Adamson University
College of Engineering
Computer Engineering Department

Linear Algebra

Laboratory Activity No. 1

Getting Acquainted with Python

Submitted by:
Roa, Danica Kate I.

Instructor:
Engr. Dylan Josh D. Lopez

OCTOBER 3 , 2020

I. Objectives

This laboratory activity aims to learn the basic principles and different techniques that be use in python. And learn the transition of language from c++ to python.

II. Methods

In this activity, we get to know the basic command in Python and on how are we translate from c++ t python. Python is an interpreted, high-level and general-purpose programming language. It suppots multiple programming paradigms.

According to my research “Python can be used on a server to create web applications, can be used alongside software to create workflows, can connect to database systems. It can also read and modify files, can be used to handle big data and perform complex mathematics, can be used for rapid prototyping, or for production-ready software development.” *(W3Schools.com)*

“The terms parameter and argument can be used for the same thing: information that are passed into a function. A parameter is the variable listed inside the parentheses in the function definition. An argument is the value that is sent to the function when it is called.” *(W3Schools.com)*

III. Results

```
In [13]: party = ['Charmander', 'Pidgey', 'Sandshrew', 'Rattata', 'Abra']; levels = [15, 11, 18, 5, 14]
```

Figure 1

In figure one (1) ,I’ve declaire the vaariables for party, inside the party is the list of pokemons and on the levels is their respective levels. Semicolon is use to separate two list and to make your code in a one liner. Also, you can just press enter if you don’t want to use semicolon its just the same function.

```
In [7]: for pokemon,level in zip(party, levels): print(pokemon, "at level", level)
Charmander at level 15
Pidgey at level 11
Sandshrew at level 18
Rattata at level 5
Abra at level 14
```

Figure 2

In figure two (2), I used zip function to combine the two sets of variables that are declaired in figure one (1) and the print function is used to show what you want to be seen by the users or the output.

Figure 3

In figure thee (3) I declaire all the pokemons and their respective levels and name it as a group of reserves.

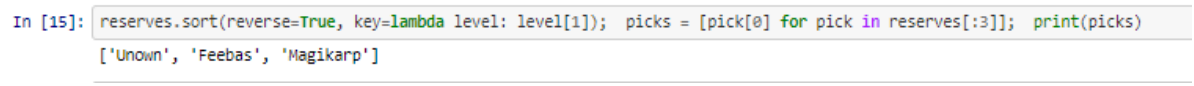

Figure 4

In figurefour (4) there are two function used those are sort and lambda. For sort function it us use to sort the level in descending order and the function lambda is used to create anonymous function that sorts the level in the list.

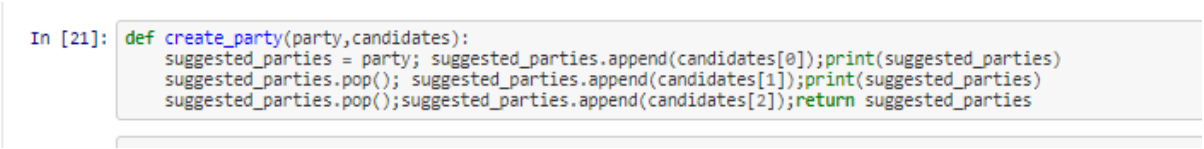

Figure 5

In figure five (5) Creating a group that will select candidates, and let the program pick from the cell one (1) and print the first output.

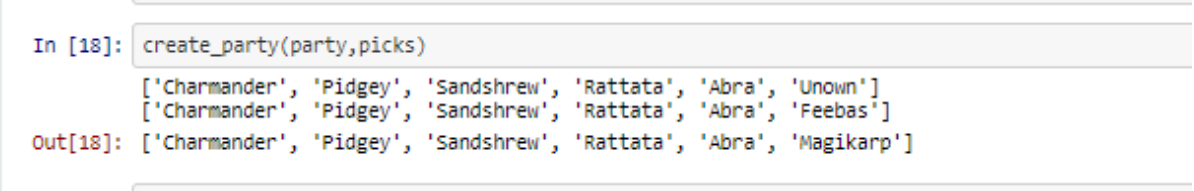

Figure 6

In figure six (6) it is where the program will call all those group that are made in figure five (5) which will be the output of the figure 6.

IV. Conclusion

I conclude that I should read more to learn new ways and techniques on how t code a program using the language python and be knoledgable on the different function that can be used in next activities and also be mindful of the parameters that I may use. I've learn a lot in this activity by simply remaking what been shown to us and also it helps us to learn and know to convert the c++ language to python language.

References

[1] D.J.D. Lopez. “Adamson University Computer Engineering Department Honor Code,” AdU-CpE Departmental Policies, 2020.

[2] w3schools.com/python/python_functions.asp

[3] https://www.w3schools.com/python/python_dictionaries.asp