General info

Business goals. The application is being developed as a wallet that performs the functions of storing and adding information about the amounts of expenses and income for a certain period of time for selected categories, with the ability to display statistical data in the form of simple tables and charts. The application displays the current rate of the most popular currencies in real time. The user is given the opportunity to register and have access to a personal account by means of authentication.

Environment. The web application is developed for use in browsers of smartphones, tablets, personal computers on current operating systems.

UI/UX is visualized in the layout.

Oli/OX is visualized in the <u>layout</u> .		
Localization. The application is being developed in English and Ukrainian.		
Authentication Page / Authentication Process	Traceability matrix / Critical path	
1. The fields of the authentication page have the function of automatically filling the fields with previously entered data.	All requirements are covered by tests	
Authentication of the user into the system occurs when the required fields are filled in, with a valid data type, a set length, registered in the user system. A user who has not performed authentication before gets to the authentication page when the application starts.	All requirements are covered by tests	
The user can authenticate with a Google account using a special button.	All requirements are covered by tests	
1. Authentication page elements should be positioned according to the <u>layout</u> .	All requirements are covered by tests	
LOGIN button.	All requirements are covered by tests	
 When pressed, performs user authentication to the system. The button is not available for pressing and is highlighted in gray if the required fields are not filled in with a valid data type, set length. 		
 The button is highlighted in green and is available for pressing if the required authentication fields are filled with a valid data type of a set length. When hovering over the mouse or mobile device, the button responds interactively, giving the user a hint about what action can be taken by clicking on it. It also shows the user whether the button is active or not. There is a limit on button clicks. 		
1. On the authentication page, redirects the user to the registration page. 2. The button is highlighted in gray and is always available for pressing. 3. When hovering the mouse or mobile device pointer, the button reacts interactively, giving the user a hint about what action can be taken by clicking on it. It also shows the user whether the button is active or not. 4. There is no restriction on pressing the button for a certain period of time.	All requirements are covered by tests	
Email field	All requirements are covered by tests	
 The field is required. PlaceHolder (email) is displayed in an empty field, which disappears after entering the first characters. Includes Latin, numbers, signs. Does not accept Cyrillic. In the email (username) part, use: Latin, numbers, dot, hyphen (hyphen cannot be placed at the beginning of email), underscore. Use @ and "dot" in the hostname part. The register, regardless of the entered one, is stored in the system as lower. The minimum number of characters is 10 (inclusive), the maximum number of characters is 63 (inclusive). The @ symbol must be preceded by at least 2 characters. The field does not accept "space" The field works with functions (copy, paste, right-click menu, hot keys, clipboard). When hovering over the mouse or mobile device, the field responds interactively, giving the user a hint about what action can be performed by clicking on it. It also shows the user whether the field to click is active or not. 		
Password field	All requirements are covered by tests	

- 2. PlaceHolder (password) is displayed in an empty field, which disappears before the first characters are entered.
- 3. Includes Latin, numbers, symbols, Cyrillic.
- 5. The field is not case sensitive.

1. The field is required.

- 6. The minimum number of characters is 8 (inclusive), the maximum number of characters is 16 (inclusive).
- 7. The default field masks entered characters.
- 8. In disguise mode, a warning is displayed to the user if he uses Caps.
- 9. The field does NOT work with functions (copy, paste, right-click menu, hotkeys, clipboard).
- 10. When hovering the mouse cursor or the manipulator of a mobile device, the field reacts interactively, giving the user a hint about what action can be performed by clicking on it. It also shows the user whether the field to click is active or not.

Password mask button	All requirements are covered by tests
. When the button is pressed, the information entered in the password field becomes available to the user When the button is pressed again, the characters in the password field are masked When hovering the mouse or mobile device pointer, the button reacts interactively, giving the user a hint about what ction can be taken by clicking on it. It also shows the user whether the button is active or not.	covered by tests
/alidation of the authentication page fields is performed at the stage of Client and Server validation.	All requirements are covered by tests
 Field email, password is not filled. The field email, password is filled with invalid data type. The field email, password is filled with an invalid amount of data. Entering the email of an existing user, entering a password not associated with email (server validation). Entering an email that does not exist in the system, entering a password that exists in the system (server validation). Entering an existing password in the system, entering an email not associated with a password (server validation). 	covered by tests
The user should see an error that he understands.	
Registration Page / Registration Process	All : 1
. The fields of the registration page have the function of automatically filling the fields with previously entered data.	All requirements are covered by tests
 User registration in the system occurs when all required fields are filled in, with a valid data type, set length, using an email not registered in the system. 	All requirements are covered by tests
The user can register using a Google account using a special button.	All requirements are covered by tests
. Registration page elements should be positioned according to the <u>layout</u> .	All requirements are covered by tests
REGISTER button	All requirements are covered by tests
2. When hovering the mouse or mobile device pointer, the button reacts interactively, giving the user a hint about what action can be taken by clicking on it. It also shows the user the activity status. 3. The button is not available for pressing and is highlighted in gray if the required fields are not filled in with a valid data type, set length. 4. The button is highlighted in green and is available for clicking if the required authentication fields are filled with a valid data type of a set length. 5. There is no restriction on pressing the button for a certain period of time.	
.OGIN button.	All requirements are covered by tests
 When clicked on the registration page, redirects the user to the authentication page. The button is always available for pressing, highlighted in gray. When hovering the mouse or mobile device pointer, the button reacts interactively, giving the user a hint about what action can be taken by clicking on it. It also shows the user whether the button is active or not. There is no restriction on pressing the button for a certain period of time. 	, , , , , , , , , , , , , , , , , , , ,
Email field	All requirements are covered by tests
 On the registration page, in the email field, you must enter the email of a user not registered in the system. The field is required. PlaceHolder (email) is displayed in an empty field, which disappears after entering the first characters. Includes Latin, numbers, signs. Does not accept Cyrillic. In the email (username) part, use: Latin, numbers, dot, hyphen (hyphen cannot be placed at the beginning of email), underscore. Use @ and "dot" in the hostname part. The register, regardless of the entered one, is stored in the system as lower. The minimum number of characters is 10 (inclusive), the maximum number of characters is 63 (inclusive). The field does not accept "space" 	
12. The field works with functions (copy, paste, call the menu with the right mouse button, hot keys, clipboard). 13. When hovering the mouse cursor or the manipulator of a mobile device, the field reacts interactively, giving the user a nint about what action can be performed by clicking on it. It also shows the user whether the field to click is active or not.	

Password field 1. All requirements are covered by tests 1. The field is required. 2. PlaceHolder (password) is displayed in an empty field, which disappears after entering the first characters. 3. Includes Latin, numbers, symbols, Cyrillic. 5. The field is not case sensitive. 6. The minimum number of characters is 8 (inclusive), the maximum number of characters is 16 (inclusive). 7. The default field masks entered characters. 8. In disguise mode, a warning is displayed to the user if he uses Caps. 9. The field does NOT work with functions (copy, paste, right-click menu, hotkeys, clipboard). 10. When hovering the mouse cursor or the manipulator of a mobile device, the field reacts interactively, giving the user a hint about what action can be performed by clicking on it. It also shows the user whether the field to click is active or not. password field 2. All requirements are covered by tests 1. The values entered in the field must match the values entered in the password 1 field. 2. The field is required. 3. PlaceHolder (password) is displayed in an empty field, which disappears after entering the first characters. 4. Includes Latin, numbers, symbols, Cyrillic. 6. The field is not case sensitive. 7. The minimum number of characters is 8 (inclusive), the maximum number of characters is 16 (inclusive). 8. The default field masks entered characters. 9. In disguise mode, a warning is displayed to the user if he uses Caps. 10. The field does NOT work with functions (copy, paste, right-click menu, hotkeys, clipboard). 11. When hovering the mouse cursor or the manipulator of a mobile device, the field reacts interactively, giving the user a hint about what action can be performed by clicking on it. It also shows the user whether the field to click is active or not. Password mask button All requirements are covered by tests 1. When the button is pressed, the information entered in the two password fields becomes available to the user. 2. When you click the button again, the characters in the password fields are masked. 3. When hovering the mouse or mobile device pointer, the button reacts interactively, giving the user a hint about what action can be taken by clicking on it. It also shows the user whether the button is active or not. Interactive password complexity bar. Requirements not covered by tests: 1-5 1. The value from the password 1 field is taken into account 2. The strip has 4 display modes depending on the entered data: no indication, red, yellow, green. 4. Depending on the entered data, the user receives a message about the complexity of the password. 5. The degree of complexity of the entered data and the dependence on the display is indicated by external standards. Field name All requirements are covered by tests 1. The field is required. 2. The minimum number of characters is 3 (inclusive), the maximum number of characters is 12 (inclusive). 3. Accepts Cyrillic, Latin, numbers. 4. The field is not case sensitive. 5. The field does not accept "spaces" 6. The field works with functions (copy, paste, call the menu with the right mouse button, hot keys, clipboard). 7. When hovering the mouse cursor or the manipulator of a mobile device, the field reacts interactively, giving the user a hint about what action can be performed by clicking on it. It also shows the user whether the field to click is active or not. Validation of the authentication page fields is performed at the stage of Client and Server validation. All requirements are covered by tests. 1. Field email, password 1, password 2, name is empty. 2. Field email, password 1, password 2, name filled with invalid data type. 3. The field email, password 1, password 2, name is filled with an invalid amount of data. 4. The email field is filled with the email of an existing user in the system (server validation) 5. The data in the password 2 field does not match the data in the password 1 field. The user should see an error that he understands. Total requirements: 108. Requirements covered by tests: 103. Coverage: 95% of requirements.