



Python: The Easy Way

Lab 1

Python Installation



- 1 Download the convenient Python version from the official website:

Website: <https://www.python.org/downloads/>

- 2 Run the executable file downloaded and follow the instructions

- 3 Add Python to Path (Environment) Variables to be global command:

You will find The steps screenshots here:

<http://www.howtogeek.com/197947/how-to-install-python-on-windows/>



Linux or OS X

In most of Linux distributions, you will find python installed

`python`

`#for python 2`

`python3`

`#for python 3`

On Mac OS X

`brew install python`

`#for python 2`

`brew install python3`

`#for python 3`



Lab 1 Assignments



Vowels Removal

Write a program that remove all vowels from the input word and generate a brief version of it.

Input

String

"mobile"

Output

String

"mbl"

Bonus: You can make a function like `replace Fn`. but takes list of strings instead of one string.



Character Locator

Input

String

"This is javaScript"

Letter

"i"

Output

List

[2, 5, 15]



Multiplication Table

Write a program that generate a multiplication table from 1 to the number passed

Input

number

3

Output

List of Lists

[[1], [2, 4], [3, 6, 9]]

Calculate Area

Write a function that calculate the area of these shapes:

triangle = $(0.5 * \text{base} * \text{height})$, rectangle = $(\text{width} * \text{height})$, Circle = $(\text{PI} * \text{radius}^2)$

Input			
Triangle	string "↑"	number 10	number 7
Rectangle	string "r"	number 10	number 7
Square	string "r"	number 10	
Circle	string "c"	number 10	

The Dictionary

Write a program convert a list of names into sorted dictionary which key is the Alpha. and value is a list of names corresponding to this alpha.

Input

List

```
["ahmed", "fatma", "Ibrahim"]
```

Output

Dictionary

```
{a:["ahmed"], f:["fatma"], i:["Ibrahim"]}
```



Mario Pyramid

Write a program that build a Mario pyramid like below:

Input

number

4

Output

String

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



Thank You