

Test Case ID	01	Passed/Failed
Test Case	Successful Admin log in	
Steps	Expected	Actual Result
1. Run Programme	Banking system app starts successfully and it asks for username	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username:</pre>
2. Enter: Arthur	Username taken and the programme will ask for a password	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', wdir='C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username==username matched Enter the Password: </pre>
3. Enter: 123	Login successful and the admin menu will be displayed	<pre>Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username==username matched Enter the Password: 123 You have now logged in, Arthur Please select an option: 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option: </pre>

Test Case ID	02	Passed/Failed
Test Case	Log in with incorrect Username/password	
Steps	Expected	Actual Result
1. Run Programme	Banking system app start successfully and ask for Username.	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffb Documents/base code - banking_system_2d689394665c87267127fa70718ffb2') Welcome to the Banking system, please login first Enter the Username:</pre>
2. Enter: Arthur	Username taken and programme will ask for the password	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffb Documents/base code - banking_system_2d689394665c87267127fa70718ffb2') Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username-=username matched Enter the Password: </pre>
3. Enter: wrong password	Login failed and it gives the message incorrect password and take you back to enter username	<pre>Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username-=username matched Enter the Password: wrong password Error:Invalid Password Searching for username-=username didn't match Searching for username-=username didn't match Searching for username-=username didn't match Enter the Username: </pre>

Test Case ID	03	Passed/Failed
Test Case	User deposits money	
Steps	Expected	Actual Result
1. Run Programme	Banking system app run successfully and ask for username	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', w Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username:</pre>
2. Enter: Chloe	Username matched and programme ask for password	<pre>In [4]: runfile(C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', w Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Reloaded modules: banking_system Welcome to the Banking system, please login first Enter the Username: Chloe Searching for username==username didn't match Searching for username==username didn't match Searching for username==username matched Enter the Password: </pre>
3. Enter:1+x	Password valid and login successful and customer display menu appears	<pre>Welcome to the Banking system, please login first Enter the Username: Chloe Searching for username==username didn't match Searching for username==username didn't match Searching for username==username matched Enter the Password: 1+x You have now logged in, Chloe 3--Saving account 2--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: </pre>

<p>4. Input option: 1</p>	<p>Option 1 selected all the account for Chloe appeared and system asked to select an account.</p>	<pre> Welcome to the Banking system, please login first Enter the Username: Chloe Searching for username-=username didn't match Searching for username-=username didn't match Searching for username-=username matched Enter the Password: 1+x You have now logged in, Chloe 3--Saving account 2--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4000.0 2 - Current account: \$1000.0 Enter a number to select your option: </pre>	
<p>5. Select account:1</p>	<p>Account 1 selected and option appeared for deposit, withdraw and go back. System asks to select an option</p>	<pre> You have now logged in, Chloe 3--Saving account 2--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4000.0 2 - Current account: \$1000.0 Enter a number to select your option: 1 You selected 1 - Saving account: \$4000.0. Please select an option: 1 - Deposit 2 - Withdraw 3 - Go back Enter the number to select your option: </pre>	

6. Enter: 1 to deposit	Deposit option selected and now system ask to input amount to deposit.	<pre> 5 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4000.0 2 - Current account: \$1000.0 Enter a number to select your option: 1 You selected 1 - Saving account: \$4000.0. Please select an option: 1 - Deposit 2 - Withdraw 3 - Go back Enter the number to select your option: 1 Enter the amount you want to deposit: </pre>	
7. Enter: 500	Amount added to the account and programme closed	<pre> 2 - View summary 3 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4000.0 2 - Current account: \$1000.0 Enter a number to select your option: 1 You selected 1 - Saving account: \$4000.0. Please select an option: 1 - Deposit 2 - Withdraw 3 - Go back Enter the number to select your option: 1 Enter the amount you want to deposit: 500 Amount Added to the account </pre>	

8. Confirm amount changed from 4000 to 4500	Restart the system, in account details of Chloe saving account should have 4500 now.	<pre>Enter the Username: Chloe Searching for username-=username didn't match Searching for username-=username didn't match Searching for username-=username matched Enter the Password: 1+x You have now logged in, Chloe 3--Saving account 2--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4500.0 2 - Current account: \$1000.0</pre>
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Test Case ID	04	Passed/Failed
Test Case	User withdraws money-successful	
Steps	Expected	Actual Result
1. Run programme	Banking System starts and ask of username	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', w Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username:</pre>
2. Enter: Chloe	Username matched and now system ask for password	<pre>In [2]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', w Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Reloaded modules: banking_system Welcome to the Banking system, please login first Enter the Username: Chloe Searching for username-=username didn't match Searching for username-=username didn't match Searching for username-=username matched Enter the Password: </pre>
3. Enter:1+x	Password is correct and menu for customer displayed. System asks to select an option	<pre>Welcome to the Banking system, please login first Enter the Username: Chloe Searching for username-=username didn't match Searching for username-=username didn't match Searching for username-=username matched Enter the Password: 1+x You have now logged in, Chloe 3--Saving account 2--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: </pre>

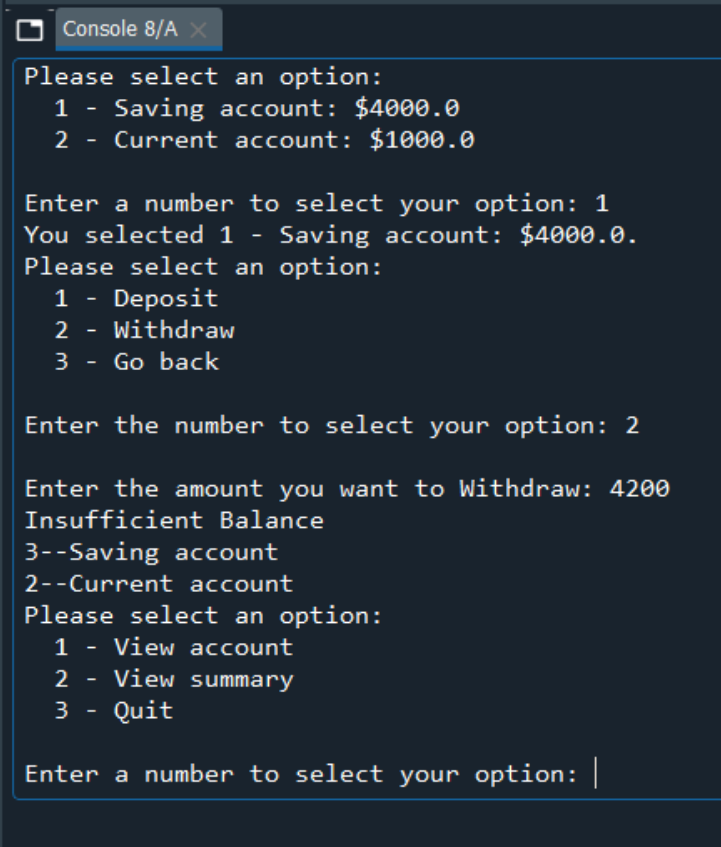
4. Enter:1	Account for Chloe displayed and system ask to select an account	<pre> Welcome to the Banking system, please login first Enter the Username: Chloe Searching for username==username didn't match Searching for username==username didn't match Searching for username==username matched Enter the Password: 1+x You have now logged in, Chloe 3--Saving account 2--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4500.0 2 - Current account: \$1000.0 Enter a number to select your option: </pre>	
5. Enter:1	Account: 1 selected system ask for withdraw, deposit or go back	<pre> Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4500.0 2 - Current account: \$1000.0 Enter a number to select your option: 1 You selected 1 - Saving account: \$4500.0. Please select an option: 1 - Deposit 2 - Withdraw 3 - Go back Enter the number to select your option: </pre>	

6. Enter: 2 to withdraw	System now asks for the amount to withdraw	<pre> 3 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4500.0 2 - Current account: \$1000.0 Enter a number to select your option: 1 You selected 1 - Saving account: \$4500.0. Please select an option: 1 - Deposit 2 - Withdraw 3 - Go back Enter the number to select your option: 2 Enter the amount you want to Withdraw: </pre>	
7. Enter:500 to withdraw	Amount withdrawn successfully and programme closed	<pre> Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4500.0 2 - Current account: \$1000.0 Enter a number to select your option: 1 You selected 1 - Saving account: \$4500.0. Please select an option: 1 - Deposit 2 - Withdraw 3 - Go back Enter the number to select your option: 2 Enter the amount you want to Withdraw: 500 Amount: 500.0 withdrawn Searching for username-=username didn't match </pre>	

8. Confirm amount withdrawn	Restart the system, in account details of Chloe 4000 should be there for account 1	<pre>Enter the Username: Chloe Searching for username-=username didn't match Searching for username-=username didn't match Searching for username-=username matched Enter the Password: 1+x You have now logged in, Chloe 3--Saving account 2--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4000.0 2 - Current account: \$1000.0 Enter a number to select your option: </pre>
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Test Case ID	05	Passed/Failed
Test Case	User withdraw money: insufficient funds	
Steps	Expected	Actual Result
1. Run Programme	Banking system app run successfully and ask for username	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', w Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username:</pre>
2. Enter: Chloe	Username matched and programme ask for password	<pre>In [2]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', w Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Reloaded modules: banking_system Welcome to the Banking system, please login first Enter the Username: Chloe Searching for username-=username didn't match Searching for username-=username didn't match Searching for username-=username matched Enter the Password: </pre>
3. Enter:1+x	Password valid and login successful and customer display menu appears	<pre>Welcome to the Banking system, please login first Enter the Username: Chloe Searching for username-=username didn't match Searching for username-=username didn't match Searching for username-=username matched Enter the Password: 1+x You have now logged in, Chloe 3--Saving account 2--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: </pre>

4. Input option: 1	Option 1 selected all the account for Chloe appeared and system asked to select an account.	<pre> Welcome to the Banking system, please login first Enter the Username: Chloe Searching for username-=username didn't match Searching for username-=username didn't match Searching for username-=username matched Enter the Password: 1+x You have now logged in, Chloe 3--Saving account 2--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4000.0 2 - Current account: \$1000.0 Enter a number to select your option: </pre>
5. Select account:1	Account 1 selected and option appeared for deposit, withdraw and go back. System asks to select an option	<pre> You have now logged in, Chloe 3--Saving account 2--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4000.0 2 - Current account: \$1000.0 Enter a number to select your option: 1 You selected 1 - Saving account: \$4000.0. Please select an option: 1 - Deposit 2 - Withdraw 3 - Go back Enter the number to select your option: </pre>
6. Enter: 2 to withdraw	System asks for the amount to be withdrawn	<pre> Please select an option: 1 - Deposit 2 - Withdraw 3 - Go back Enter the number to select your option: 2 Enter the amount you want to Withdraw: </pre>

<p>7. Enter: 4200(which is more than the balance)</p>	<p>System gives the insufficient balance warning and takes you back to the display menu</p>	 <pre>Console 8/A X Please select an option: 1 - Saving account: \$4000.0 2 - Current account: \$1000.0 Enter a number to select your option: 1 You selected 1 - Saving account: \$4000.0. Please select an option: 1 - Deposit 2 - Withdraw 3 - Go back Enter the number to select your option: 2 Enter the amount you want to Withdraw: 4200 Insufficient Balance 3--Saving account 2--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: </pre>
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Test Case ID	06	Passed/Failed
Test Case	Verify the account balance are saved and loaded correctly by restarting the application	
Steps	Expected	Actual Result
1. Run Programme	Banking system app run successfully and ask for username	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', w Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username:</pre>
2. Enter: Chloe	Username matched and programme ask for password	<pre>In [2]: runfile(C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', w Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Reloaded modules: banking_system Welcome to the Banking system, please login first Enter the Username: Chloe Searching for username-=username didn't match Searching for username-=username didn't match Searching for username-=username matched Enter the Password: </pre>
3. Enter:1+x	Password valid and login successful and customer display menu appears	<pre>Welcome to the Banking system, please login first Enter the Username: Chloe Searching for username-=username didn't match Searching for username-=username didn't match Searching for username-=username matched Enter the Password: 1+x You have now logged in, Chloe 3--Saving account 2--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: </pre>

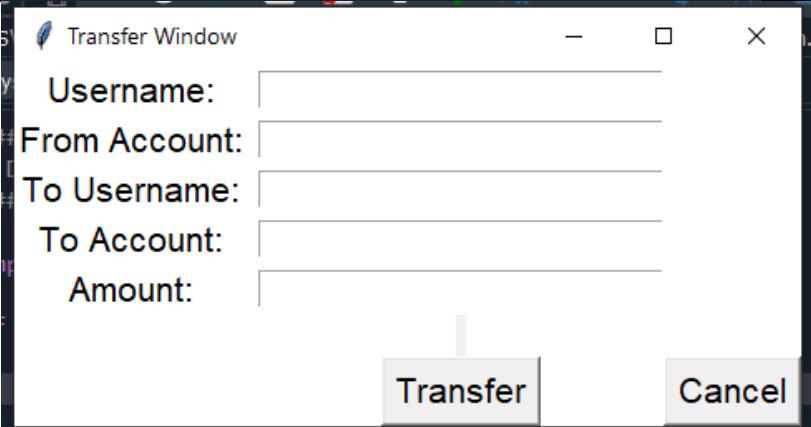
<p>4. Input option: 1</p>	<p>Option 1 selected all the account for Chloe appeared and system asked to select an account.</p>	<pre> Welcome to the Banking system, please login first Enter the Username: Chloe Searching for username-=username didn't match Searching for username-=username didn't match Searching for username-=username matched Enter the Password: 1+x You have now logged in, Chloe 3--Saving account 2--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4000.0 2 - Current account: \$1000.0 Enter a number to select your option: </pre>	
<p>5. Select account:1</p>	<p>Account 1 selected and option appeared for deposit, withdraw and go back. System asks to select an option</p>	<pre> You have now logged in, Chloe 3--Saving account 2--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4000.0 2 - Current account: \$1000.0 Enter a number to select your option: 1 You selected 1 - Saving account: \$4000.0. Please select an option: 1 - Deposit 2 - Withdraw 3 - Go back Enter the number to select your option: </pre>	

6. Enter: 1 to deposit	Deposit option selected and now system ask to input amount to deposit.	<pre> 5 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4000.0 2 - Current account: \$1000.0 Enter a number to select your option: 1 You selected 1 - Saving account: \$4000.0. Please select an option: 1 - Deposit 2 - Withdraw 3 - Go back Enter the number to select your option: 1 Enter the amount you want to deposit: </pre>	
7. Enter: 500	Amount added to the account and programme closed	<pre> 2 - View summary 3 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4000.0 2 - Current account: \$1000.0 Enter a number to select your option: 1 You selected 1 - Saving account: \$4000.0. Please select an option: 1 - Deposit 2 - Withdraw 3 - Go back Enter the number to select your option: 1 Enter the amount you want to deposit: 500 Amount Added to the account </pre>	

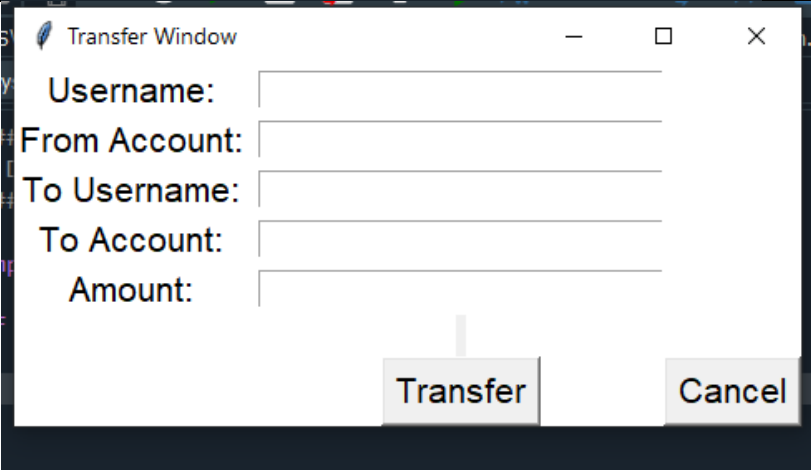
8. Confirm amount changed from 4000 to 4500	Restart the system, in account details of Chloe saving account should have 4500 now.	<pre>Enter the Username: Chloe Searching for username-=username didn't match Searching for username-=username didn't match Searching for username-=username matched Enter the Password: 1+x You have now logged in, Chloe 3--Saving account 2--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4500.0 2 - Current account: \$1000.0</pre>
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Test Case ID	07	Passed/Failed
Test Case	Admin views the customer summary	
Steps	Expected	Actual Result
1. Run Programme	Banking system app starts successfully and it asks for username	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base_code - banking_system_2d689394665c87267127fa70718ffbb2/Documents/base_code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username:</pre>
2. Enter: Arthur	Username taken and the programme will ask for a password	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base_code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', wdir='C:/Users/DELLS/Documents/base_code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username=username matched Enter the Password: </pre>
3. Enter: 123	Login successful and the admin menu will be displayed and ask for the option to select	<pre>Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username=username matched Enter the Password: 123 You have now logged in, Arthur Please select an option: 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option: </pre>
4. Enter: 1 to display customer summary	Customer summary for each customer has been displayed and programme has been closed	<pre>Please select an option: 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option:1 ----- Name: Boris Address: 10, London Road --Accounts-- 1 - Current account -- balance: \$1000, Over-draft limit: 100 ----- Name: Chloe Address: 99, Queens Road --Accounts-- 3 - Saving account -- balance: \$4000.0, Interest rate: 2.99% 2 - Current account -- balance: \$1000.0, Over-draft limit: 100.0 ----- Name: David Address: 2, Birmingham Street --Accounts-- 4 - Saving account -- balance: \$200.0, Interest rate: 0.99% 5 - Saving account -- balance: \$5000.0, Interest rate: 4.99% -----</pre>

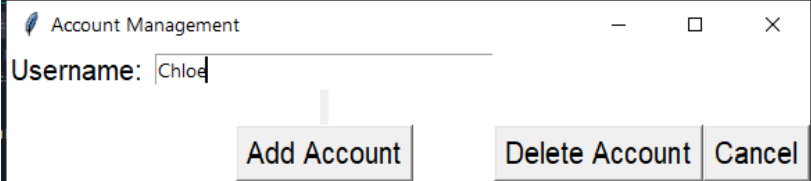
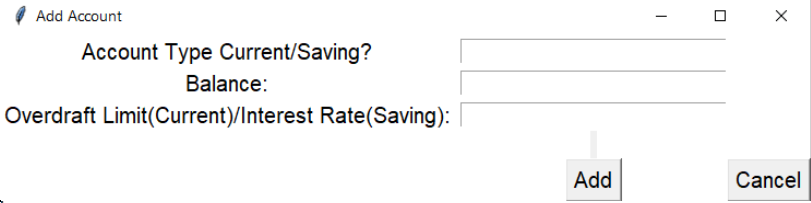
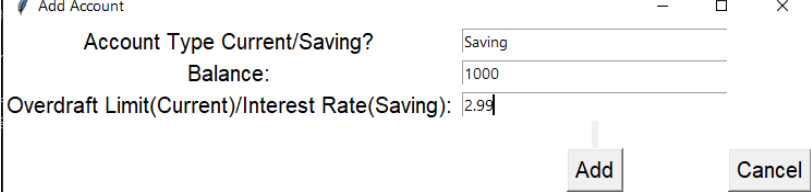
Test Case ID	08	Passed/Failed
Test Case	Admin views the financial forecast	
Steps	Expected	Actual Result
1. Run Programme	Banking system app starts successfully and it asks for username	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base_code - banking_system_2d689394665c87267127fa70718ffbb2/Documents/base_code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username:</pre>
2. Enter: Arthur	Username taken and the programme will ask for a password	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base_code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', wdir='C:/Users/DELLS/Documents/base_code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username=username matched Enter the Password: </pre>
3. Enter: 123	Login successful and the admin menu will be displayed and ask for the option to select	<pre>Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username=username matched Enter the Password: 123 You have now logged in, Arthur Please select an option: 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option: </pre>
4. Enter: 2 to display financial forecast	Financial forecast for each customer has been displayed and programme has been closed	<pre>Enter a number to select your option:2 ----- Name: Boris Total number of bank accounts: 1 Total money in the bank: \$1000 Total money after a year forecast: \$1000 ----- Name: Chloe Total number of bank accounts: 2 Total money in the bank: \$5000.0 Total money after a year forecast: \$4880.4 ----- Name: David Total number of bank accounts: 2 Total money in the bank: \$5200.0 Total money after a year forecast: \$4948.52 ----- Searching for username=username didn't match Searching for username=username didn't match Searching for username=username didn't match</pre>

Test Case ID	09	Passed/Failed
Test Case	Admin transfer money-same customer, different accounts.	
Steps	Expected	Actual Result
1. Run Programme	Banking system app starts successfully and it asks for username	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username:</pre>
2. Enter: Arthur	Username taken and the programme will ask for a password	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', wdir='C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username=username matched Enter the Password: </pre>
3. Enter: 123	Login successful and the admin menu will be displayed and ask for the option to select	<pre>Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username=username matched Enter the Password: 123 You have now logged in, Arthur Please select an option: 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option: </pre>
4. Enter: 3 to transfer money	Transfer window appear for money transfer	

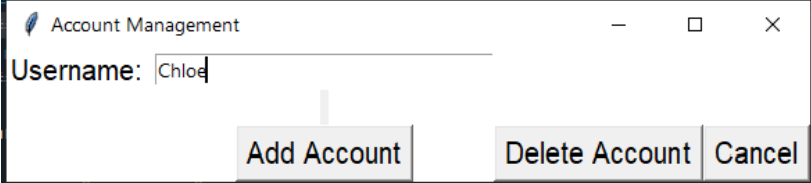
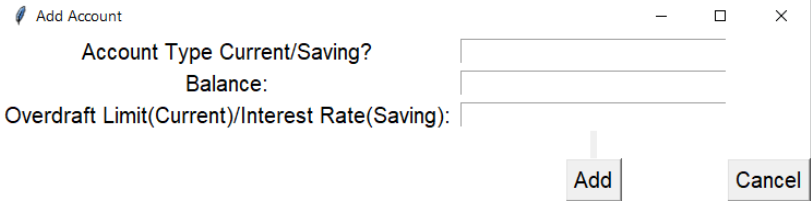
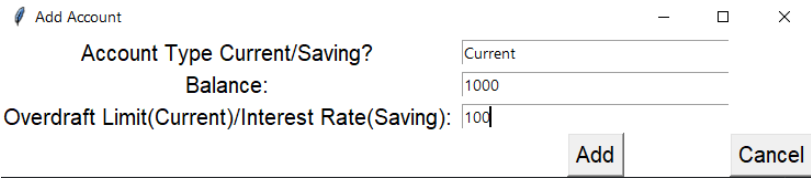
5. Enter: same username and different account And amount =500 click transfer	Transfer successful Amount 500 transferred	
6. Verify	Screenshot Transferred money in database	

Test Case ID	10	Passed/Failed
Test Case	Admin transfer money- between two customers	
Steps	Expected	Actual Result
1. Run Programme	Banking system app starts successfully and it asks for username	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username:</pre>
2. Enter: Arthur	Username taken and the programme will ask for a password	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', wdir='C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username==username matched Enter the Password: </pre>
3. Enter: 123	Login successful and the admin menu will be displayed and ask for the option to select	<pre>Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username==username matched Enter the Password: 123 You have now logged in, Arthur Please select an option: 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option: </pre>
4. Enter: 3 to transfer money	Transfer window appear for money transfer	

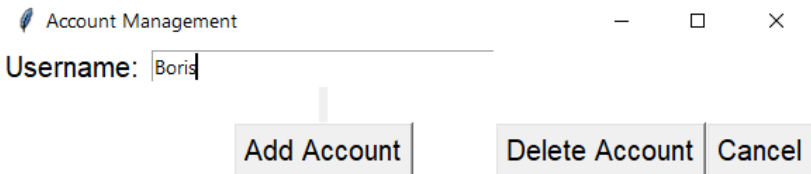
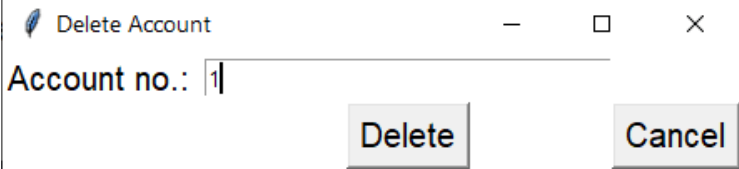
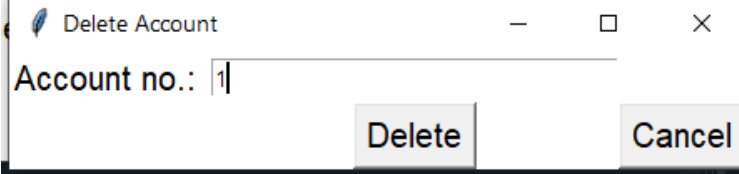
5. Enter: different username and accounts	Transfer successful	
6. verification	Account database amount 200 transferred from Chloe to David	<pre>"Chloe": ["ChLoe", "1+x", "customer", ["99", "Queens Road"], [[3, "Saving", 2.99, 4500.0], [2, "Current", 100.0, 300.0]]], "David": ["David", "aBC", "customer", ["2", "Birmingham Street"], [[4, "Saving", 0.99, 400.0], [</pre>

Test Case ID	11	Passed/Failed
Test Case	Admin adds a saving account to a customer	
Steps	Expected	Actual Result
1. Run Programme	Banking system app starts successfully and it asks for username	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username:</pre>
2. Enter: Arthur	Username taken and the programme will ask for a password	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', wdir='C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username=username matched Enter the Password: </pre>
3. Enter: 123	Login successful and the admin menu will be displayed and ask for the option to select	<pre>Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username=username matched Enter the Password: 123 You have now logged in, Arthur Please select an option: 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option: </pre>
4. Enter: 4 for account management	Account management window appear	
5. Input Username and Press button :Add	Add account window appear	
6. Input account details with Saving Account type	Account Added	

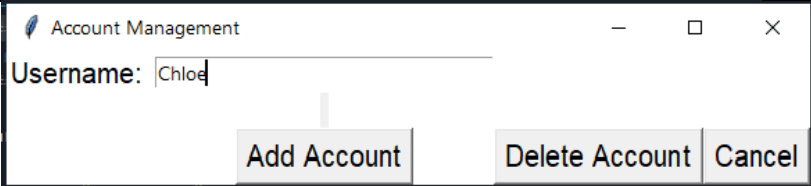
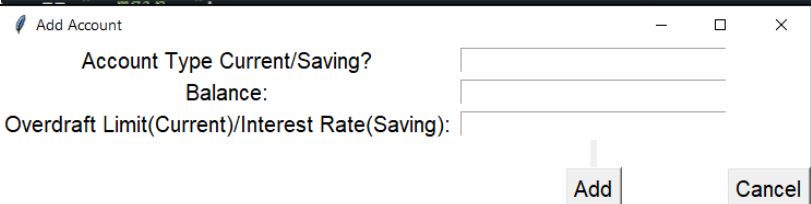
		<pre>Enter the Password: 123 You have now logged in, Arthur Please select an option: 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option:4 Your Account has been Added Account info: [195350255, 'Saving', 2.99, 1000.0]</pre>	
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Test Case ID	12	Passed/Failed
Test Case	Admin adds a Current account to a customer	
Steps	Expected	Actual Result
1. Run Programme	Banking system app starts successfully and it asks for username	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username:</pre>
2. Enter: Arthur	Username taken and the programme will ask for a password	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', wdir='C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username=username matched Enter the Password: </pre>
3. Enter: 123	Login successful and the admin menu will be displayed and ask for the option to select	<pre>Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username=username matched Enter the Password: 123 You have now logged in, Arthur Please select an option: 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option: </pre>
4. Enter: 4 for account management	Account management window appear	
5. Input Username and Press button :Add Account	Add account window appear	
6. Input Account details with current account type	Account added	

		<pre>Enter the Username: Arthur Searching for username==username matched Enter the Password: 123 You have now logged in, Arthur Please select an option: 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option:4 Your Account has been Added Account info: [28798600, 'Current', 100.0, 1000.0]</pre>	
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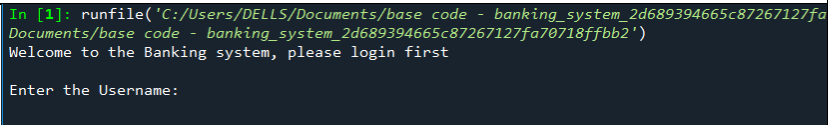
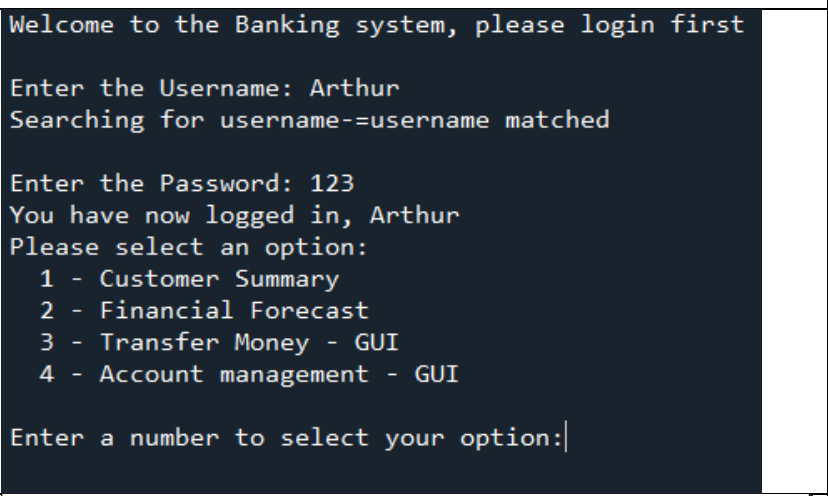
Test Case ID	13	Passed/Failed
Test Case	Admin deletes last account from a customer	
Steps	Expected	Actual Result
1. Run Programme	Banking system app starts successfully and it asks for username	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username:</pre>
2. Enter: Arthur	Username taken and the programme will ask for a password	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', wdir='C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username=username matched Enter the Password: </pre>
3. Enter: 123	Login successful and the admin menu will be displayed and ask for the option to select	<pre>Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username=username matched Enter the Password: 123 You have now logged in, Arthur Please select an option: 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option: </pre>
4. Enter: 4 for account management	Account management window appear	
5. Enter Username and press: Delete Account button	Delete window appear	
6. Enter Account no. to delete the account and press delete	It's the last account for the user so it will display message account cannot be deleted .	

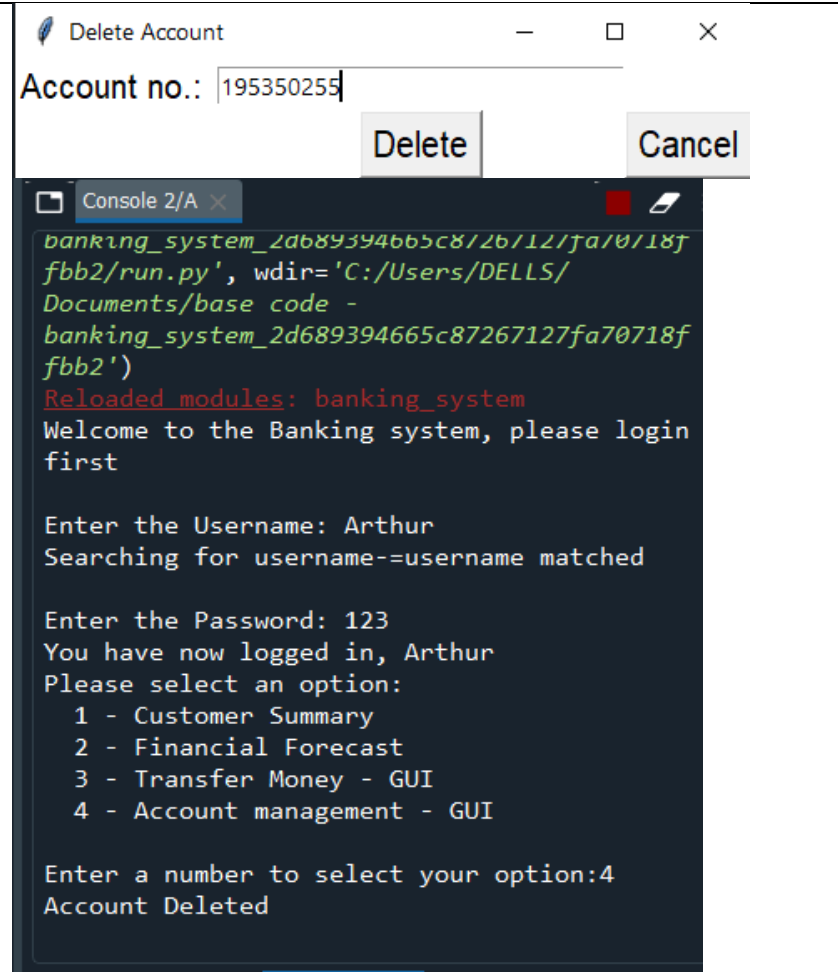
		<pre>Reloaded modules: banking_system Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username==username matched Enter the Password: 123 You have now logged in, Arthur Please select an option: 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option:4 Account cannot be deleted</pre>	
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Test Case ID	14	Passed/Failed
Test Case	Verify the newly added account is saved and loaded correctly by restarting the application.	
Steps	Expected	Actual Result
1. Run Programme	Banking system app starts successfully and it asks for username	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username:</pre>
2. Enter: Arthur	Username taken and the programme will ask for a password	<pre>In [1]: runfile('C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2/run.py', wdir='C:/Users/DELLS/Documents/base code - banking_system_2d689394665c87267127fa70718ffbb2') Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username=username matched Enter the Password: </pre>
3. Enter: 123	Login successful and the admin menu will be displayed and ask for the option to select	<pre>Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username=username matched Enter the Password: 123 You have now logged in, Arthur Please select an option: 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option: </pre>
4. Enter: 4 for account management	Account management window appear	
5. Input Username and Press button :Add	Add account window appear	

6. Input account details with Saving Account type	Account Added	<div data-bbox="590 197 1401 392"><p>Add Account</p><p>Account Type Current/Saving? <input type="text" value="Saving"/></p><p>Balance: <input type="text" value="1000"/></p><p>Overdraft Limit(Current)/Interest Rate(Saving): <input type="text" value="2.99"/></p><p>Add Cancel</p></div> <div data-bbox="590 392 1340 750"><p>Enter the Password: 123</p><p>You have now logged in, Arthur</p><p>Please select an option:</p><ul style="list-style-type: none">1 - Customer Summary2 - Financial Forecast3 - Transfer Money - GUI4 - Account management - GUI<p>Enter a number to select your option:4</p><p>Your Account has been Added</p><p>Account info: [195350255, 'Saving', 2.99, 1000.0]</p></div>
7. Verify from the database and run the program for the user and see the account	Saving account has been added and shown In the view account	<pre data-bbox="670 761 1085 1904">], "Chloe": ["Chloe", "1+x", "customer", ["99", "Queens Road"], [[3, "Saving", 2.99, 4500.0], [2, "Current", 100.0, 300.0], [195350255, "Saving", 2.99, 1000.0], [28798600, "Current", 100.0, 1000.0]]] }</pre>

		<pre>Enter the Password: 1+x You have now logged in, Chloe 3--Saving account 2--Current account 195350255--Saving account 28798600--Current account Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: 1 --Account list-- Please select an option: 1 - Saving account: \$4500.0 2 - Current account: \$300.0 3 - Saving account: \$1000.0 4 - Current account: \$1000.0 Enter a number to select your option: </pre>	
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Test Case ID	15	Passed/Failed
Test Case	Verify the newly removed account is saved and loaded correctly by restarting the application	
Steps	Expected	Actual Result
1. Run Programme	Banking system app starts successfully and it asks for username	
2. Enter: Arthur	Username taken and the programme will ask for a password	
3. Enter: 123	Login successful and the admin menu will be displayed and ask for the option to select	
4. Enter: 4 for account management	Account management window appear	
5. Enter Username and press: Delete Account button	Delete window appear	

<p>6. Enter account no. and press delete button</p>	<p>Message that Account has been deleted</p>	 <p>The screenshot displays two overlapping windows. The top window is titled 'Delete Account' and contains a text field labeled 'Account no.: 195350255' with two buttons, 'Delete' and 'Cancel'. The bottom window is a terminal titled 'Console 2/A' showing the following text:</p> <pre>banking_system_2d6893946b5c87267127fa70718f fbb2/run.py', wdir='C:/Users/DELLS/ Documents/base code - banking_system_2d689394665c87267127fa70718f fbb2') Reloaded modules: banking_system Welcome to the Banking system, please login first Enter the Username: Arthur Searching for username-=username matched Enter the Password: 123 You have now logged in, Arthur Please select an option: 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option:4 Account Deleted</pre>
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7. Verification of account deleted

Account verification through database and view account display

```
],
"Chloe": [
    "ChLoe",
    "1+x",
    "customer",
    [
        "99",
        "Queens Road"
    ],
    [
        [
            3,
            "Saving",
            2.99,
            4500.0
        ],
        [
            2,
            "Current",
            100.0,
            300.0
        ],
        [
            28798600,
            "Current",
            100.0,
            1000.0
        ]
    ]
],
"David": [
    "David",
    "aBC",
    "customer",
    ...
]
```

```
Searching for username==username didn't match
Searching for username==username matched

Enter the Password: 1+x
You have now logged in, Chloe
3--Saving account
2--Current account
28798600--Current account
Please select an option:
  1 - View account
  2 - View summary
  3 - Quit

Enter a number to select your option: 1
--Account list--
Please select an option:
  1 - Saving account: $4500.0
  2 - Current account: $300.0
  3 - Current account: $1000.0

Enter a number to select your option: |
```