

# Stock Market Analysis Pipeline

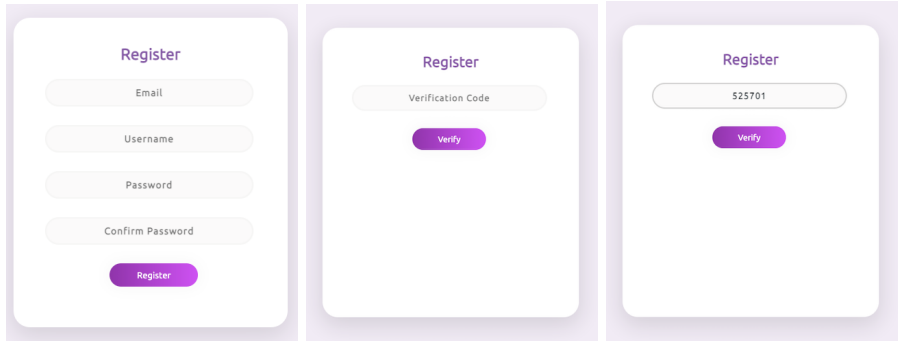
Use case:

1. User Signup and Sign in
  2. Reddit Trending Stocks and Sentiments
  3. Current Stock Price
  4. Historical Stock Analysis Trend
  5. Stock Forecast Trend
  6. Chat bot options
- 

## Use Case I: User Signup and Sign in

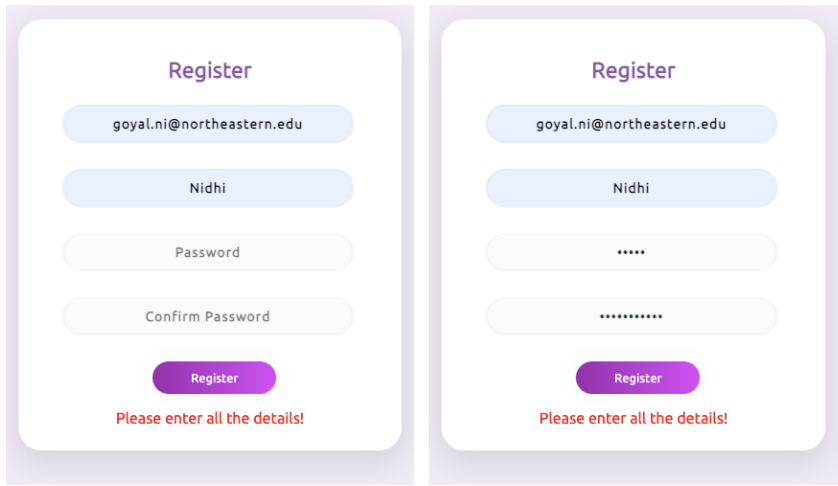
### Test Case 1

Test Case Id	01
Option chosen	User Signup Authentication
Test title	Register Random String Input
Test design date	04/25/2021
Test execution date	04/29/2021
Test data	<ul style="list-style-type: none"><li>• Email</li><li>• Username</li><li>• Password</li><li>• Confirm password</li></ul> After filling above information, press enter. <ul style="list-style-type: none"><li>• This will navigate to the Register Verification page and you will receive verification code in your email.</li><li>• After entering verification code, press verify.</li></ul>
Expected Result	After successful signup, it will land on the Home page.

Actual Result	
Status (Pass/ Fail)	<b>Pass</b>

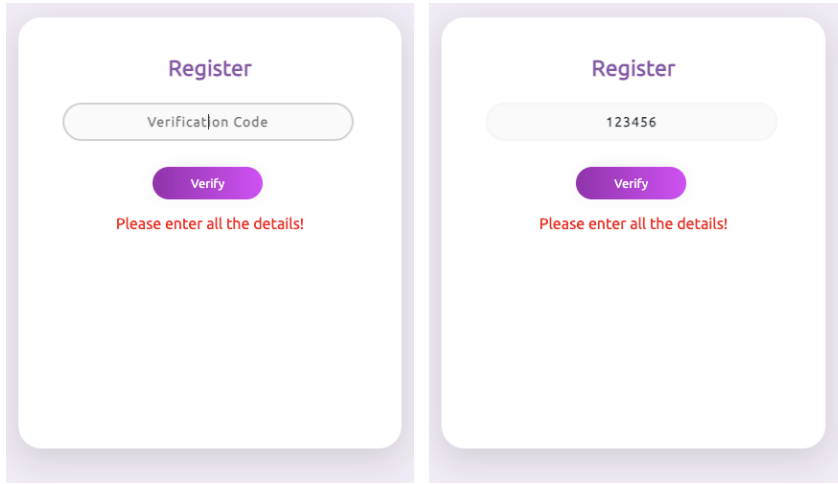
## Test Case 2

Test Case Id	<b>02</b>
Option chosen	User Signup Authentication
Test title	Register Random String Input
Test design date	04/25/2021
Test execution date	04/29/2021
Test data	<ul style="list-style-type: none"> <li>• Email</li> <li>• Username</li> <li>• Password</li> <li>• Confirm password</li> </ul> <p>In the case of less information or not same confirm password</p>
Expected Result	Error: Please enter all the details!

Actual Result	
Status (Pass/ Fail)	<b>Pass</b>

## Test Case 3

Test Case Id	<b>03</b>
Option chosen	User Signup Verification Authentication
Test title	Register Random String Input
Test design date	04/25/2021
Test execution date	04/29/2021
Test data	Verification code  In the case of no code or wrong entry
Expected Result	Error: Please enter all the details!

Actual Result	
Status (Pass/ Fail)	<b>Pass</b>

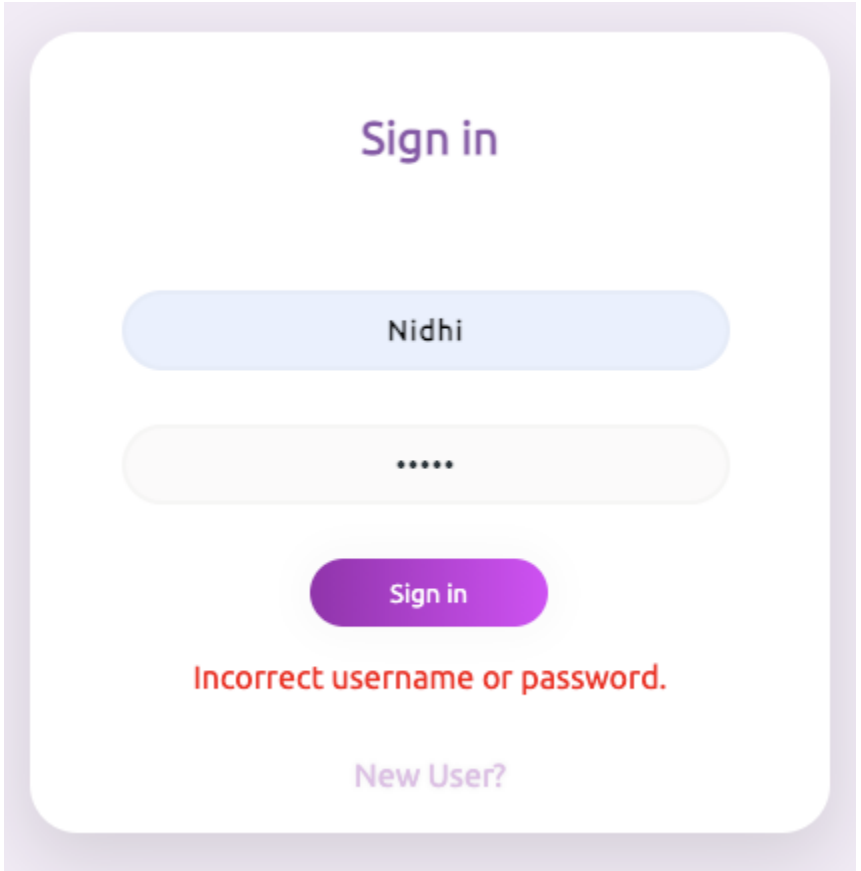
## Test Case 4

Test Case Id	<b>04</b>
Option chosen	Authentication
Test title	Sign In
Test design date	04/25/2021
Test execution date	04/29/2021
Test data	<ul style="list-style-type: none"> <li>• Username</li> <li>• Password</li> </ul> <p>Any random username which is a part of our user pool in Amazon Cognito</p>
Expected Result	After successful sign in, it will land on the Home page.

Actual Result	
Status (Pass/ Fail)	<b>Pass</b>

## Test Case 5

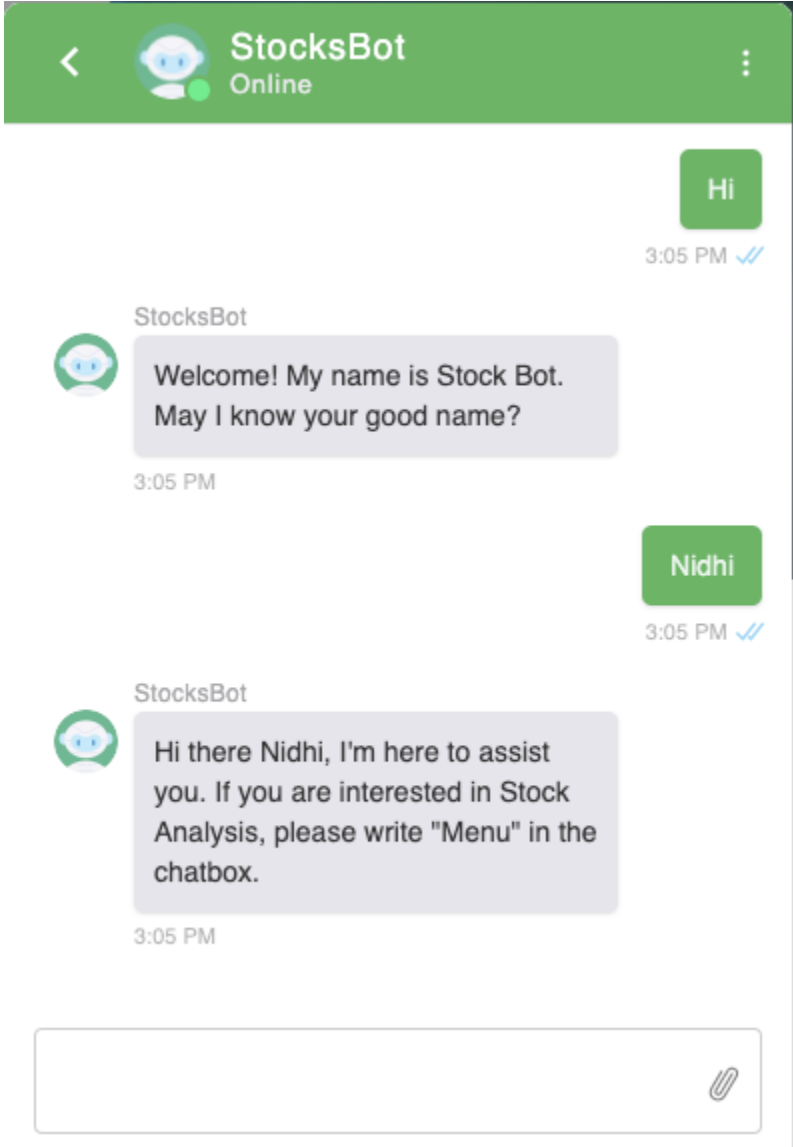
Test Case Id	<b>05</b>
Option chosen	Authentication
Test title	Sign In
Test design date	04/25/2021
Test execution date	04/29/2021
Test data	<ul style="list-style-type: none"> <li>• Username</li> <li>• Password</li> </ul> <p>Any wrong username or password which is not a part of our</p>

	user pool in Amazon Cognito
Expected Result	Error: Incorrect username or password.
Actual Result	 <p>The screenshot shows a sign-in interface with a light purple background. At the top, it says 'Sign in' in purple. Below that is a light blue rounded rectangle containing the text 'Nidhi'. Underneath is a light yellow rounded rectangle containing six dots '.....'. Below that is a purple rounded rectangle with the text 'Sign in' in white. At the bottom, it says 'Incorrect username or password.' in red, and 'New User?' in purple.</p>
Status (Pass/ Fail)	<b>Pass</b>

## Use Case II: Welcome chat bot

### Test Case 6

Test Case Id	<b>06</b>
Option chosen	Welcome
Test title	Greeting
Test design date	04/20/2020

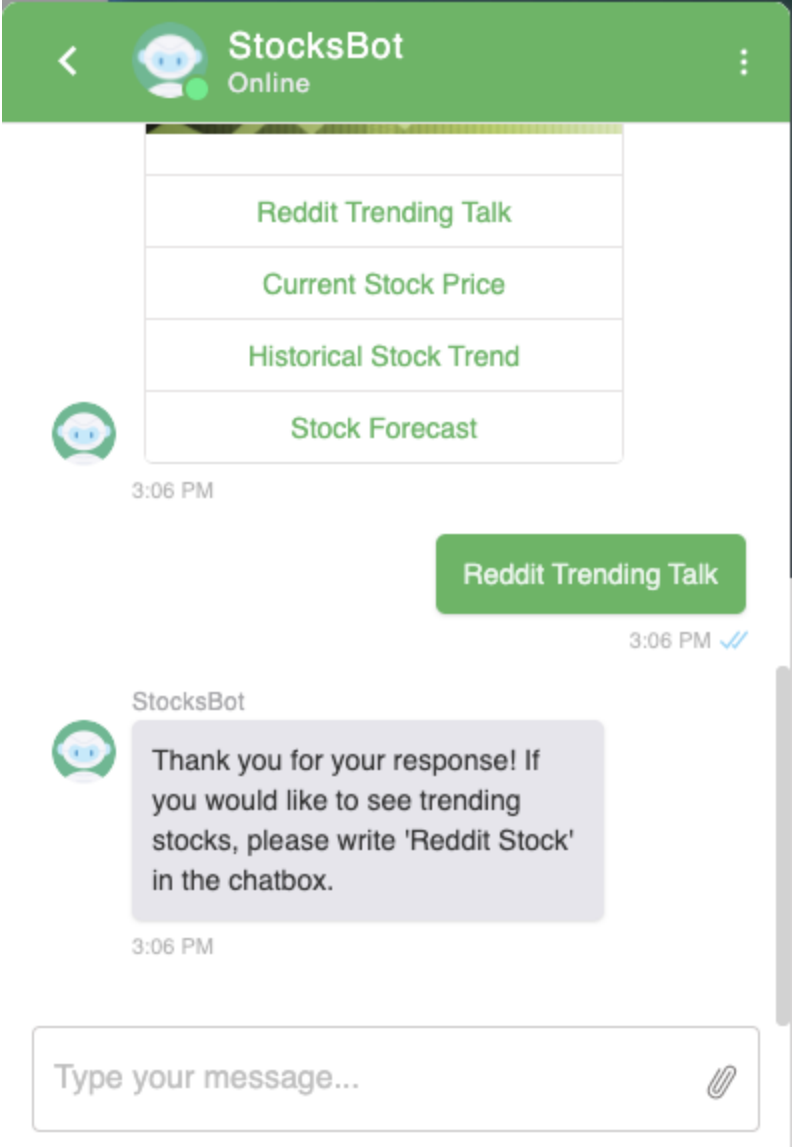
Test execution date	04/29/2021
Test data	Either enter greeting message "Hi" in the chat box and enter your name:
Expected Result	<p>Welcome! My name is Stock Bot. May I know your good name?</p> <p>Hi there nidhi, I'm here to assist you. If you are interested in Stock Analysis, please write "Menu" in the chat box.</p>
Actual Result	
Status (Pass/ Fail)	Pass

## Use Case III: Reddit Trending Stocks and Sentiments

### Test Case 7

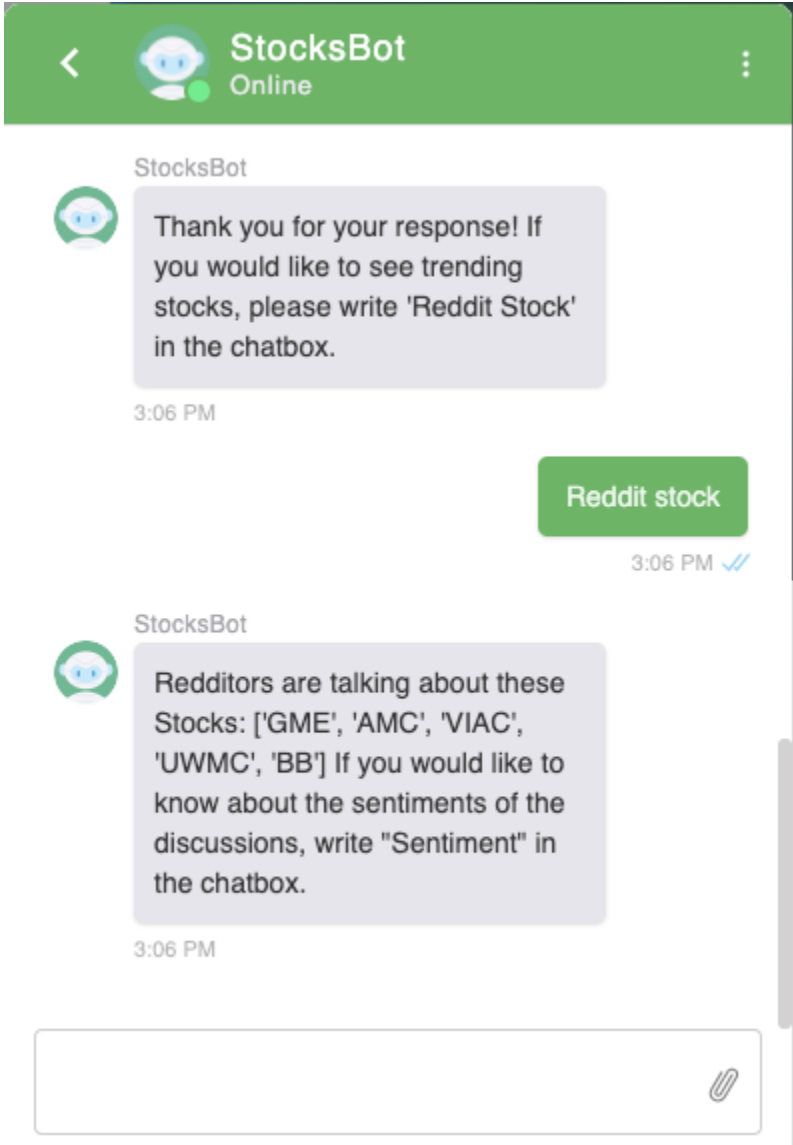
Test Case Id	<b>07</b>
Option chosen	Reddit Trending Talk
Test title	Top Trending Stocks
Test design date	04/20/2020
Test execution date	04/29/2021
Test data	Either enter "Reddit Trending Talk" in menu or write "Reddit Trending Talk" in the chatbox
Expected Result	Thank you for your response! If you would like to see trending stocks, please write 'Reddit Stock' in the chatbox.



Actual Result	
Status (Pass/ Fail)	<b>Pass</b>

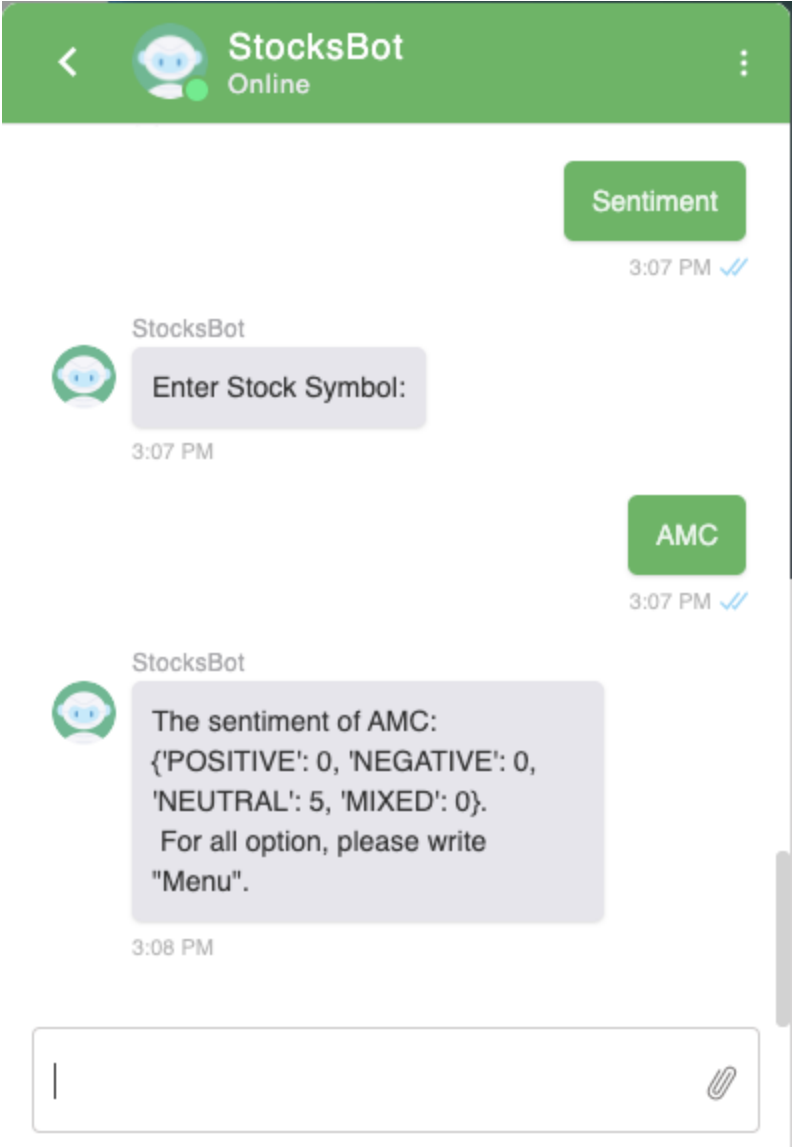
## Test Case 8

Test Case Id	<b>08</b>
Option chosen	Reddit Stock
Test title	Top Trending Stocks

Test design date	04/20/2020
Test execution date	04/29/2021
Test data	Write "Reddit Stock" in the chatbox
Expected Result	Redditors are talking about these Stocks: ['GME', 'AMC', 'VIAC', 'UWMC', 'BB'] If you would like to know about the sentiments of the discussions, write "Sentiment" in the chat box.
Actual Result	 <p>The screenshot shows a chat window titled 'StocksBot Online'. The first message from StocksBot says: 'Thank you for your response! If you would like to see trending stocks, please write 'Reddit Stock' in the chatbox.' This is followed by a user input 'Reddit stock' which is confirmed with a checkmark. The second message from StocksBot says: 'Redditors are talking about these Stocks: ['GME', 'AMC', 'VIAC', 'UWMC', 'BB'] If you would like to know about the sentiments of the discussions, write "Sentiment" in the chatbox.'</p>
Status (Pass/ Fail)	<b>Pass</b>

## Test Case 9

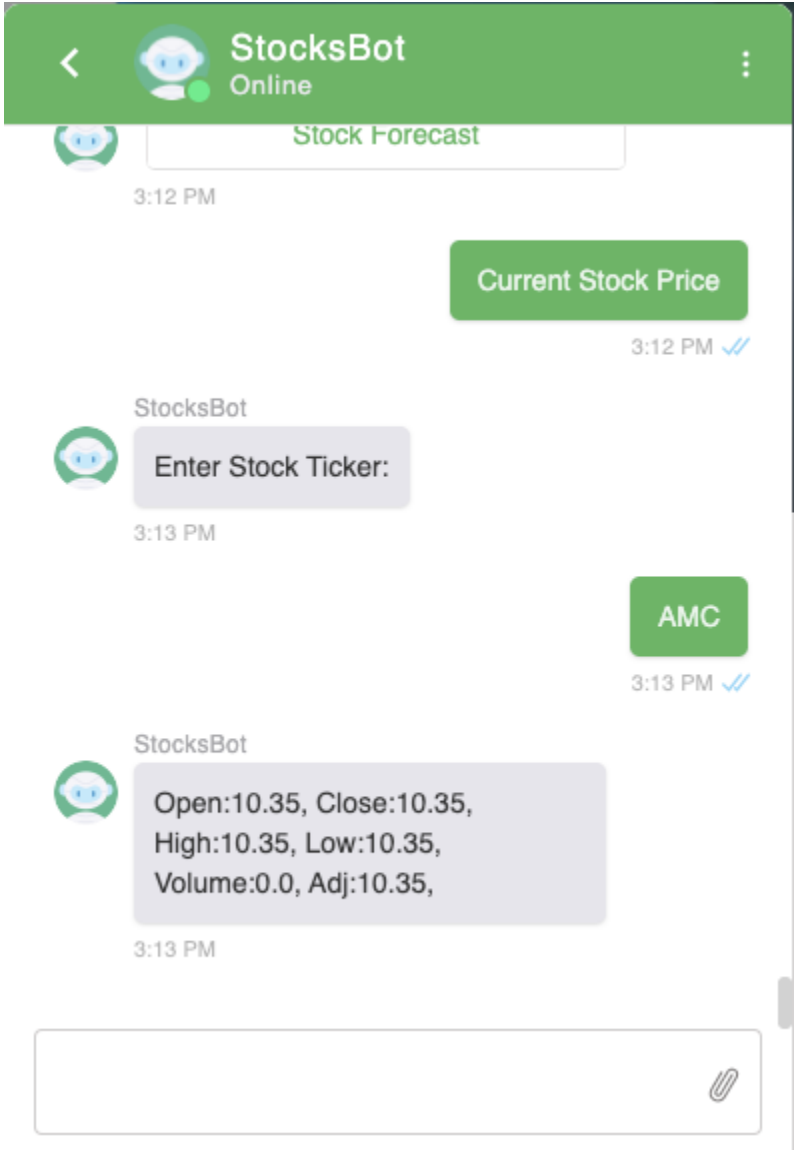
Test Case Id	<b>09</b>
Option chosen	Reddit Sentiment
Test title	Sentiments of the current reddit trending stock for stock Input
Test design date	04/20/2021
Test execution date	04/29/2021
Test data	Write "Sentiment" in the chat box  Then, enter stock symbol = AMC
Expected Result	The sentiment of AMC: {'POSITIVE': 0, 'NEGATIVE': 0, 'NEUTRAL': 5, 'MIXED': 0}. For all options, please write "Menu".

Actual Result	
Status (Pass/ Fail)	<b>Pass</b>

## Use Case IV: Current Stock Price

### Test Case 10

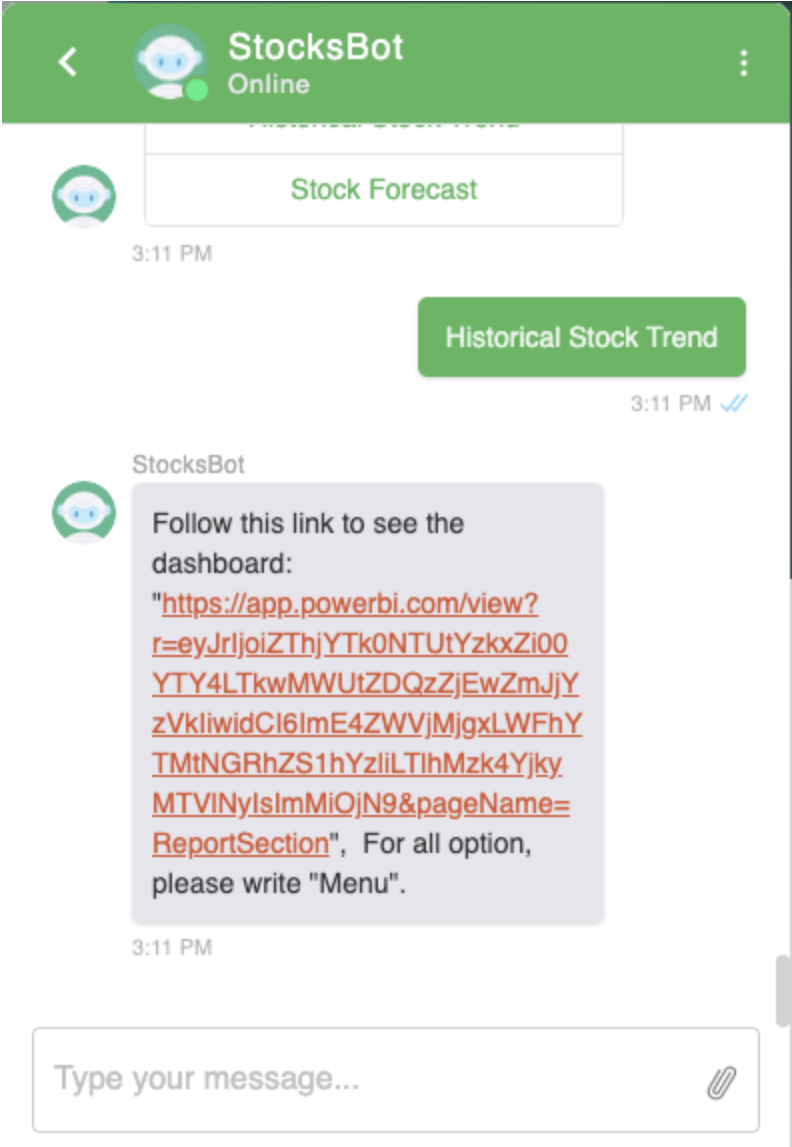
Test Case Id	<b>10</b>
Option chosen	Current Stock Price

Test title	Real time stock via Yahoo Finance for any stock ticker.
Test design date	04/21/2021
Test execution date	04/29/2020
Test data	Write "Current Stock Price" in the chat box  Then, Enter Stock Ticker: AMC
Expected Result	Open:10.17, Close:10.21, High:10.21, Low:10.17, Volume:0.0, Adj:10.21,
Actual Result	 <p>The screenshot shows a chat conversation with 'StocksBot Online'. The chat history includes:</p> <ul style="list-style-type: none"> <li>A green bubble from StocksBot with a 'Stock Forecast' button (3:12 PM).</li> <li>A green bubble from the user with the text 'Current Stock Price' (3:12 PM, read).</li> <li>A grey bubble from StocksBot asking 'Enter Stock Ticker:' (3:13 PM).</li> <li>A green bubble from the user with the text 'AMC' (3:13 PM, read).</li> <li>A grey bubble from StocksBot displaying the following stock data: 'Open:10.35, Close:10.35, High:10.35, Low:10.35, Volume:0.0, Adj:10.35,' (3:13 PM).</li> </ul> <p>At the bottom, there is an empty input field with a paperclip icon for attachments.</p>
Status (Pass/ Fail)	<b>Pass</b>

# Use Case V: Historical Stock Analysis Trend

## Test Case 11

Test Case Id	11
Option chosen	Historical Stock Trend
Test title	Stock Analysis Dashboard
Test design date	04/23/2021
Test execution date	04/29/2021
Test data	Write "Historical Stock Trend" in the chat box
Expected Result	Follow this link to see the dashboard: <a href="https://app.powerbi.com/view?r=eyJrIjoizThjYTk0NTUtYzkyZi00YTY4LTkwMWUtZDQzZjEwZmJjYzVkIiwidCI6ImE4ZWVjMjgxLWFhYTMTNGRhZS1hYzliLTlhMzk4YjkyMTVINyIsImMiOiN9&amp;pageName=ReportSection">"https://app.powerbi.com/view?r=eyJrIjoizThjYTk0NTUtYzkyZi00YTY4LTkwMWUtZDQzZjEwZmJjYzVkIiwidCI6ImE4ZWVjMjgxLWFhYTMTNGRhZS1hYzliLTlhMzk4YjkyMTVINyIsImMiOiN9&amp;pageName=ReportSection"</a> , For all option, please write "Menu".

Actual Result	
Status (Pass/ Fail)	<b>Pass</b>

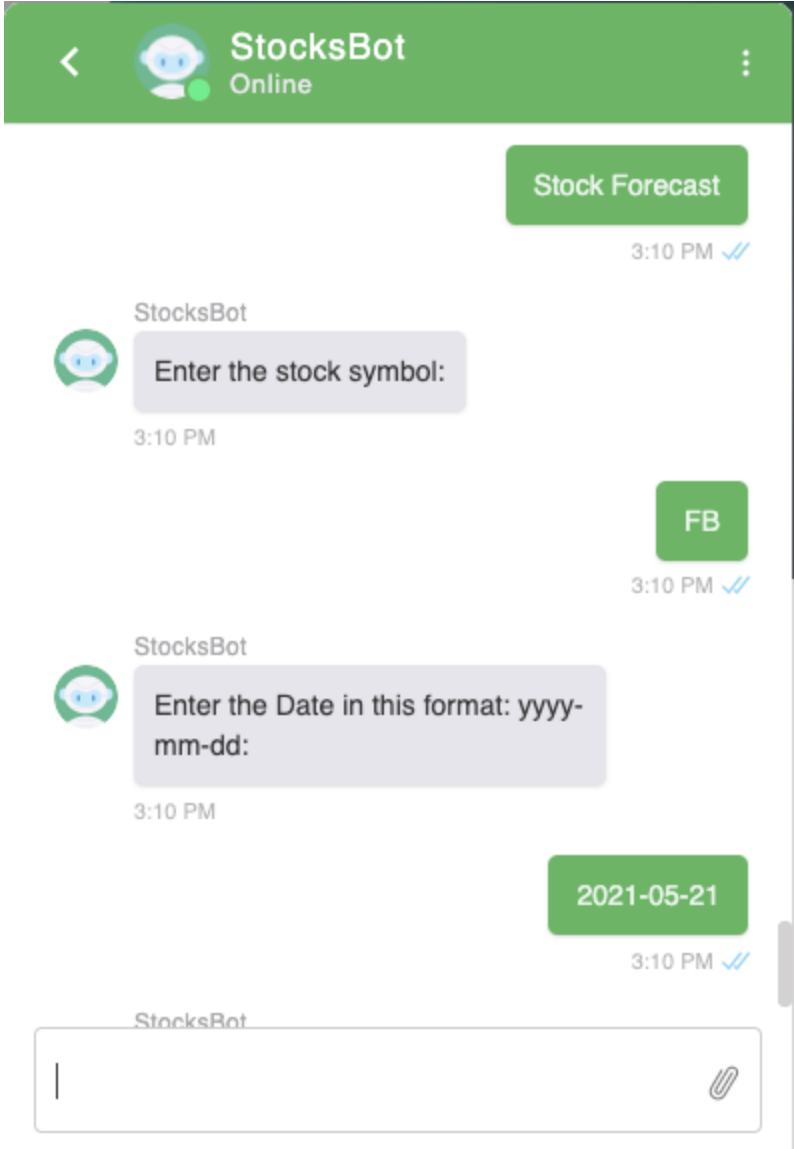
## Use Case VI: Stock Forecast Trend

### Test Case 12

Test Case Id	<b>12</b>
Option chosen	Stock Forecast

Test title	ML Model to perform predictions Random String Input and subsequently Random future Date Input
Test design date	04/26/2021
Test execution date	04/29/2021
Test data	Write "Stock Forecast" in the chat box  Enter the stock symbol: FB Enter the Date in this format: yyyy-mm-dd: 2021-05-21
Expected Result	\$267.31

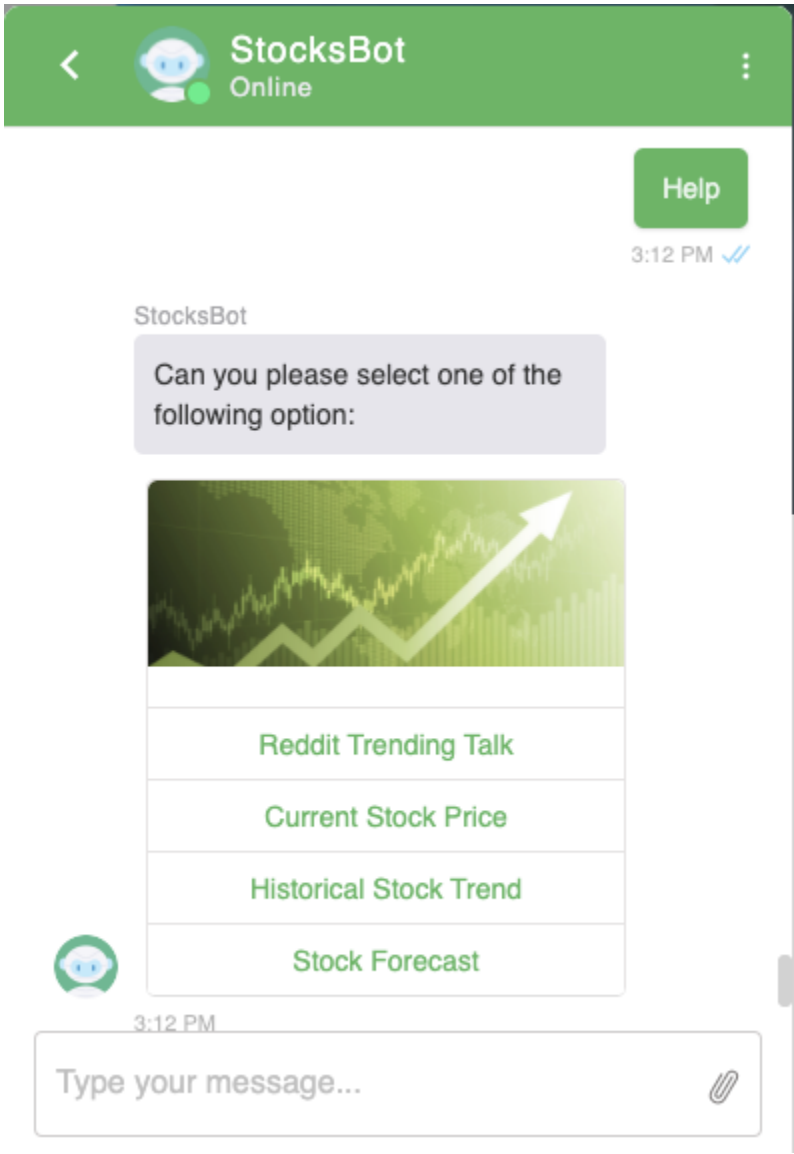


Actual Result	
Status (Pass/ Fail)	<b>Pass</b>

## Use Case VII: Chat bot options

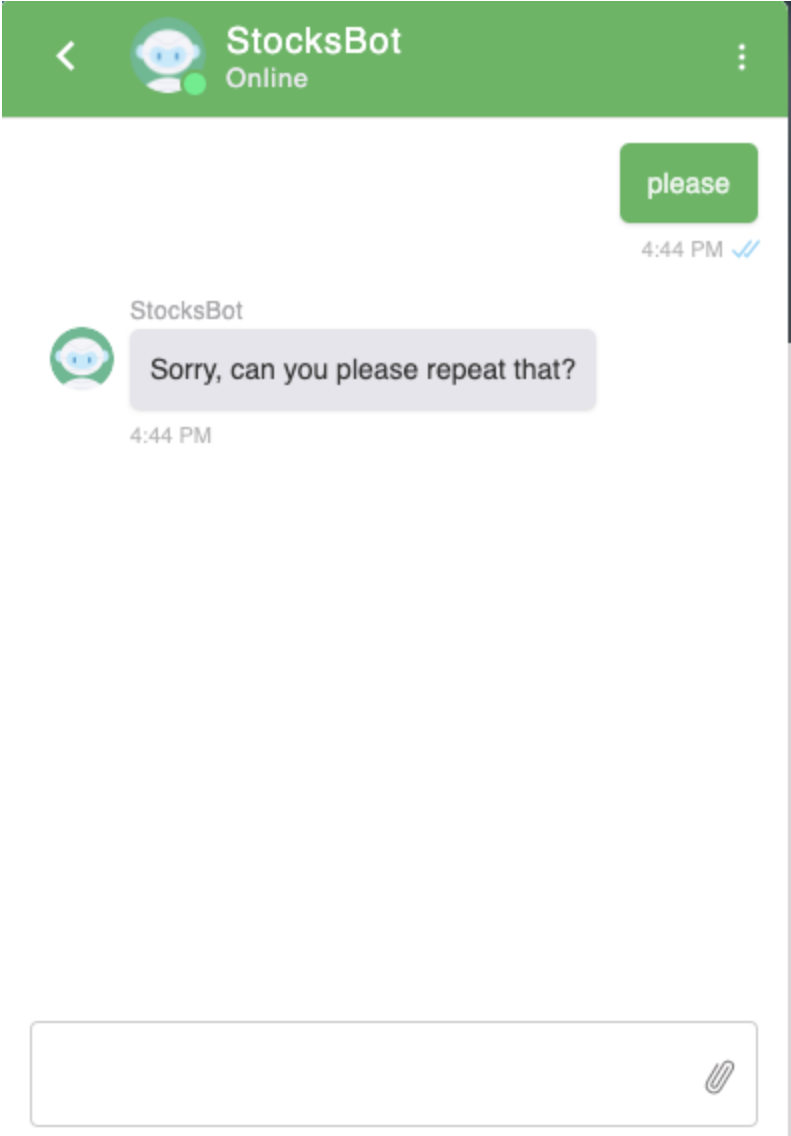
### Test Case 13

Test Case Id	<b>13</b>
--------------	-----------

Option chosen	Menu
Test title	Menu option
Test design date	04/26/2021
Test execution date	04/29/2021
Test data	Either write "Menu" or "Help" in the chat box
Expected Result	Menu option
Actual Result	
Status (Pass/ Fail)	Pass

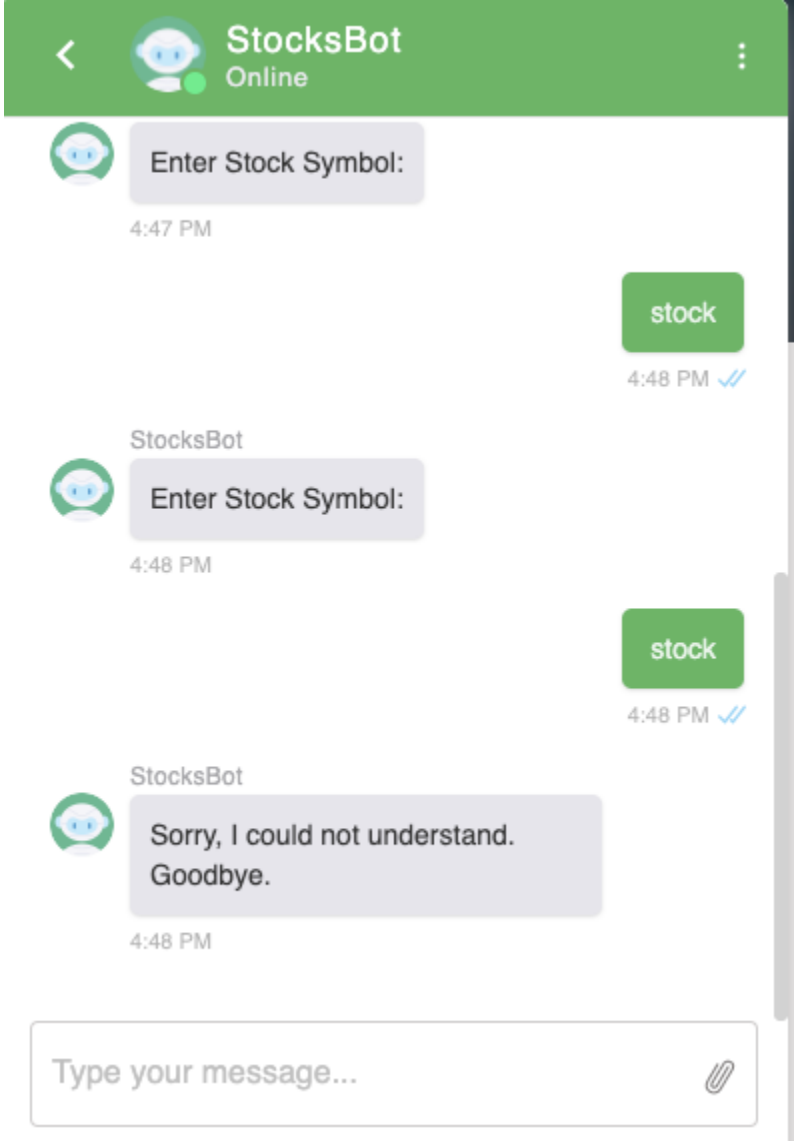
## Test Case 14

Test Case Id	<b>14</b>
Option chosen	Menu Clarification
Test title	Input Check
Test design date	04/26/2021
Test execution date	04/29/2021
Test data	Wrong word
Expected Result	Sorry, can you please repeat that?

Actual Result	
Status (Pass/ Fail)	<b>Pass</b>

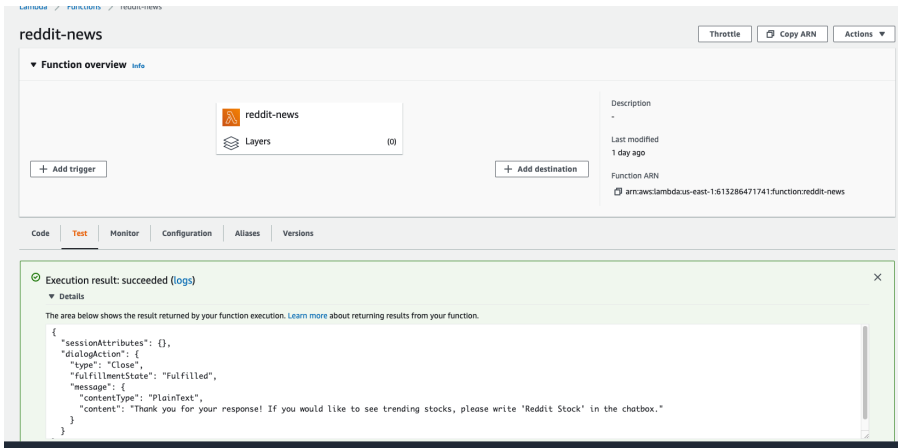
## Test Case 15

Test Case Id	<b>15</b>
Option chosen	Hang-up phrase
Test title	Wrong Input Check
Test design date	04/26/2021

Test execution date	04/29/2021
Test data	Wrong word
Expected Result	Sorry, I could not understand. Goodbye.
Actual Result	
Status (Pass/ Fail)	Pass

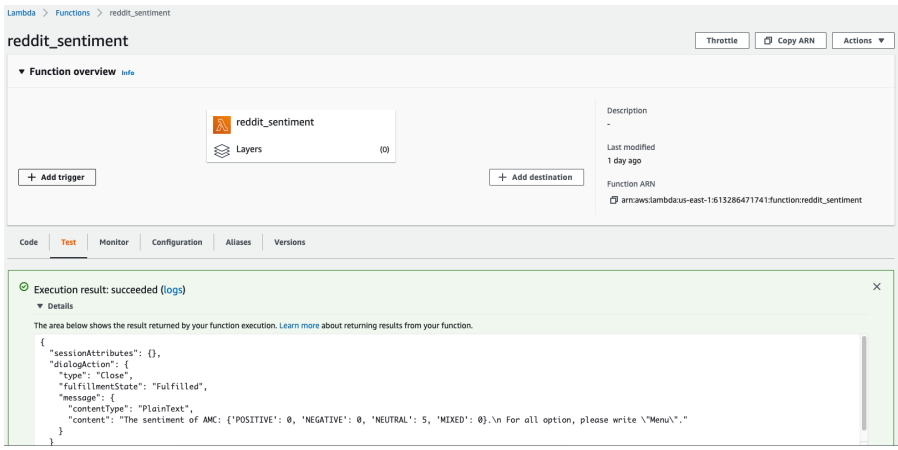
## Use Case VIII: Lambda execution

### Test Case 16

Test Case Id	16
Option chosen	Reddit Trending Talk (Backend)
Test design date	04/26/2021
Test execution date	04/29/2021
Test data	Trigger by chat response "Reddit Trending Talk"
Expected Result	Thank you for your response! If you would like to see trending stocks, please write 'Reddit Stock' in the chatbox
Actual Result	
Status (Pass/ Fail)	Pass

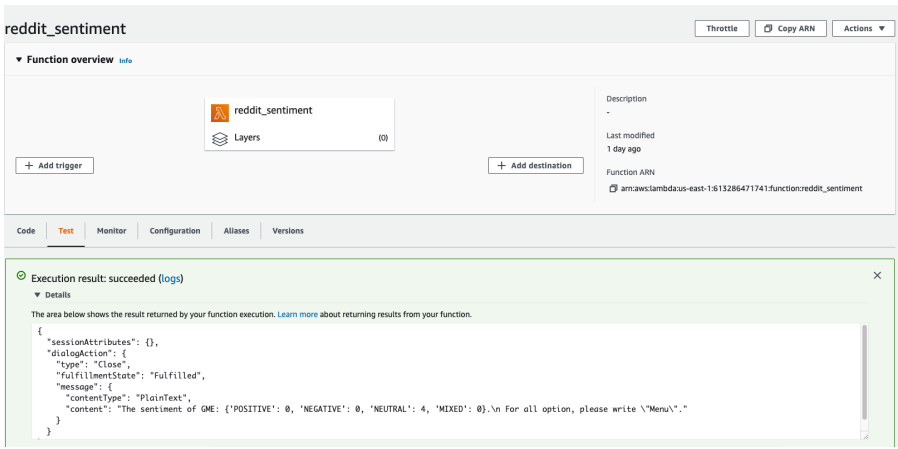
### Test Case 17

Test Case Id	17
Option chosen	Reddit Stock (Backend)
Test design date	04/26/2021
Test execution date	04/29/2021
Test data	Trigger by chat response "Reddit Stock"

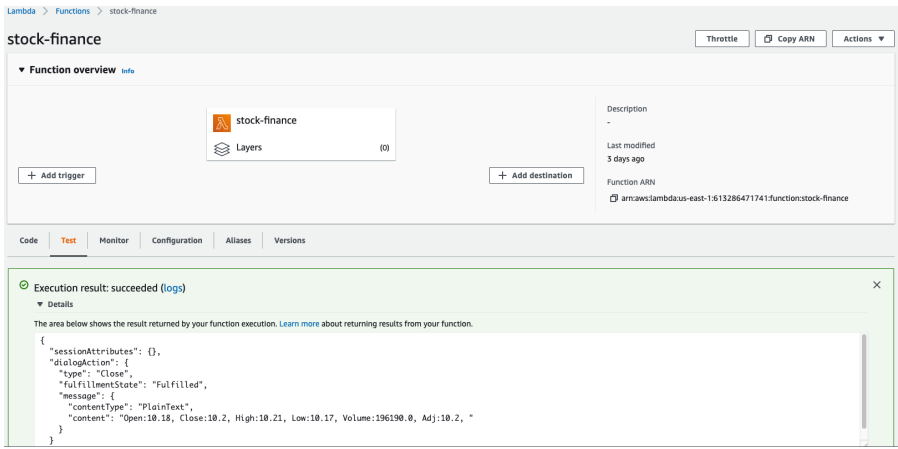
Expected Result	Redditors are talking about these Stocks: ['GME', 'AMC', 'VIAC', 'UWMC', 'BB'] If you would like to know about the sentiments of the discussions, write "Sentiment" in the chat box.
Actual Result	 <p>The screenshot shows the AWS Lambda console for the function 'reddit_sentiment'. The 'Function overview' tab is active, displaying the function's icon, name, and layers. Below this, the 'Execution result: succeeded (logs)' tab is selected, showing the execution logs. The logs indicate that the function executed successfully and returned a JSON response. The response contains session attributes, dialog action information, and a message with sentiment analysis results for AMC.</p> <pre> {   "sessionAttributes": {},   "dialogAction": {     "type": "Close",     "fulfillmentState": "Fulfilled",     "message": {       "contentType": "PlainText",       "content": "The sentiment of AMC: {'POSITIVE': 0, 'NEGATIVE': 0, 'NEUTRAL': 5, 'MIXED': 0}. For all option, please write \"Menu\"."     }   } } </pre>
Status (Pass/ Fail)	<b>Pass</b>

## Test Case 18

Test Case Id	<b>18</b>
Option chosen	Reddit Stock Sentiment (Backend)
Test design date	04/26/2021
Test execution date	04/29/2021
Test data	Trigger by chat response "Sentiment"
Expected Result	The sentiment of AMC: {'POSITIVE': 0, 'NEGATIVE': 0, 'NEUTRAL': 5, 'MIXED': 0}. For all options, please write "Menu".

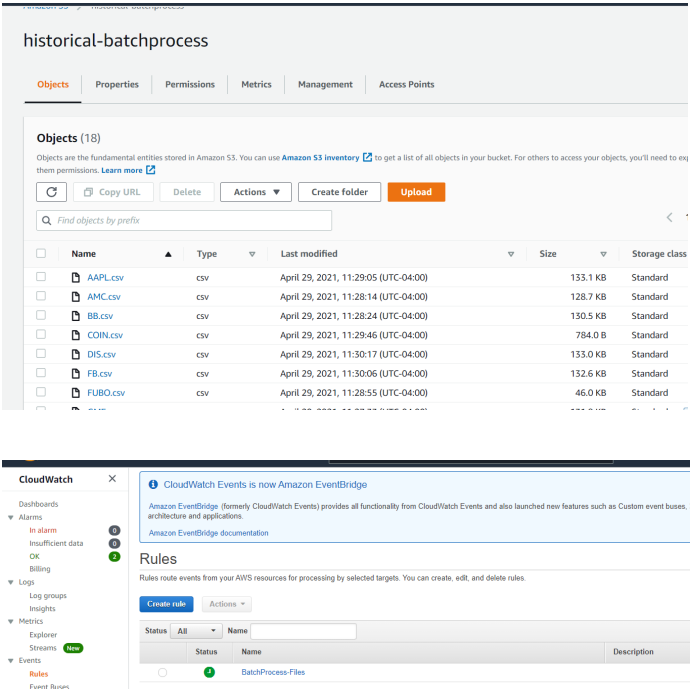
Actual Result	 <p>The screenshot shows the AWS Lambda console for the function 'reddit_sentiment'. The 'Function overview' tab is active, displaying the function name, layers, and a description. Below this, the 'Test' tab is selected, showing the execution result: 'Execution result: succeeded (logs)'. The logs display a JSON object with session attributes, dialog action, and a message content.</p> <pre> {   "sessionAttributes": {},   "dialogAction": {     "type": "Close",     "fulfillmentState": "Fulfilled",     "message": {       "contentType": "PlainText",       "content": "The sentiment of GME: {'POSITIVE': 0, 'NEGATIVE': 0, 'NEUTRAL': 4, 'MIXED': 0}. For all option, please write \"Menu\"."     }   } } </pre>
Status (Pass/ Fail)	Pass

## Test Case 19

Test Case Id	19
Option chosen	Reddit current stock price (Backend)
Test design date	04/26/2021
Test execution date	04/29/2021
Test data	Trigger by chat response "Current Stock Price"
Expected Result	Open:10.17, Close:10.21, High:10.21, Low:10.17, Volume:0.0, Adj:10.21
Actual Result	 <p>The screenshot shows the AWS Lambda console for the function 'stock-finance'. The 'Function overview' tab is active, displaying the function name, layers, and a description. Below this, the 'Test' tab is selected, showing the execution result: 'Execution result: succeeded (logs)'. The logs display a JSON object with session attributes, dialog action, and a message content.</p> <pre> {   "sessionAttributes": {},   "dialogAction": {     "type": "Close",     "fulfillmentState": "Fulfilled",     "message": {       "contentType": "PlainText",       "content": "Open:10.18, Close:10.2, High:10.21, Low:10.17, Volume:196190.0, Adj:10.2, "     }   } } </pre>
Status (Pass/ Fail)	Pass



# Test Case 20

Test Case Id	20
Option chosen	Historical Stock Analysis Trend (Backend)
Test design date	04/26/2021
Test execution date	04/29/2021
Test data	Trigger by chat response "Historical Stock Trend"
Expected Result	<p>Follow this link to see the dashboard:</p> <p><a href="https://app.powerbi.com/view?r=eyJrIjoiaZThjYTk0NTUtYzZkxZi00YTY4LTkwMWUtZDQzZjEwZmJjYzVklwiwCl6ImE4ZWVjMjgXLFWFhYTMtNGRhZS1hYzliLTlhMzk4YjkyMTVINyIsImMiOjN9&amp;pageName=ReportSection">"https://app.powerbi.com/view?r=eyJrIjoiaZThjYTk0NTUtYzZkxZi00YTY4LTkwMWUtZDQzZjEwZmJjYzVklwiwCl6ImE4ZWVjMjgXLFWFhYTMtNGRhZS1hYzliLTlhMzk4YjkyMTVINyIsImMiOjN9&amp;pageName=ReportSection"</a>, For all option, please write "Menu".</p>
Actual Result	 <p>The screenshot displays the Amazon S3 console for the bucket 'historical-batchprocess'. It shows a list of 18 objects, all of which are CSV files. The objects listed are AAPL.csv, AMC.csv, BB.csv, COIN.csv, DIS.csv, FB.csv, and FUBO.csv. Below the S3 console screenshot, there is a screenshot of the AWS CloudWatch console. The 'Rules' section is visible, showing a rule named 'BatchProcess-Files' with a status of 'OK'.</p>

Status (Pass/ Fail)	Pass

## Test Case 21

Test Case Id	21
Option chosen	Stock Forecast (Backend)
Test design date	04/26/2021
Test execution date	04/29/2021
Test data	Trigger by chat response "Stock Forecast"
Expected Result	\$267.31

Actual Result

Lambda > Functions > stock-predict

stock-predict

ThrottleCopy ARNActions

Function overview

stock-predict

Layers (0)

+ Add trigger

+ Add destination

Description

-

Last modified

2 days ago

Function ARN

arn:aws:lambda:us-east-1:613286471741:function:stock-predict

Code

Text

Monitor

Configuration

Aliases

Versions

Execution result: succeeded (logs)

Details

The area below shows the result returned by your function execution. [Learn more](#) about returning results from your function.

```
{
  "sessionAttributes": {},
  "dialogAction": {
    "type": "Close",
    "fulfillmentState": "Fulfilled",
    "message": {
      "contentType": "PlainText",
      "content": "$267.39"
    }
  }
}
```

Status (Pass/ Fail)

Pass