
            print("_____")
            print("*************Thanks For Choosing Colony Bank Of India ****************")
            print("_____")
            break

    else:
        print("\n")
        print("_____")
        print("         Login Failed Please Try Again        :( ")
        print("_____")
        print("\n")
```

```python
        elif ch == 3:
            print("***Run me again***")
            break

    except ValueError as e:
        print("\n")
        print("_____")
        print(e)
        print("_____")
    except Exception as e:
        print("\n")
        print("_____")
        print(f"An error occurred: {e}")
        print("_____")
```

```
_____
******************  Welcome To Colony Bank Of India   ******************
_____
Press 1 to for Sign Up
Press 2 to for Sign In
Press 3 to quit
Enter Your Choice : 1
Enter Your Name Here: dhanu
Enter Your User Name: dd
Enter Your Password: 1234@Dhanu
Enter the Amount of money you want to deposit: 4000
Enter Your Date of Birth (DD/MM/YYYY): 14/01/2005
Enter Your Address: tthindal
Enter Your Phone Number: 9345648204
Enter Your 12-Digit Aadhar Number: 123456789012


_____
***********Account Has Been Created Successfully. Kindly Login************
_____



_____
******************  Welcome To Colony Bank Of India   ******************
_____
Press 1 to for Sign Up
Press 2 to for Sign In
Press 3 to quit
Enter Your Choice : 2
Enter Your Username: dd
Enter Your Password: 1234@Dhanu



_____
*************** Welcome To Colony Bank Of India: ************************
_____


Press 1 To Withdraw Money
Press 2 To Deposit Money
Press 3 To View Last Five Transactions
Press 4 To View Your Profile
Press 5 To Update Account Details
```

```
Press 6 To Delete Your Account Permanently
Press 7 To Log Out
Enter Your Choice: 1


_____
Your Account Balance is:  4000
_____



Enter the amount for withdrawal: 100


_____
Your UserName dd is debited with Rs 100 on 2024-05-28 18:26:52.952852
towards Net Banking. Available balance is Rs: [(3900,)] ₹ only
_____



_____
*************** Welcome To Colony Bank Of India: ************************
_____



Press 1 To Withdraw Money
Press 2 To Deposit Money
Press 3 To View Last Five Transactions
Press 4 To View Your Profile
Press 5 To Update Account Details
Press 6 To Delete Your Account Permanently
Press 7 To Log Out
Enter Your Choice: 2
Enter the amount to deposit: 100


_____
Your UserName dd is credited with Rs 100 on 2024-05-28 18:26:52.952852
towards Net Banking. Available balance is Rs: 4000 ₹ only
_____



_____
*************** Welcome To Colony Bank Of India: ************************
_____
```

```
Press 1 To Withdraw Money
Press 2 To Deposit Money
Press 3 To View Last Five Transactions
Press 4 To View Your Profile
Press 5 To Update Account Details
Press 6 To Delete Your Account Permanently
Press 7 To Log Out
Enter Your Choice: 3

_____
*************** The Transaction Details are as Follows ********************


_____
Credited: 0, Debited: 100, Date: 2024-05-28
_____
_____
Credited: 100, Debited: 0, Date: 2024-05-28
_____



_____
*************** Welcome To Colony Bank Of India: ************************
_____


Press 1 To Withdraw Money
Press 2 To Deposit Money
Press 3 To View Last Five Transactions
Press 4 To View Your Profile
Press 5 To Update Account Details
Press 6 To Delete Your Account Permanently
Press 7 To Log Out
Enter Your Choice: 4

_____
********************************ACCOUNT DETAILS ********************************
_____



_____
    Name      Username    Password    DOB     Address    Mob No    Aadhar No   Balance
_____
```

_____

('dhanu', 'dd', '1234@Dhanu', datetime.date(2005, 1, 14), 'tthindal', '9345648204', '123456789012', 4000)

_____

_____

*************** Welcome To Colony Bank Of India: *************************

_____

Press 1 To Withdraw Money
Press 2 To Deposit Money
Press 3 To View Last Five Transactions
Press 4 To View Your Profile
Press 5 To Update Account Details
Press 6 To Delete Your Account Permanently
Press 7 To Log Out
Enter Your Choice: 5

_____

   *******   Account Settings *********

_____

Press 1 To Update Your Name
Press 2 To Update Your UserName
Press 3 To Update Your PassWord
Press 4 To Update Your Phone Number
Press 5 To Update Address
Enter Your Choice: 5
Enter Your New Address: thindal

_____

   *** Hurrey !!! Address is Updated Successfully *** :)

_____

_____

*************** Welcome To Colony Bank Of India: *************************

_____

Press 1 To Withdraw Money
Press 2 To Deposit Money
Press 3 To View Last Five Transactions

```
Press 4 To View Your Profile
Press 5 To Update Account Details
Press 6 To Delete Your Account Permanently
Press 7 To Log Out
Enter Your Choice: 6


_____
************* ACCOUNT HAS BEEN DELETED SUCCESSFULLY ******************
_____




_____
******************  Welcome To Colony Bank Of India   ******************
_____
Press 1 to for Sign Up
Press 2 to for Sign In
Press 3 to quit
Enter Your Choice : 3
***Run me again***
```

In [ ]:

In [ ]: