

Blackbox Testing:

Sign up page

Equivalence Classes Table

Equivalence class ID	Description	Valid/Invalid
EC1	Properly formatted email	valid
EC2	Pressing continue when email is not filled	Invalid
EC3	Missing @ in email	Invalid
EC4	Missing domain in email	Invalid
EC5	Missing .(dot) in email	Invalid
EC6	Contains invalid character in email	Invalid
EC7	Reusing emails that already have an account	Invalid
EC8	Pressing continue when username is not filled	Invalid
EC9	If username already taken	Invalid
EC10	Contains invalid characters in username(excluding @, _, etc)	Invalid
EC11	Pressing continue without entering password	Invalid
EC12	Minimum 8 characters	Valid
EC13	Contains at least 3 of the following <ul style="list-style-type: none">• Lower case characters(a-z)• Upper case	Valid


	characters(A-Z) <ul style="list-style-type: none"> Numbers(0-9) Special characters(e.g. !@#\$\$%^&*) 	
EC14	Invalid characters	Invalid

Test Cases table:

Test case id	Email	Username	Password	Valid/invalid	Classes covered
TC1	alicesmith1@gmail.com	alicesmith	LongP@ssword123456	Valid	EC1, EC12, EC13
TC2	alice@smith@gmail.com	alicesmith2	LongP@ssword123456	Invalid	EC6
TC3		alicesmith2	LongP@ssword123456	Invalid	EC2
TC4	alicesmithgmail.com	alicesmith2	LongP@ssword123456	Invalid	EC3
TC5	alicesmith@gmail	alicesmith2	LongP@ssword123456	Invalid	EC4
TC6	alicesmith@gmailcom	alicesmith2	LongP@ssword123456	Invalid	EC5
TC7	alice\$%smith@gmail.com	alicesmith2	LongP@ssword123456	Invalid	EC6
TC8	alicesmith1@gmail.com	alicesmith2	LongP@ssword123456	Invalid	EC7
TC9	alicesmith2@gmail.com		LongP@ssword123456	Invalid	EC8
TC10	alicesmith3@gmail.com	alicesmith2	LongP@ssword123456	Invalid	EC9
TC11	alicesmith4@gm	alice@smith	LongP@ssw	Invalid	EC10

	ail.com		ord123456		
TC12	johnsmith@gmail.com	johnsmith12	Password@1234	Valid	EC1,EC12,EC13
TC13	alicesmith5@gmail.com	alicesmith3		Invalid	EC11
TC14	alicesmith5@gmail.com	alicesmith3	Pass12	Invalid	EC12
TC15	alicesmith5@gmail.com	alicesmith3	PASSWORD12	Invalid	EC13
TC16	alicesmith5@gmail.com	alicesmith3	password123	Invalid	EC13
TC17	alicesmith5@gmail.com	alicesmith3	12345@@@	Invalid	EC13
TC18	alicesmith5@gmail.com	alicesmith3	Password	Invalid	EC13
TC19	alicesmith5@gmail.com	alicesmith5	Ωpass@124	Invalid	EC14
TC20	whillimsmith@gmail.com	willsmith123	Pass@12\$*	Valid	EC1,EC12,EC13

TC23	alicesmith@gmail.com	@341%%%	LongP@ssword123456	Invalid	EC10
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Welcome

Sign Up to dev-bczx7clqqw28hxlq to continue to portfolio-manager-g25.

The username has invalid characters

Email address*

alicesmith@gmail.com

Username*

@341%%%

Password*

.....

👁

Your password must contain:

- ✓ At least 8 characters
- ✓ At least 3 of the following:
 - ✓ Lower case letters (a-z)
 - ✓ Upper case letters (A-Z)
 - ✓ Numbers (0-9)
 - ✓ Special characters (e.g. !@#\$%^&*)

TC24	alicesmith@gmail.com		LongP@ssword123456	Invalid	EC8
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Sign Up to dev-bczx7clqqw28hxlq to continue to portfolio-manager-g25.

The username has invalid characters

Email address*

alicesmith@gmail.com

Username*

Password*

.....

! Please fill out this field.

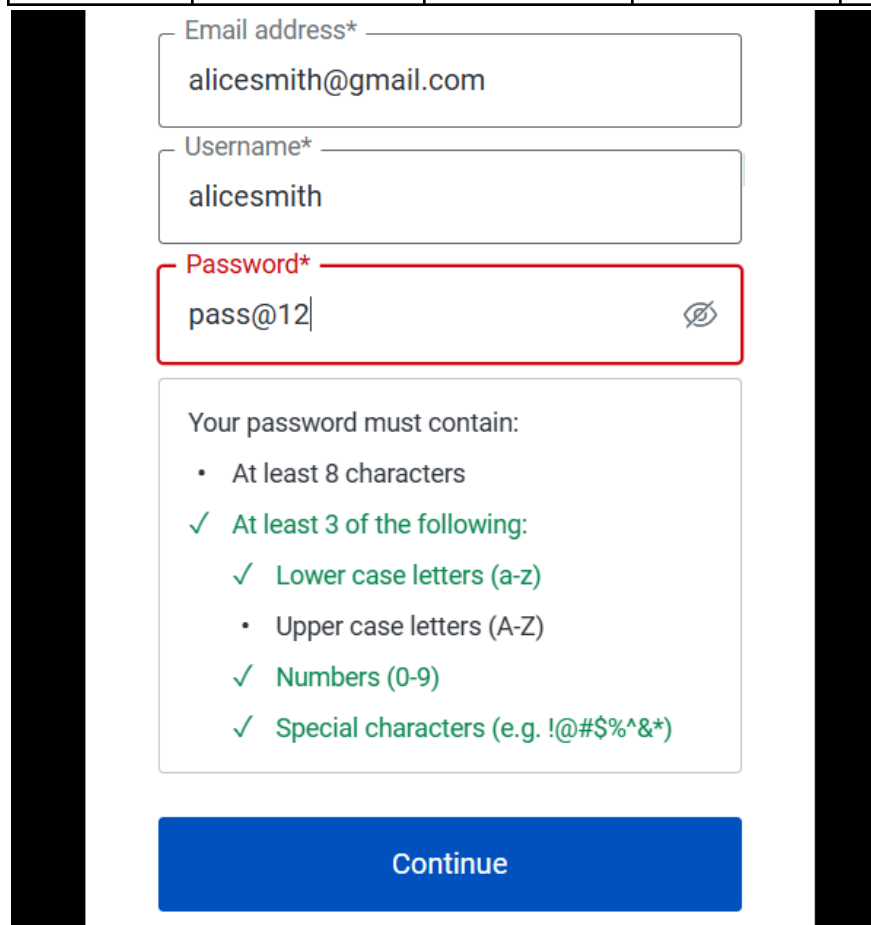
👁

Your password must contain:

- ✓ At least 8 characters
- ✓ At least 3 of the following:
 - ✓ Lower case letters (a-z)
 - ✓ Upper case letters (A-Z)
 - ✓ Numbers (0-9)
 - ✓ Special characters (e.g. !@#\$%^&*)

Continue

TC25	alicesmith@gmail.com	alicesmith	pass@12	Invalid	EC13
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The screenshot shows a login form with three input fields: 'Email address*', 'Username*', and 'Password*'. The 'Email address*' field contains 'alicesmith@gmail.com'. The 'Username*' field contains 'alicesmith'. The 'Password*' field contains 'pass@12' and is highlighted with a red border. Below the password field, there is a list of password requirements: 'Your password must contain:' followed by a bulleted list: 'At least 8 characters', 'At least 3 of the following:' (with a green checkmark), 'Lower case letters (a-z)' (with a green checkmark), 'Upper case letters (A-Z)', 'Numbers (0-9)' (with a green checkmark), and 'Special characters (e.g. !@#\$%^&*)' (with a green checkmark). At the bottom of the form is a blue 'Continue' button.

Login page

Equivalence classes table


Equivalence class id	Description	Valid/Invalid
EC1	Pressing continue without writing email/username	Invalid
EC2	Entering email that is not signed up	Invalid
EC3	Entering email in invalid format	Invalid

EC4	Pressing continue without entering the password	Invalid
EC5	Entering incorrect password	Invalid
EC6	Entering the email and correct password	Valid

Test Case Table:

Test case id	email / username	Password	Valid/Invalid	Classes Covered
TC1		Longpass@123	Invalid	EC1
TC2	abcd@gmail.com	Longpass@123	Invalid	EC2
TC3	alicesmith2@gmail.com	Longpass@123	Valid	EC6
TC4	alicesmith2	Longpass@123	Valid	EC6
TC5	alice@smith@gmail.com	Longpass@123	Invalid	EC3
TC6	alicesmith		Invalid	EC4
TC7	alicesmith@gmail.com		Invalid	EC4
TC8	alicesmith1	pass12	Invalid	EC5
TC9	alicesmith@gmail.com	pass123	Invalid	EC5
TC10	alicesmith@gmail.com	Longpass@123	Valid	EC6
TC11	alicesmith	Longpass@123	valid	EC6

TC12		Longpass@123	Invalid	EC1
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Welcome

Log in to dev-bczx7clqqw28hxlq to continue to portfolio-manager-g25.

Username or Email address*

Password*


Please fill out this field.

[Forgot password?](#)

Continue

Don't have an account? [Sign up](#)

TC13	alice@smith@gmail.com	Longpass@123	Invalid	EC3
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Welcome

Log in to dev-bczx7clqqw28hxlq to continue to portfolio-manager-g25.

Username or Email address*

alice@smith@gmail.com

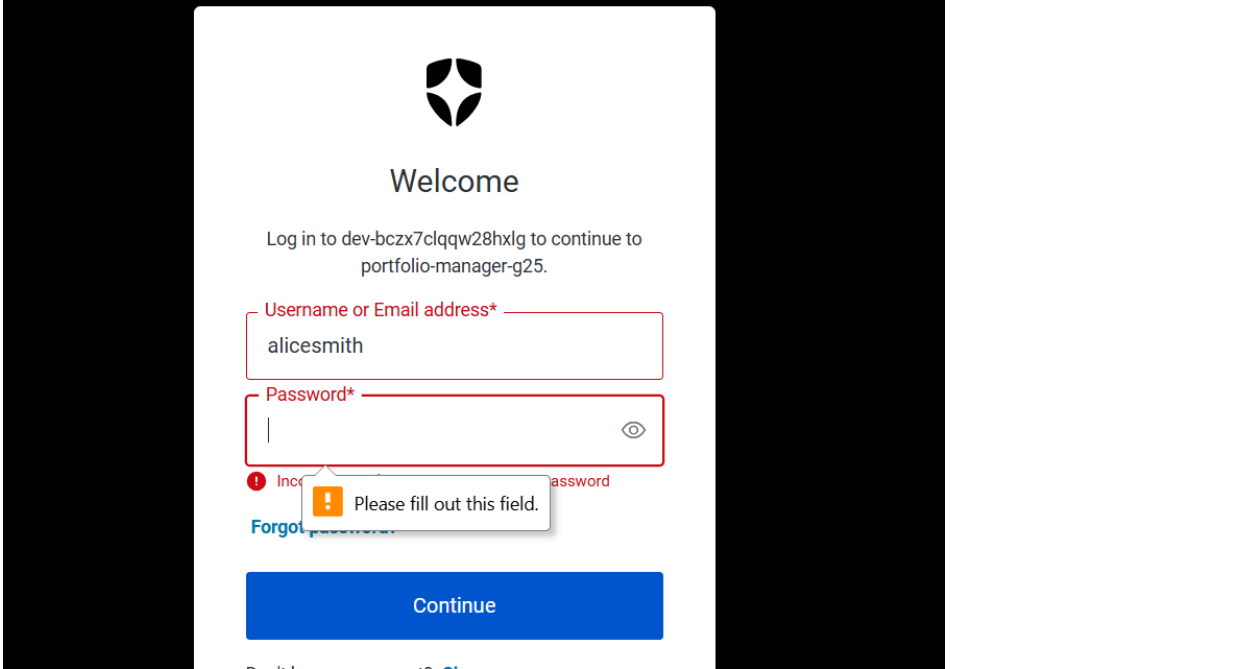
Password*

Incorrect email address, username, or password

[Forgot password?](#)

Continue

Don't have an account? [Sign up](#)

TC14	alicesmith		Invalid	EC4
				

Search Stocks

The input field will display results only if there is a match with the entered characters. If no match is found, the output will show "No stocks found." Therefore, there are no invalid tests that could result in errors. But still, we can define the equivalence class as:

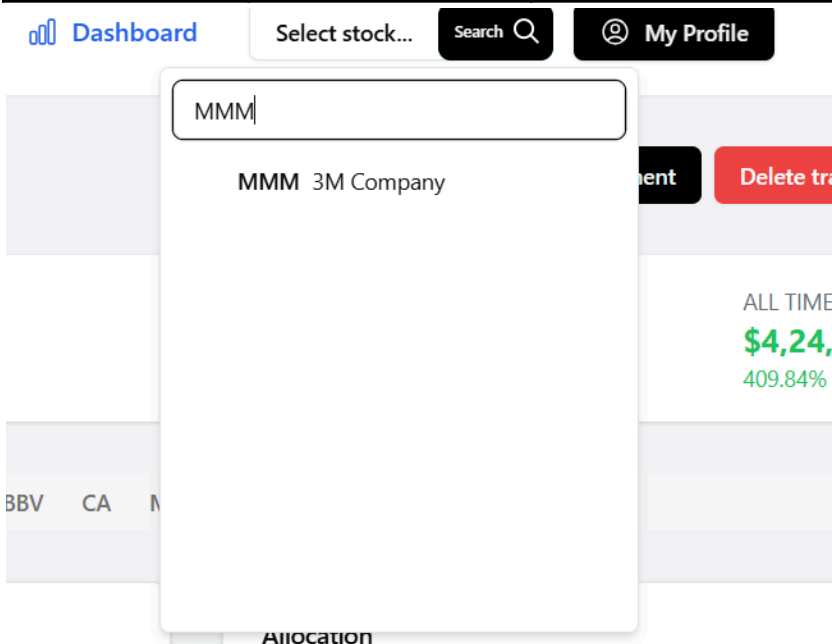
Equivalence class table:

Equivalence class ID	Description	Valid/Invalid
EC1	The input values match some stock name	Valid
EC2	The input values don't match some stock name	Invalid

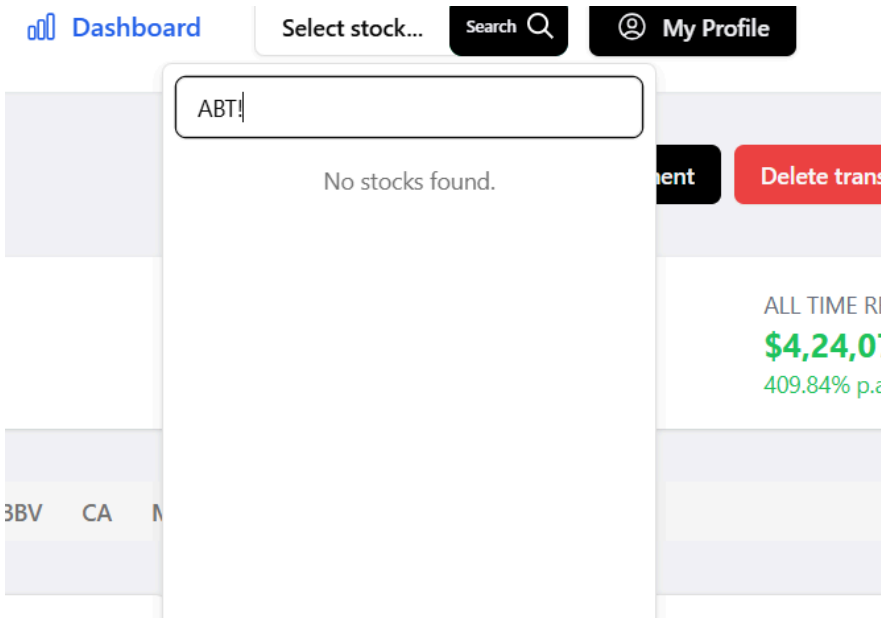
Test Case Table:

Test Case ID	Input	Expected Output	Equivalence Class
TC1	“MMM”	Selects the stock for 3M Company	EC1
TC2	“3M”	Selects the stock for 3M Company	EC1
TC3	“googl”	Selects the stock for Alphabet Inc Class A	EC1
TC4	“ABT!”	No stocks found	EC2
TC5	“A\$T”	No stocks found	EC2
TC6	“aapl123”	No stocks found	EC2
TC7	“AMD_1”	No stocks found	EC2
TC8	“AMD”	Selects the stock for Advanced Micro Devices Inc	EC1

TC9	MMM	Selects the stock for 3M Company	EC1
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TC10	ABT!	Stock not found	EC2
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Add Investment

Equivalence class table:

Equivalence Class ID	Description	Valid/Invalid
EC1	“Enter Stock ID” is left empty.	Invalid
EC2	Non-existing stock is searched	Invalid
EC3	Selecting valid stock	Valid
EC4	Positive integer is entered in Quantity	Valid
EC5	Negative value is entered in Quantity	Invalid
EC6	Quantity is left empty/0 is entered	Invalid

EC7	Decimal value is entered in Quantity	Invalid
EC8	Any positive number is entered in Purchase Price	Valid
EC9	Purchase price is left empty	Invalid
EC10	Negative value or 0 is entered in Purchase price	Invalid
EC11	Transaction date is left empty	Invalid
EC12	Date ahead of the current one is entered	Invalid
EC13	Current or past date is entered	Valid

Test Case Table:

Test Case ID	Input fields	Expected Output	Equivalence Class ID(s)
TC1	Stock ID: "" Quantity: 10 Purchase Price: 100 Transaction Date: 01-12-2024	Error: "Stock ID cannot be empty."	EC1
TC2	Stock ID: "XYZ123" Quantity: 10 Purchase Price: 100 Transaction Date: 01-12-2024	Error: "Stock not found."	EC2
TC3	Stock ID: "AAPL" Quantity: 10 Purchase Price: 100 Transaction Date: 01-12-2024	Success: "Investment added successfully."	EC3, EC4, EC8. EC13
TC5	Stock ID: "AAPL" Quantity: "" Purchase Price: 100 Transaction	Error: "Quantity cannot be empty."	EC6

	Date:01-12-2024		
TC6	Stock ID: "AAPL" Quantity: 10.5 Purchase Price: 100 Transaction Date: 01-12-2024	Error: "Quantity must be a positive integer."	EC7
TC7	Stock ID: "AAPL" Quantity: 10 Purchase Price: "" Transaction Date: 01-12-2024	Error: "Purchase price cannot be empty."	EC9
TC8	Stock ID: "AAPL" Quantity: 10 Purchase Price: 100 Transaction Date: ""	Error: "Transaction date cannot be empty."	EC11
TC9	Stock ID: "AAPL" Quantity: 10 Purchase Price: 100 Transaction Date: 01-01-2026	Error: "Transaction date cannot be in the future."	EC12
TC10	Stock ID: "AAPL" Quantity: 10 Purchase Price: 0 Transaction Date: 01-12-2024	Error: "Purchase price must be a positive number"	EC10
TC11	Stock ID: "AAPL" Quantity: 10 Purchase Price: -100 Transaction Date: 01-12-2024	Error: "Purchase price must be a positive number"	EC4
TC12	Stock ID: "AAPL" Quantity: 0 Purchase Price: 100 Transaction Date: 01-12-2024	Error: "Quantity must be a positive integer."	EC6
TC13	Stock ID: "GOOG" Quantity: 1000 Purchase Price: 500	Success: "Investment added successfully."	EC3, EC4, EC8, EC13

	Transaction Date: 01-01-2022		
TC14	Stock ID: "GOOG" Quantity: 10 Purchase Price: 5000 Transaction Date: 01-01-2022	Success: "Investment added successfully."	EC3, EC4, EC8, EC13

TC15	Stock ID: "" Quantity: 10 Purchase Price: 100 Transaction Date: 01-12-2024	Error: "Stock ID cannot be empty."	EC1
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Add New Investment(s)

ⓘ Requested Stock does not exist in the database.

Investment 1

Enter Stock ID

Select stock...

Quantity

10

Purchase Price (in US\$)

100

Total Value (in US\$)

1000

Transaction Date

01-12-2024

+ New Investment

Submit Investments

TC16	Stock ID: "XYZ123" Quantity: 10 Purchase Price: 100 Transaction Date: 01-12-2024	Error: "Stock not found."	EC2
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Add New Investment(s)

Investment 1

Enter Stock ID

Select stock...

XYZ

No stocks found.

Quantity

10

Purchase Price (in US\$)

100

Total Value (in US\$)

1000

Transaction Date

01-12-2024

+ New Investment

Submit Investments

TC17	Stock ID: "AAPL" Quantity: 1.2 Purchase Price: 200 Transaction Date: 01-12-2024	Error: "Quantity must be an integer."	EC7
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Add New Investment(s)



Investment 1

Enter Stock ID

Apple Inc. (AAPL)



Quantity

1.2



Please enter a valid value. The two nearest valid values are 1 and 2.

Purchase Price (in US\$)

100

Total Value (in US\$)

120

Transaction Date

01-12-2024



+ New Investment

Submit Investments