# Os Kodeklubb

## Python — 001

### 🟩 Task :: Beginner

1. Make a script that prints the following pattern in the
   console:

```
*
* *
* * *
* * * *
* * * * *
```

2. Expand the script to create a vertical mirror image of the
pattern

```
*
* *
* * *
* * * *
* * * * *
* * * * * *
* * * * *
* * * *
* * *
* *
*
```

3. Expand the script once more to create a horizontal mirror
image of the vertical mirror pattern

```
     *
    * *
   * * *
  * * * *
 * * * * *
* * * * * *
 * * * * *
  * * * *
   * * *
    * *
     *
```
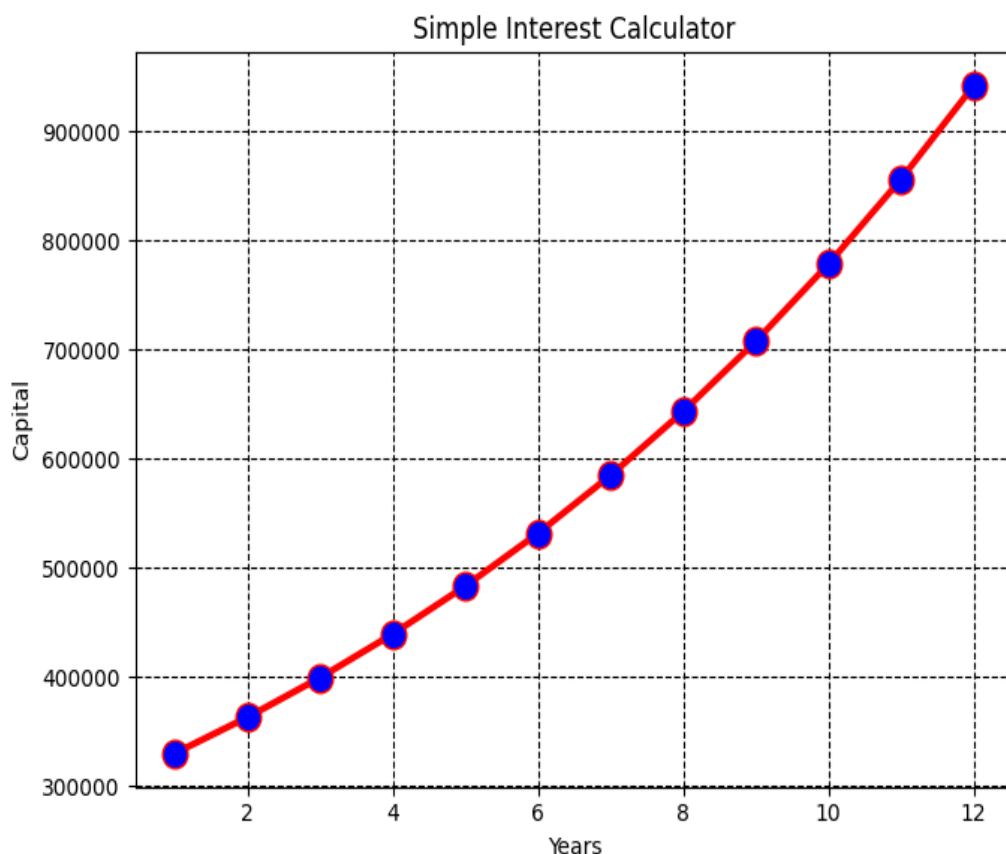
■ **Task :: Intermediate**

1. Make a simple script that calculates interest rate of x
   amount of money over y amount of time with z interest rate
   with the formula: Simple Interest = ((X * Y * z) / 100)

   Include the 3 inputs:

   • capital
   • years
   • interest_rate

2. Expand the script to get the intrest year by year ***import
   matplotlib.pyplot as plt*** and draw a graph displaying the
   capital on the x-axis and the years on the y-axis. The
   graph could look something like this:



3. Style your graph to make it look cool 😎

■ **Task :: Advanced**

1. Implement and expand the simple_interest solution from Intermediate Task 1 to calculate the interest year by year and save it as a CSV file in a directory in your workspace.

2. Loop through all the CSV files the folder and plot them all to the same graph with different colors made using mathplotlib.

3. Now for each time you run the script a new CSV file will be appended to the folder and the graph will go through each file and render them as different lines with different colors on the same graph.

– **Good luck** 🍀