

Pentru proiectul final am ales urmatoarele aplicatii:

1. UI Testing:

<https://www.globalsqa.com/angularJs-protractor/BankingProject/#/login>

2. API testing:

<https://airportgap.dev-tester.com/docs>

API endpoints reference

- GET** /airports
- GET** /airports/:id
- POST** /airports/distance
- POST** /tokens
- GET** /favorites
- GET** /favorites/:id
- POST** /favorites
- PATCH** /favorites/:id
- DELETE** /favorites/:id
- DELETE** /favorites/clear_all

3. SQL testing:

- WIP

Documentation for **Banking Application**

Version 1.0

Business Requirements

The purpose of building this banking application is to provide an easy to use application for both the Managers and the Customers of XYZ Bank who own an account at his bank.

The administrators will be able to quickly manage customer accounts, to create new accounts as well as handle different issues related to customer's accounts. The users will be able to handle their accounts with no hassle just as making deposits and transfers in three different currencies.

Security is also a main concern, as all users will have high security at login and during all procedures.

The Bank Managers will have an overview about the customer's accounts and Customers will have the possibility to easily handle their existing balance.

Application build in

Operating system: Windows 11 Home

Version: 22H2

Browser: Google Chrome

Version 110.0.5481.178 (Official Build) (64-bit)

The main functionalities and features of the application as well as their detailed descriptions are the followings:

Home page (Login page) should contain the followings:

- a. Customer (CU) Login button
- b. Bank Manager (BM) Login button
- c. Home button

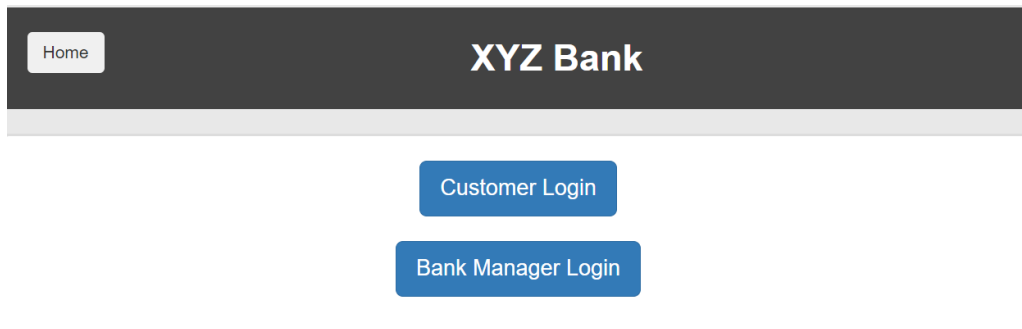
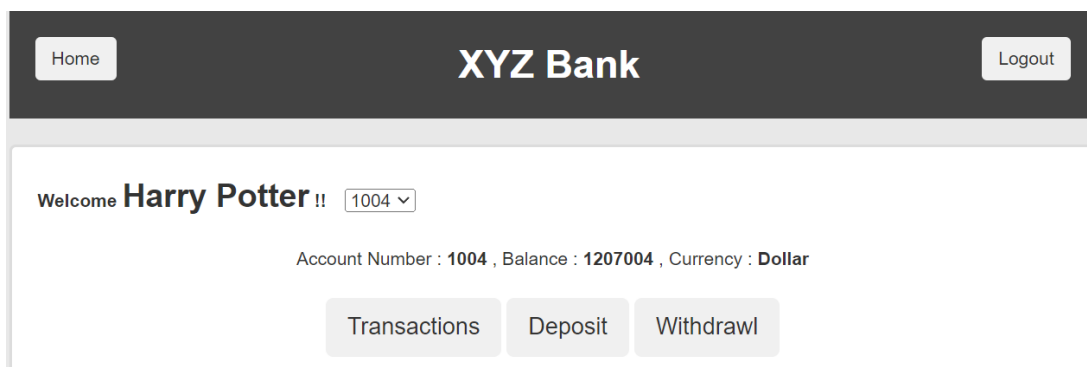


Figure 1.0 (Login panel)

Customer Login:

1. Customer (CU) can login with its **name and password**, following the steps described below:
 - a. CU is pressing Customer Login button
 - b. CU is selecting its name from Your Name list
 - c. **CU is entering password - this section does not have password field: BUG**
 - d. CU is pressing Login button below
 - e. CU is successfully logging in account

2. **CU can select the account with certain currency he wants to use:**
 - a. CU enters account from Login page
 - b. First row of main page of CU account contains a dropdown list with actual accounts CU has
 - c. CU can select any of the accounts available on the list
 - d. Basic details of selected account are listed in second row (below CU name): **Account number, Balance, Currency**



3. **Customer can check all TRANSACTIONS that were done**
 - a. CU enters account from Login page
 - b. Presses Transactions button

- c. List of transactions opens on another page so CU can see all transactions that were done so far
- d. Transactions can be sorted based on date and time.

Home			XYZ Bank			Logout		
Back			11/03/2023 21:30			12/03/2023 14:50		
						Reset		
Mar 11, 2023 9:42:05 PM			1			Debit		
Mar 11, 2023 9:44:02 PM			100000			Credit		
Mar 11, 2023 9:44:04 PM			6000			Credit		
Mar 11, 2023 9:44:08 PM			980000			Credit		

4. Customers can make a DEPOSIT in their account:

- a. CU enters account from Login page
- b. Presses Deposit button
- c. CU has a Field to complete with amount that will be deposited in given account
- d. The field is named: **Amount to be Deposited**
- e. It is mandatory to enter an amount in field of Deposit
- f. Field can be completed ONLY with numbers, NO letters
- g. Maximum number of digits to be entered are: 9 digits
- h. Number to be introduced cannot start with ZERO
- i. Number to be introduced cannot start with MINUS sign
- j. Number to be introduced CANNOT be decimal values (ex: 3.022 is Wrong; 3.000 is OK)
- k. *Deposit Successful* message will appear if CU is entering a correct amount in the field

5. Customers can WITHDRAW money from their account:

- a. CU enters account from Login page
- b. Presses Withdraw button
- c. CU has a Field to complete with the amount that CU wants to Withdraw
- d. The field is named: **Amount to be Withdrawn**
- e. CU enters the amount he wants to Withdraw
- f. The amount should not be higher than **Balance**

Welcome **Hermoine Granger** !! 1002 ▾

Account Number : **1002** , Balance : **8901** , Currency : **Pound**

Transactions

Deposit

Withdraw

Transaction Failed. You can not withdraw amount more than the balance.

Amount to be Withdrawn :

amount

Withdraw

- g. Field can be completed ONLY with numbers, NO letters
- h. Maximum number of digits to be entered are: 9 digits
- i. Number to be introduced cannot start with ZERO
- j. Number to be introduced cannot start with MINUS sign
- k. Number to be introduced cannot be decimal including other digits than ZERO (ex: 3.022 is Wrong; 3.000 is OK)

Welcome **Hermoine Granger** !! 1002 ▾

Account Number : **1002** , Balance : **9001** , Currency : **Pound**

Transactions

Deposit


Withdraw

Transaction successful

Amount to be Withdrawn :

3.066

Withdraw

 Please enter a valid value. The two nearest valid values are 3 and 4.

- l. *Transaction Successful* message will appear if CU is entering a correct amount in the field

The screenshot shows the XYZ Bank account interface. At the top, there is a dark header bar with a 'Home' button on the left, the 'XYZ Bank' logo in the center, and a 'Logout' button on the right. Below the header, the main content area has a light gray background. It starts with a welcome message 'Welcome Hermoine Granger !!' followed by a dropdown menu showing '1002'. Below this, the account details are displayed: 'Account Number : 1002 , Balance : 9001 , Currency : Pound'. There are three buttons: 'Transactions' (light gray), 'Deposit' (light gray), and 'Withdrawl' (blue). The 'Withdrawl' button is highlighted with a blue speech bubble. Below the buttons, a red message 'Transaction successful' is shown. Underneath, it says 'Amount to be Withdrawn :'. There is a text input field with the placeholder 'amount'. At the bottom, there is a 'Withdraw' button.

Home XYZ Bank Logout

Welcome Hermoine Granger !! 1002 ▾

Account Number : 1002 , Balance : 9001 , Currency : Pound

Transactions Deposit Withdrawl

Transaction successful

Amount to be Withdrawn :

amount

Withdraw

6. Customer can *Log out* from account by using *Logout* button

- Log out button will bring back the user to main Home page where user can choose from Customer Login button or Bank Manager Login button
- The login process must take place again all from the start by entering username and password.

This screenshot shows the same XYZ Bank account interface as the first one, but with the 'Logout' button in the top right corner highlighted by a red circle. The 'Home' button is on the left, and the 'XYZ Bank' logo is in the center of the dark header bar. The main content area shows the welcome message 'Welcome Hermoine Granger !!' and the account number '1001' in the dropdown menu. The account details are not visible in this view.

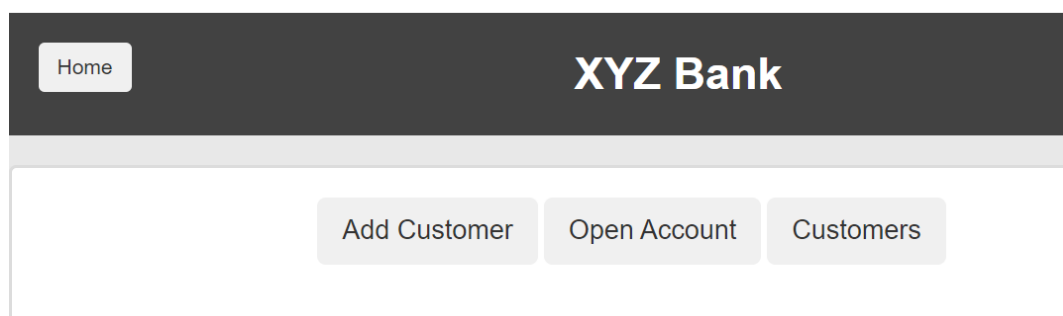
Home XYZ Bank Logout

Welcome Hermoine Granger !! 1001 ▾

Bank Manager (BM) Login:

1. Bank Manager (BM) can login in its account:

- a. BM is pressing **Bank Manager** Login button
- b. BM is selecting is entering its name in User Name field
- c. BM is entering password in Password field -
username and password field with second Login button are still missing
- d. BM is pressing Login button below Password field
- e. BM is successfully logging in account
- f. Main account page contains the following buttons: Add Customer, Open Account, Customers



2. Bank Manager (BM) can add new CU:

- a. All are mandatory fields: First Name, Last Name, Post code
- b. Fields of First Name, Last Name can be completed only with letters:
maximum 30 characters each
- c. Field of Postcode can be competed with letters and numbers: maximum 10
characters
- d. *Add Customer* button is right below the Postcode field

[Home](#)

XYZ Bank

Add Customer

Open Account

Customers

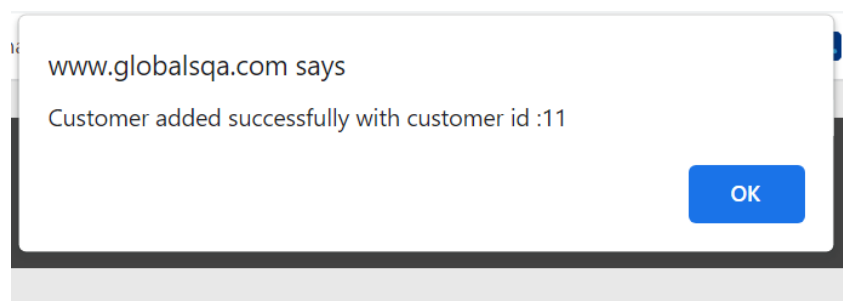
First Name :

Last Name :

Post Code :

Add Customer

- e. If CU was added OK the following message appears in a pop-up window:
Customer added successfully with customer id : ____ (a number is at the end of the message indicating the sequential number of the CU just introduced in the system).



Add Customer

Open Account

Customers

3. BM can open new account to CU:

- BM is logging in its own account
- BM clicks on *Open Account* button
- Two fields are coming up: Customer and Currency
- BM can choose from three different currencies (Dollar, Pound, Rupee)
- Process button is below the fields that must be pressed to proceed

- f. If new account was created OK, the following message appears in a pop-up window: *Account created successfully with account Number :_____* (the number of the opened account appears at the end of the message)

[Home](#)

XYZ Bank

[Add Customer](#) [Open Account](#) [Customers](#)

Customer :

---Customer Name---

Currency :

---Currency---

Process

4. BM can check the list of CUs:

- BM is logging in its own account
- BM clicks on *Customers* button
- A list with all CUs appears with following columns: First Name, Last Name, Post code, Account Number, Delete Customer
- First Name, Last Name, Post Code - all three sortable so by clicking on any of these, that will rearrange the list from A to Z or from Z to A.
- Last column is Delete - at the end of each row there is a Delete button so BM can delete a CU from the system by using that button.
- When a CU is deleted, a message appears as follows: CU with ID ____ is being deleted. *Are you sure you want to proceed?* - Yes / No buttons.
- Right below the Customers button there is a Search Customer field: any character typed in that field will list the CUs with that information: it can be a character from their name, a character from Postcode or a digit from Account Number

[Home](#)

XYZ Bank

[Add Customer](#) [Open Account](#) [Customers](#)

Search Customer

First Name	Last Name	Post Code	Account Number	Delete Customer
Hermoine	Granger	E859AB	1001 1002 1003	Delete
Harry	Potter	E725JB	1004 1005 1006 1020	Delete

5. Administrator can *Log out* from account by using *Logout* button

- a. Log out button will bring back the user to the main Home page where the user can choose from the Customer Login button or Bank Manager Login button.
- b. The login process must take place again all from the start by entering username and password.