**BANK SYSTEM\_OOPS**

class BankAccount:

def \_\_init\_\_(self, account\_number, account\_holder, password, address, phone, balance=0.0):

self.account\_number = account\_number

self.account\_holder = account\_holder

self.password = password

self.address = address

self.phone = phone

self.balance = balance

def deposit(self, amount):

if amount > 0:

self.balance += amount

print(f"${amount} deposited successfully: current balance is {self.balance}")

else:

print("Invalid deposit amount")

def withdraw(self, amount):

if 0 < amount <= self.balance:

self.balance -= amount

print(f"${amount} withdrawn successfully: current balance is {self.balance}")

else:

print("Insufficient balance")

def check\_balance(self):

print(f"Current balance: {self.balance}")

def account\_info(self):

print(f"Account Number: {self.account\_number}")

print(f"Account Holder Name: {self.account\_holder}")

print(f"Address: {self.address}")

print(f"Phone Number: {self.phone}")

print(f"Balance: {self.balance}")

def verify\_password(self, password):

return self.password == password # Method to verify password

class BankSystem:

def \_\_init\_\_(self):

self.accounts = {}

def create\_account(self, account\_number, account\_holder, address, phone, initial\_balance, password):

if account\_number in self.accounts:

print("Account already exists")

else:

new\_account = BankAccount(account\_number, account\_holder, password, address, phone, initial\_balance)

self.accounts[account\_number] = new\_account

print(f"Account for {account\_holder} created successfully")

def login(self, account\_number, password):

account = self.accounts.get(account\_number)

if account and account.verify\_password(password): # Correct password verification

print("Login successful")

return account

else:

print("Invalid account or password")

return None

def main():

bank = BankSystem()

while True:

print("\nBanking System")

print("1. Create Account")

print("2. Login")

print("3. Exit")

choice = input("Select an option: ")

if choice == '1':

account\_number = input("Enter account number: ")

account\_holder = input("Enter account holder name: ")

password = input("Input your password: ")

address = input("Enter your permanent address: ")

phone = input("Enter your phone number: ")

initial\_balance = float(input("Enter your initial deposit amount: "))

bank.create\_account(account\_number, account\_holder, address, phone, initial\_balance, password)

elif choice == '2':

account\_number = input("Enter your account number: ")

password = input("Enter password: ")

account = bank.login(account\_number, password)

if account:

while True:

print("\nAccount Menu")

print("1. Deposit")

print("2. Withdraw")

print("3. Check Balance")

print("4. Account Info:")

print("5. Logout")

choice1 = input("Select an option: ")

if choice1 == '1':

amount = float(input("Enter amount to deposit: "))

account.deposit(amount)

elif choice1 == '2':

amount = float(input("Enter amount to withdraw: "))

account.withdraw(amount)

elif choice1 == '3':

account.check\_balance()

elif choice1 == '4':

account.account\_info()

elif choice1 == '5':

print("Logged out successfully")

break

else:

print("Invalid option!")

elif choice == '3':

print("Thank you for using the banking system")

break

else:

print("Invalid option")

if \_\_name\_\_ == "\_\_main\_\_":

main()

**screenshots are given below:**



