Test Plan

Reference data from www.investor.gov

All values bases on annual interest rate of 18%

Test Case	Initial investment $1000, Contribution 0			Saving 100 p/month Start balance 0			Saving 100 p/month Start balance 1000		
Compound Frequency	Monthly	Quarterly	Annualy	Monthly	Quarterly	Annualy	Monthly	Quarterly	Annualy
Running time:									
1Y	$ 1,195.60	$ 1,192.00	$ 1,180.00	$ 1,304.00	$ 1,283.00	$ 1,200.00	$ 2,499.60	$ 3,691.60	$ 2,380.00
10Y	$ 5,969.30	$ 5,816.00	$ 5,233.84	$ 33,128.80	$ 32,109.00	$ 28,225.57	$ 39,098.10	$ 44,914.10	$ 33,459.00
20Y	$ 35,632.80	$ 33,830.00	$ 27,393.00	$ 230,885.00	$ 218,867.00	$ 175,953.56	$ 266,517.80	$ 300,347.80	$ 203,347.00
50Y	$ 7,579,235.00	$ 6,656,686.00	$ 3,927,357.00	$ 50,521,564.00	$ 44,371,242.00	$ 26,175,712.00	$ 58,100,799.00	$ 51,027,928.00	$ 30,103,069.00

Integration test, whole program:

Feature:		Test data	Expected return	Test result
calculate capital :	Fill in data in input mask, calculate results and check output against Reference data	reference Data	nominal	Pass
store file	Check values against reference data	reference Data	nominal	Pass
Display Table	Check contents against reference data	reference Data	nominal	Pass
Plot Function of future value and total contributions	Check values against reference data	reference Data	nominal	Pass
Read file	Fill in file name and read file. Check graph against input file	reference Data	nominal	Pass

Test Plan

Test of speciall cases

Input	Reaction	Test result
Nothing	Displays warning under the empty field	Pass
0 in each field	returns 0	Pass
Negative number	will be ignored for investment period	Pass
Characters	Displays warning under the missing field	Pass
Overflow	If the calculate function returns overflow en error message to check the input data is displayed	Pass
		Pass
nothing in file name	displays file name required	Pass
incorrect file name	displays file error	Pass

Function test

Execute each function by itself with test data as per table

Function	Test data	Expected return	Test result
fetch_data	reference Data	nominal	Pass
formula.calculate_capital	reference Data	nominal	Pass
file.store_csv	reference Data	nominal	Pass
read()	reference Data	nominal	Pass
graph.plot_graph	reference Data	nominal	Pass
file.read_csv	reference Data	nominal	Pass
graph.plot_data	reference Data	nominal	Pass