Stocks Suggestion Engine Test Document

CMPE 285 Team Project

Group No : 2

Team Members :

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System Requirements :
Python 2.7, Windows 10/Mac OSX

Required Python Libraries :
flask, requests, tzlocal, urllib2

Steps To Run Python server :
1. Download () and unzip Team2FinalProject.zip.
2. Inside the folder, run "python app.py"
3. On the command prompt, you will see
       * Running on http://0.0.0.0:5000/ (Press CTRL+C to quit)
       * Restarting with stat
       * Debugger is active!
       * Debugger pin code: 220-484-270
4. In any browser type - "http://localhost:5000/"

10 Test Cases for Stocks suggestion engine :

Test Case 1

Test Id	1	Test Name	Valid Amount and One Strategy Selection
Priority	High	**Module**	Landing Page
Summary		Input a valid amount number and select only one strategy	
Pre-Conditions		Server is running.(please check "Steps To Run Python server :" above) Input is given from Landing Page.	
Steps		1. Open landing page(http://0.0.0.0:5000/). 2. Enter valid Investment amount 3. Select **one** strategy 4. Click "Recommend" Button	
Test Data		Investment Amount – 6000 Strategy – Ethical Investing	
Expected Output		Display Charts page with right information	
Post-Conditions		The output data is displayed on the charts page including a pie chart, line graph and a table of suggested stocks. Table - Gives details about Ticker symbol, company name, actual amount to invest and % of total available amount to invest for each stock. Displays 4 stocks in the table.	
Actual Output		Charts page with correct info is displayed.	
Result		PASSED	
Comments		The detailed test for Charts page is written separately.	

Test case 2

Test Id	2	Test Name	Valid Amount and Two Strategies Selection
Priority	High	**Module**	Charts Page
Summary		Display charts page	

Pre-Conditions	Python server is running. Input is given from Landing Page.
Steps	1. Open landing page(http://0.0.0.0:5000/). 2. Enter valid Investment amount 3. Select **two** strategies 4. Click "Recommend" Button
Test Data	Investment Amount – 7000 Strategies – Growth Investing, Value Investing
Expected Output	Display correct output on Charts page with detailed pie chart including numbers, line graph and a table of suggested stocks
Post-Conditions	Pie Chart – Displays 4 different stocks with their corresponding %. The ticker symbols for the suggested companies are shown beside the pie chart. Line Chart – Displays the weekly trend of the portfolio with 5 day history. Table - Gives details about Ticker symbol, company name, actual amount to invest and % of total available amount to invest for each stock. Displays 4 stocks in the table.
Actual Output	Charts page with right info/charts is displayed.
Result	PASSED
Comments	N/A

Test case 3

Test Id	3	Test Name	Charts Page Input
Priority	High	Module	Charts Page
Summary		Resubmit input on charts page	
Pre-Conditions		Python server is running. Charts page is open.	
Steps		1. Enter valid Amount to invest. 2. Select two investment strategies 3. Click "Submit" Button	
Test Data		Investment Amount – 8000	

	Strategies – Index Investing, Quality Investing
Expected Output	Display correct output with detailed pie chart including numbers, line graph and a table of suggested stocks
Post-Conditions	Pie Chart – Displays 4 different stocks with their corresponding %. The ticker symbols for the suggested companies are shown beside the pie chart. Line Chart – Displays the weekly trend of the portfolio with 5 day history. Table -Gives details about Ticker symbol, company name, actual amount to invest and % of total available amount to invest for each stock. Displays 4 stocks in the table.
Actual Output	Charts page with correct info is Updated
Result	PASSED
Comments	N/A

Test case 4

Test Id	4	**Test Name**	Obtain Current Portfolio Value	
Priority	High	**Module**	Charts Page	
Summary		Show real time portfolio value on Charts Page		
Pre-Conditions		Python server is running. Charts page is open. Must during the daytime when stock market is open to fetch live data.		
Steps		1. After test case3, on current charts page, click "Get Latest Value" button. (Note that for Weekends, the stock market is closed therefore there would be no update.)		
Test Data		N/A		
Expected Output		Display latest portfolio value		
Post-Conditions		Latest portfolio value is displayed in $ in the output box on the left side of the page.		
Actual Output		Latest value is displayed		

Result	PASSED
Comments	The latest value may or may not be same as the one entered as amount.

Test case 5

Test Id	5	Test Name	Help Instructions display
Priority	Low	Module	Help page
Summary		Display help instructions	
Pre-Conditions		Python server is running. Charts page is open.	
Steps		After test case4, on current charts page, click "Help" button. (note: the "Help" button is displayed at any pages, on the right top corner.)	
Test Data		N/A	
Expected Output		Display Help page	
Post-Conditions		Help page is displayed which shows detailed instructions about how to use this suggestion engine. On clicking back button of the browser, Charts page is displayed again.	
Actual Output		Help page displays the instructions.	
Result		PASSED	
Comments		N/A	

Test case 6

Test Id	6	Test Name	Team details display
Priority	Low	Module	Team page
Summary		Display details about development team.	
Pre-Conditions		Python server is running. Charts page is open.	
Steps		Click "Our Team" button.	

	(note: the "Our Team" button is displayed at any pages, on the right top corner.)
Test Data	N/A
Expected Output	Display team details page
Post-Conditions	Team details page is displayed which shows info about the 4 developers of this team. On clicking back button of the browser, Charts page is displayed again.
Actual Output	Team details page displays the dev. team info
Result	PASSED
Comments	N/A

Test case 7

Test Id	7	**Test Name**	Input amount error alert
Priority	High	**Module**	**Landing page**
Summary		Alert the client for the wrong input information	
Pre-Conditions		Python server is running. Landing page is open.	
Steps		On **landing** page ("http://localhost:5000/"), input an invalid amount in the Amount field, choose two strategies and click "Recommend" button .	
Test Data		Input amount = 700; Strategies – Ethical Investing, Growth Investing	
Expected Output		Alert window shows up	
Post-Conditions		User need to resubmit the input amount to proceed.	
Actual Output		Alert window shows up with message: "Value must be greater or equal to 5000"	
Result		PASS	

Comments	Our software can prevent user input extreme number that will cause integer overflow problem.

Test case 8

Test Id	8	Test Name	Select strategy error alert
Priority	High	Module	Landing page
Summary		Alert the client for the wrong selection	
Pre-Conditions		Python server is running. Landing page is open.	
Steps		On landing page, give valid input amount, select more than 2 strategies and click "Recommend" button.	
Test Data		Input amount = 7000. Strategies – Ethical Investing, Growth Investing, Index Investing	
Expected Output		Alert window pop up.	
Post-Conditions		User need to re-select one or two strategies to continue	
Actual Output		Alert window pop up with message: "Pick only one or two please."	
Result		PASSED	
Comments		Our software can only allow user choose one or two strategies for stock investment suggestion.	

Test case 9

Test Id	9	Test Name	Charts page input amount less than lower bound (5000, inclusive)
Priority	High	Module	Charts page
Summary		Alert the client for the wrong input information	
Pre-Conditions		Python server is running. Charts page is open.	

Steps	On landing page, input valid amount and choose one or two strategies, click "Recommend" button, user would then be forwarded to charts page; on **Charts** ("http://localhost:5000/charts") page, input invalid amount (< 5000) and choose two strategies in the Amount field, click "Submit" button.
Test Data	Landing page input amount: 6000; Landing page Strategies – Ethical Investing, Value Investing Charts page Input amount: 3000; Charts page Strategies – Ethical Investing, Value Investing
Expected Output	alert window pops up
Post-Conditions	For input amount < 5000, user need to resubmit the input amount for proceed.
Actual Output	Alert window shows up with message "Amount should be at least $5000."
Result	PASSED
Comments	Our software can prevent user input extreme number that will cause integer overflow problem.

Test case 10

Test Id	10	Test Name	Charts page input amount exceed upper bound (99999999, 8 '9's inclusive)
Priority	High	Module	Charts page
Summary		Alert the client for the wrong input information	
Pre-Conditions		Python server is running. Charts page is open.	
Steps		On landing page, input valid amount and choose one or two strategies, click "Recommend" button, user would then be forwarded to charts page; on **Charts** ("http://localhost:5000/charts") page, input invalid amount (> 99999999) in the Amount field.	
Test Data		Landing page input amount: 6000; Landing page Strategies – Ethical Investing, Value Investing Charts page Input amount: 1000000000. (9 '0's)	

	Charts page Strategies – Ethical Investing, Value Investing
Expected Output	alert window pops up
Post-Conditions	For input amount > 99999999, user need to resubmit the input amount to proceed.
Actual Output	Alert message "Amount should be less than $99999999."
Result	PASSED
Comments	Our software can prevent user input extreme number that will cause integer overflow problem.