

## Coding Lab

By Doug Purcell

Create a python file called `lab.py` and put your solutions to the following problem set in it. Note, collaboration on Slack and Zoom IS encouraged.

- 1) Create 2 variables. Swap them and print their values.
- 2) Write an `if` statement that compares two numbers and prints the larger.
- 3) Write an `if` statement that compares two strings and prints the larger.
- 4) Write a `for` loop that prints the evens numbers from 1-100.
- 5) Rewrite #4 using a `while` loop.
- 6) Write a nested loop which prints the following pattern:

```
***
```

```
***
```

```
***
```

- 7) Write a nested loop which prints the following pattern:

```
*
```

```
* *
```

```
* * *
```

```
* * * *
```

```
* * * * *
```

- 8) Create a list that has 10 random numbers. Iterate through the list and sum them. Use the built-in `random` module.

9) Create a dictionary called `grocery` that contains a grocery list of 10 items. Create another dictionary called `amazon` which represents any five items. Write code to combine both dictionaries into a new dictionary.

10) Create a string which holds the content of `text.txt` in a string. Generate a new string which uppercases every character in the following set: {a, e, I, o, u, y}

11) Create a function named `summation` that accepts an arbitrary number of arguments and prints the summation of all the values. I.e:

```
>>> summation(1, 5, 10)
```

```
...
```

```
16
```

```
>>> summation(1, 3, 4, 5, 10)
```

```
...
```

```
23
```

```
summation(1 , 2)
```

```
...
```

```
3
```

Once done, create a new directory on your Desktop called `learnit_python_two`, and add `lab.py` to the file. Post your GitHub link to the slack channel once done.