UC 7 - Financial Insight - Input Values Table

Input Element	Type	Value Specification	Valid	Invalid	Exceptional Cases
Account Activity Period	Time (Days) (int)	Minimum one week of transactions	Activity for one week	Less than one week of data	Excessive data causing performance lag
Trend Analysis Frequency	String	Either "daily", "weekly", or "monthly"	“daily", "weekly", "monthly"	Invalid values	None
User Confirmation	Boolean	Confirmation of request to view trends (True/False)	True (User confirms)	False (User cancels request)	None

Test Case Scenarios

Test Case	Account Activity Period	Trend Analysis Frequency	User confirmation	Expected Outcome
1	Valid	Valid	True	Trends displayed successfully
2	Valid	Valid	False	Transaction canceled
3	Valid	Invalid	True	Error: Invalid frequency
4	Valid	Invalid	False	Transaction canceled
5	Invalid	Valid	True	Error: Insufficient data

6	Invalid	Valid	False	Transaction canceled
7	Invalid	Invalid	True	Error: Invalid frequency
8	Invalid	Invalid	False	Transaction canceled
9	Exceptional	Valid	True	Error: Data processing issue
10	Exceptional	Valid	False	Transaction canceled
11	Exceptional	Invalid	True	Error: Invalid frequency
12	Exceptional	Invalid	False	Transaction canceled

Narrowed-Down Test Cases

Test Case	Account Activity Period	Trend Analysis Frequency	User confirmation	Expected Outcome
1	Valid	Valid	True	Trends displayed successfully
2	Valid	Valid	False	Transaction canceled
5	Invalid	Valid	True	Error: Insufficient data
3	Valid	Invalid	True	Error: Invalid frequency
9	Exceptional	Valid	True	Error: Data processing issue

Concrete Values for Test Cases

Test Case	Account Activity Period	Trend Analysis Frequency	User confirmation	Expected Outcome
1	14 days	“weekly”	True	Trends displayed successfully
2	14 days	“weekly”	False	Transaction canceled
5	3 days	“weekly”	True	Error: Insufficient Data
3	3 days	“hourly”	True	Error: Invalid frequency
9	30 days	“weekly”	True	Error: Data processing issue

UC 9 - Set Financial Goals - Input Values Table

Input Element	Type	Value Specification	Valid	Invalid	Exceptional Cases
Financial Goal Amount	Float	Positive number	Any positive number (e.g., 100.00)	Negative number, zero	Exceeds predefined financial goal limit
Goal Time Frame	String	Either "short-term" or "long-term"	"short-term" or "long-term"	Other values (e.g., empty string)	None
Confirmation	Boolean	Confirmation of submission (True/False)	True (Submit button clicked)	False (User cancels submission)	None

Test Case Scenarios

Test Case	Financial Goal Amount	Goal Timeframe	User confirmation	Expected Outcome
1	Valid	Valid	True	Financial goal successfully set
2	Valid	Valid	False	Transaction canceled
3	Valid	Invalid	True	Error: Invalid goal time frame
4	Valid	Invalid	False	Transaction canceled
5	Invalid	Valid	True	Error: Invalid financial goal amount
6	Invalid	Valid	False	Transaction canceled
7	Invalid	Invalid	True	Error: Invalid

				financial goal amount
8	Invalid	Invalid	False	Transaction canceled
9	Exceptional	Valid	True	Error: Financial goal exceeds limit
10	Exceptional	Valid	False	Transaction canceled
11	Exceptional	Invalid	True	Error: Invalid goal timeframe
12	Exceptional	Invalid	False	Transaction canceled

Narrowed Down Test Cases

Test Case	Financial Goal Amount	Goal Timeframe	User confirmation	Expected Outcome
1	Valid	Valid	True	Financial goal set successfully
2	Valid	Valid	False	Transaction canceled
5	Invalid	Valid	True	Error: Invalid financial goal amount
9	Exceptional	Valid	True	Error: Financial goal exceeds limit
3	Valid	Invalid	True	Error: Invalid goal timeframe

Concrete Test Cases

Test Case	Financial Goal Amount	Goal Timeframe	User confirmation	Expected Outcome
1	500.00	“short-term”	True	Financial goal set successfully
2	500.00	“short-term”	False	Transaction canceled
5	-100.00	“short-term”	True	Error: Invalid financial goal amount
9	100000000	“long-term”	True	Error: Financial goal exceeds limit
3	500.00	"weekly"	True	Error: Invalid goal timeframe

Environment Information

1. Java
2. IntelliJ Idea Community Edition 2023.2/VS Code works too
3. JUnit 5
4. I followed the same procedure for the unit testing and class implementation in class