

# Compound Interest Calculator

## 1. Compound Interest Calculator Application

- Open the “dist” folder. The calculator application is located inside the “dist” folder.
- Run the compoundInterestCalculator application.
- The user will be presented with a text asking the user to either press the enter key, to use the calculator or input ‘exit’, to close the application. If the input is other than those two, the application will display an error message.

```
To calculate the time it will take to reach a target amount, press enter. To exit, type 'exit'  
input: |
```

- If the user presses the enter key, the program will ask the user to input the deposit amount, interest rate, and multiplication factor in order one by one. If the user inputs the wrong type of input, the application will display an instruction on how to do the input. If the correct input is entered, the application will calculate the compound interest and display how many years it took to reach the target amount.

- o Correct input example

```
To calculate the time it will take to reach a target amount, press enter. To exit, type 'exit'  
input:  
Enter deposit amount ($): 300  
Enter interest rate (%): .9  
Enter multiplication factor: 2  
It will take 78 year(s) to reach $600.00  
press enter to continue|
```

- o Incorrect input example

```
To calculate the time it will take to reach a target amount, press enter. To exit, type 'exit'  
input:  
Enter deposit amount ($): 300  
Enter interest rate (%): 2%  
Please enter a number greater or equal than 1 without symbols
```

- The program will loop again until the user types “exit”.

## 2. unittest

- A unit test is available for the calculator.
- The test cases are written inside the “test” file.
- To run the test, user can use a command prompt by changing the directory into the project’s directory and typing the command “python test.py”.

```
D:\OpenWay Test\Project>python test.py  
.....  
-----  
Ran 16 tests in 0.001s  
  
OK
```