TESTCASE 1: SUCCESSFUL ADMIN LOG IN

Test Case ID	1	Passed/Failed
Test Case	Successful Admin log in	
Steps	**Expected**	**Actual Result**
1. Run run.py to start the program	Banking System app starts correctly and asks the user for the Username	`In [14]: runfile('C:/Users/Atef/Desktop/base code - banking_system (2)/run.py', wdir='C:/Users/Atef/Desktop/base code - banking_system (2)')` `Reloaded modules: banking_system` `Welcome to the banking system, please log in first` `Please enter your username:`
2. Enter "Arthur" in the text prompt "Please enter your username"	Username is taken by the system and the programme will ask for the password.	`Welcome to the banking system, please log in first` `Please enter your username: Arthur` `Please enter your password:`
3. Enter "123" in the text prompt "Please enter your password"	The login will be successful and will display the Admin Menu.	`Please enter your username: Arthur` `Please enter your password: 123` `1 - Customer Summary` `2 - Financial Forecast` `3 - Transfer Money - GUI` `4 - Account management - GUI` `Enter a number to select your option:`

Test Case ID	2	Passed/Failed
Test Case	Log in with incorrect username/password.	
Steps	**Expected**	**Actual Result**
1. Run run.py to start the program	Banking System app starts correctly and asks the user for the Username	`In [16]: runfile('C:/Users/Atef/Desktop/base code - banking_system (2)/run.py', wdir='C:/Users/Atef/Desktop/base code - banking_system (2)')` `Reloaded modules: banking_system` `Welcome to the banking system, please log in first` `Please enter your username:`
2. Enter an incorrect username e.g. "Collin" in the text prompt "Please enter your username"	The username will then be taken into the system and will ask for the password	`Reloaded modules: banking_system` `Welcome to the banking system, please log in first` `Please enter your username: Collin` `Please enter your password:`
3. Enter an incorrect password e.g. "321" in the text prompt "Please enter your password"	The password will be taken into the system and the system will return "Invalid username/password" in which you will retry with correct login details.	`Welcome to the banking system, please log in first` `Please enter your username: Collin` `Please enter your password: 321` `Invalid username/password` `Welcome to the banking system, please log in first` `Please enter your username:`

Test Case ID	3	Passed/Failed
Test Case	User deposits money (must verify the new balance).	
Steps	Expected	Actual Result
1. Run run.py to start the program	Banking System app starts correctly and asks the user for the Username	In [17]: runfile('C:/Users/Atef/Desktop/base code - banking_system (2)/run.py', wdir='C:/Users/Atef/Desktop/base code - banking_system (2)') Reloaded modules: banking_system Welcome to the banking system, please log in first Please enter your username:
2. Enter "Boris" into the text prompt "Please enter your username"	The system will take the username as "Boris" and will then ask for the password.	Welcome to the banking system, please log in first Please enter your username: Boris Please enter your password:
3. Enter "ABC" into the text prompt "Please enter your password"	The system will take the password and will verify that the username, password is correct and display the appropriate menu (Customer or Admin menu). It will also ask the user to select an option in the menu	Welcome to the banking system, please log in first Please enter your username: Boris Please enter your password: ABC Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option:
4. Enter "1" into the text prompt "Enter a number to select your option"	The system will take this user input and display all the users accounts along with their individual balances.	Welcome to the banking system, please log in first Please enter your username: Boris Please enter your password: ABC 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 - Current Account: £1000 Enter a number to select your option:

5. Enter "1" into the text prompt "Enter a number to select your option" to select the first account	The system will select the first account in the list and display the account menu where users can later select deposit.	--Account list--
		Please select an option:
		1 - Current Account: £1000
		
		Enter a number to select your option: 1
		You selected 1 - Current Account: £1000
		Please select an option:
		    1 - Deposit
		    2 - Withdraw
		    3 - Go back
		
		Enter a number to select your option:

6. Enter "1" into the text prompt "Enter a number to select your option" to select the first	The system will select deposit from the list of options, it will then prompt the user "Please enter the amount you would like to deposit"	Please select an option:
		    1 - Deposit
		    2 - Withdraw
		    3 - Go back
		
		Enter a number to select your option: 1
		
		Please enter the amount you would like to Deposit:

option (Deposit)		
| 7. Enter the desired Deposit amount into the text prompt "Please enter the amount you would like to deposit" | The system will add this deposit to the available balance for the customer that is logged in, it will then update the new balance and display it to the user | ```
Please select an option:
        1 - Deposit
        2 - Withdraw
        3 - Go back

Enter a number to select your option: 1

Please enter the amount you would like to Deposit: 5000
6000
--Account list--
Please select an option:
1 - Current Account: £6000

Enter a number to select your option: |
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Test Case ID	4	**Passed**/Failed
Test Case	User Withdraw money (must verify the new balance).	
Steps	**Expected**	**Actual Result**
1. Run run.py to start the program	Banking System app starts correctly and asks the user for the Username	In [17]: runfile('C:/Users/Atef/Desktop/base code - banking_system (2)/run.py', wdir='C:/Users/Atef/Desktop/base code - banking_system (2)') Reloaded modules: banking_system Welcome to the banking system, please log in first Please enter your username:
2. Enter "Boris" into the text prompt "Please enter your username"	The system will take the username as "Boris" and will then ask for the password.	Welcome to the banking system, please log in first Please enter your username: Boris Please enter your password: |
3. Enter "ABC" into the text prompt "Please enter your password"	The system will take the password and will verify that the username, password is correct and display the appropriate menu (Customer or Admin menu). It will also ask the user to select an option in the menu	Welcome to the banking system, please log in first Please enter your username: Boris Please enter your password: ABC Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option: |
4. Enter "1" into the text prompt "Enter a number to select your option"	The system will take this user input and display all the users accounts along with their individual balances.	Welcome to the banking system, please log in first Please enter your username: Boris Please enter your password: ABC 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 - Current Account: £1000 Enter a number to select your option: |

5. Enter "2" into the text prompt "Enter a number to select your option" to select the first account	The system will select the first account in the list and display the account menu where users can later select Withdrawal.	--Account list--
		Please select an option:
		1 - Current Account: £1000
		
		Enter a number to select your option: 1
		You selected 1 - Current Account: £1000
		Please select an option:
		    1 - Deposit
		    2 - Withdraw
		    3 - Go back
		
		Enter a number to select your option:

6. Enter "2" into the text prompt "Enter a number to select your option" to select the first	The system will select Withdraw from the list of options, it will then prompt the user "Please enter the amount you would like to Withdraw"	Enter a number to select your option: 1
		You selected 1 - Current Account: £1000
		Please select an option:
		    1 - Deposit
		    2 - Withdraw
		    3 - Go back
		
		Enter a number to select your option: 2
		
		Please enter the amount you would like to Withdraw:

	option (Withdraw)		
7.	Enter the desired Withdraw amount into the text prompt "Please enter the amount you would like to Withdraw"	The system will take this Withdraw from the available balance for the customer that is logged in, it will then update the new balance and display it to the user	Please enter the amount you would like to Withdraw: 900 --Account list-- Please select an option: 1 - Current Account: £100 Enter a number to select your option: |

Test Case ID	5	Passed/Failed
Test Case	User withdraws money - no sufficient money (must verify the new balance).	
Steps	Expected	Actual Result
1. Run run.py to start the program	Banking System app starts correctly and asks the user for the Username	In [17]: runfile('C:/Users/Atef/Desktop/base code - banking_system (2)/run.py', wdir='C:/Users/Atef/Desktop/base code - banking_system (2)') Reloaded modules: banking_system Welcome to the banking system, please log in first Please enter your username:
2. Enter "Boris" into the text prompt "Please enter your username"	The system will take the username as "Boris" and will then ask for the password.	Welcome to the banking system, please log in first Please enter your username: Boris Please enter your password:
3. Enter "ABC" into the text prompt "Please enter your password"	The system will take the password and will verify that the username, password is correct and display the appropriate menu (Customer or Admin menu). It will also ask the user to select an option in the menu	Welcome to the banking system, please log in first Please enter your username: Boris Please enter your password: ABC Please select an option: 1 - View account 2 - View summary 3 - Quit Enter a number to select your option:
4. Enter "1" into the text prompt "Enter a number to select your option"	The system will take this user input and display all the users accounts along with their individual balances.	Welcome to the banking system, please log in first Please enter your username: Boris Please enter your password: ABC 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 - Current Account: £1000 Enter a number to select your option:

5. Enter "2" into the text prompt "Enter a number to select your option" to select the first account	The system will select the first account in the list and display the account menu where users can later select Withdrawal.	--Account list--
		Please select an option:
		1 - Current Account: £1000
		
		Enter a number to select your option: 1
		You selected 1 - Current Account: £1000
		Please select an option:
		        1 - Deposit
		        2 - Withdraw
		        3 - Go back
		
		Enter a number to select your option:

6. Enter "2" into the text prompt "Enter a number to select your option" to select the first	The system will select Withdraw from the list of options, it will then prompt the user "Please enter the	Enter a number to select your option: 1
		You selected 1 - Current Account: £1000
		Please select an option:
		        1 - Deposit
		        2 - Withdraw
		        3 - Go back
		
		Enter a number to select your option: 2
		
		Please enter the amount you would like to Withdraw:

option (Withdraw)	amount you would like to Withdraw"	
7. Enter a withdraw amount that is higher than the balance and overdraft in the text prompt "Please enter the amount you would like to withdraw"	The system will not be able to take this withdraw as it is over the available balance of the user, it will also verify the new balance.	Please enter the amount you would like to Withdraw: 1200 Insufficient balance to withdraw £1200 --Account list-- Please select an option: 1 - Current Account: £1000 Enter a number to select your option:

Test Case ID	7	Passed/Failed
Test Case	Admin views the customer Summary	
Steps	Expected	Actual Result
1. Run run.py to start the program	Banking System app starts correctly and asks the user for the Username	In [14]: runfile('C:/Users/Atef/Desktop/base code - banking_system (2)/run.py', wdir='C:/Users/Atef/Desktop/base code - banking_system (2)') Reloaded modules: banking_system Welcome to the banking system, please log in first Please enter your username:
2. Enter "Arthur" in the text prompt "Please enter your username"	Username is taken by the system and the programme will ask for the password.	Welcome to the banking system, please log in first Please enter your username: Arthur Please enter your password:	
3. Enter "123" in the text prompt "Please enter your password"	The login will be successful and will display the Admin Menu.	Please enter your username: Arthur Please enter your password: 123 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option:	
4. Enter "1" in the text prompt "Enter a number to select your option" to display the customer summary of all customers	The Customer summary will be displayed with all customers along with their information	Welcome to the banking system, please log in first Please enter your username: Arthur Please enter your password: 123 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option: 1 ['Boris 10 London Road 100 1000 0 Current Account '] ['Chloe 99 Queens Road 100 1000 4000 Current Account Saving Account 2.99'] ['David 2 Birmingham Street 0 200 5000 Saving Account Saving Account 0.99 4.99']

Test Case ID	8	Passed/Failed
Test Case	Admin views the Financial Forecast.	
Steps	Expected	Actual Result
5. Run run.py to start the program	Banking System app starts correctly and asks the user for the Username	In [14]: runfile('C:/Users/Atef/Desktop/base code - banking_system (2)/run.py', wdir='C:/Users/Atef/Desktop/base code - banking_system (2)') Reloaded modules: banking_system Welcome to the banking system, please log in first Please enter your username:
6. Enter "Arthur" in the text prompt "Please enter your username"	Username is taken by the system and the programme will ask for the password.	Welcome to the banking system, please log in first Please enter your username: Arthur Please enter your password:
7. Enter "123" in the text prompt "Please enter your password"	The login will be successful and will display the Admin Menu.	Please enter your username: Arthur Please enter your password: 123 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option:
8. Enter "2" in the text prompt "Enter a number to select your option" to display the Financial Forecast of all customers with interest	The financial forecast will be displayed with everyones forecast where interest will apply.	In [39]: runfile('C:/Users/Atef/Desktop/base code - banking_system (2)/run.py', wdir='C:/Users/Atef/Desktop/base code - banking_system (2)') Reloaded modules: banking_system Welcome to the banking system, please log in first Please enter your username: Arthur Please enter your password: 123 1 - Customer Summary 2 - Financial Forecast 3 - Transfer Money - GUI 4 - Account management - GUI Enter a number to select your option: 2 Chloe with 2 accounts has a total of £4000 with a yearly forecast of £4119.599999999999 David with 2 accounts has a total of £5200 with a yearly forecast of £5451.48