Assignment No4:

Q1: Create a BankAccount class with public attributes for account_number and balance. Add private attributes for __owner_name and __pin. Implement methods to get and set these attributes securely.

NOTE: I've created the program with class name BankAccount, including various basic methods of a common bank account has/required, all the methods taking user input and command to proceed what user want to do. The above-mentioned methods are set private.

```
class BankAccount:
    def __init__(self):
        self.__pin = ""
        self.__bal = 0
        self.__Main()

    def __Main(self):
        while True:
            print("What to proceed?")
            Usr = int(input("1.Create account\n2.Enter pin to login\n3.Exit\nEnter here:"))
            if Usr == 1:
                self.__account()
            elif Usr == 2:
                self.__PIN()
            elif Usr == 3:
                print("Thanks!")
                break

    def __account(self):
        name = input("Enter your full name:")
        Cnic = int(input("Enter CNIC number without dashes:"))
```

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    fName = input("Enter father's name:")
    age = int(input("Enter age:"))
    if age < 18:
        print("You are not eligible.")
    gen = input("Enter gender:")

    if not self.__pin:
        self.__pin = int(input("Enter four digits to create your PIN:"))
        print(f"Remember! Your PIN: {self.__pin}")
    else:
        print("Account already exists, select an option to proceed.")

def __PIN(self):
    pinn = int(input("Enter your four-digit PIN:"))
    if pinn == self.__pin:
        print("Logged in successfully!")
        self.__sub()
    else:
        print("Incorrect PIN. Try again.")

def __sub(self):
    while True:
        print("\nProceed your process.")
        Usr = int(input("1.Check balance\n2.Withdraw\n3.Deposit\n4.Exit:"))
        if Usr == 1:
            self.__Balance()
        elif Usr == 2:
```

```
            self.__draw()
        elif Usr == 3:
            self.__depo()
        elif Usr == 4:
            print("Thanks!")
            break
    def __Balance(self):
        print(f"Current balance: {self.__bal}")

    def __draw(self):
        amount = int(input("Enter amount:"))
        if amount > self.__bal:
            print(f"Insufficient balance!")
            print(f"Your current balance is {self.__bal}")
        else:
            print(f"{amount} withdrew successfully")
            self.__bal -= amount
            print(f"Remaining balance: {self.__bal}")

    def __depo(self):
        amount = int(input("Enter amount:"))
        self.__bal += amount
        print(f"{amount} deposited successfully!")
        print(f"New balance: {self.__bal}")


atm = BankAccount()
```