OOPs - Banking

October 22, 2024

[ ]:
```python
class BankAccount:
    def __init__(self, username, password, balance=0):
        self.username = username
        self.password = password
        self.balance = balance

    def deposit(self, amount):
        if amount > 0:
            self.balance += amount
            print(f"Deposited {amount}. New balance is {self.balance}")
        else:
            print("Deposit amount must be positive.")

    def withdraw(self, amount):
        if amount > 0:
            if self.balance >= amount:
                self.balance -= amount
                print(f"Withdrew {amount}. New balance is {self.balance}")
            else:
                print("Insufficient balance.")
        else:
            print("Withdrawal amount must be positive.")

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


class BankSystem:
    def __init__(self):
        self.accounts = {}

    def create_account(self, username, password):
        if username in self.accounts:
            print("Username already exists. Please choose another one.")
        else:
            self.accounts[username] = BankAccount(username, password)
            print(f"Account created for {username}.")
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    def login(self, username, password):
        if username in self.accounts and self.accounts[username].password ==␣
↪password:
            print(f"Welcome {username}!")
            return self.accounts[username]
        else:
            print("Invalid login. Please try again.")
            return None


def main():
    bank = BankSystem()

    while True:
        print("\n--- Banking System ---")
        print("1. Create an account")
        print("2. Login")
        print("3. Exit")
        choice = input("Enter your choice: ")

        if choice == '1':
            username = input("Enter a username: ")
            password = input("Enter a password: ")
            bank.create_account(username, password)

        elif choice == '2':
            username = input("Enter your username: ")
            password = input("Enter your password: ")
            account = bank.login(username, password)

            if account:
                while True:
                    print("\n--- Account Menu ---")
                    print("1. Deposit")
                    print("2. Withdraw")
                    print("3. Check Balance")
                    print("4. Logout")
                    account_choice = input("Enter your choice: ")

                    if account_choice == '1':
                        amount = float(input("Enter amount to deposit: "))
                        account.deposit(amount)

                    elif account_choice == '2':
                        amount = float(input("Enter amount to withdraw: "))
                        account.withdraw(amount)
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                    elif account_choice == '3':
                        account.check_balance()

                    elif account_choice == '4':
                        print("Logged out.")
                        break

                    else:
                        print("Invalid choice. Please try again.")

        elif choice == '3':
            print("Thank you for using the Banking System. Goodbye!")
            break

        else:
            print("Invalid choice. Please try again.")


if __name__ == "__main__":
    main()
```

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--- Banking System ---
1. Create an account
2. Login
3. Exit

Enter your choice:  1
Enter a username:  Renjitha
Enter a password:  Renjitha96

Account created for Renjitha.

--- Banking System ---
1. Create an account
2. Login
3. Exit

Enter your choice:  2
Enter your username:  Renjitha
Enter your password:  Renjitha96

Welcome Renjitha!

--- Account Menu ---
1. Deposit
2. Withdraw
3. Check Balance
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```
4. Logout

Enter your choice:  1
Enter amount to deposit:  15000

Deposited 15000.0. New balance is 15000.0

--- Account Menu ---
1. Deposit
2. Withdraw
3. Check Balance
4. Logout

Enter your choice:  4

Logged out.

--- Banking System ---
1. Create an account
2. Login
3. Exit
```

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