OOPs- Banking

October 22, 2024

```python
[3]: 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()
```

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

Enter your choice:  3

Thank you for using the Banking System. Goodbye!
```

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