Documentation for 17 May, 2021 and 18th May 2021

Work assigned:

1. Create your account on GitHub and share the link.

2. Create an account on Databricks as well and Create a Cluster.

3. Write Python codes for Iterating List and Different types of Loops.

4. Write Python code for iterating nested List, dictionary and nested dictionary and Document it.

Implementation of the assignment:

1.1) Already had a GitHub account

Link:

<https://github.com/shaleenbardar/Task1-Loop-Itrations-and-Spark-Basics>

2. Create an account on Databricks

2.1) Opened

<https://databricks.com/>

2.2) Choose the community version.

2.3) Created a new account.

2.4) Verification of my email id.

2.5) Account has been created.

3) I’ve Created and uploaded List\_Iterations\_and\_Loops.ipynb, contains the code for different types of list iterations and loops.

In this I’ve Statically created the list and insert the values into it.

3.1) In this I’ve used the basic for loop, iterating the values of list without index.

3.2) In this I’ve iterated the value using index, pre-defined function used are->

* Len() - This is a predefined function, used to get the length of the object which is ingested as an argument into it. It also count the blank spaces
* Range() - This is used to Define the range till which for loop should be iterated, For ex. Range(0:10) - Implies that for loop should be iterated from 0 to 10.

3.3) In this I’ve used pre-defined function -

* Enumerate(iterable, start=0) - Return an enumerate object. *iterable* must be a sequence, an [iterator](https://docs.python.org/3/glossary.html#term-iterator), or some other object which supports iteration

3.4) In this I’ve used while loop to iterate the list using len() function and I as an iterable variable.

3.5) In this I’ve used-

* List Comprehension – It is a shorter syntax way of creating a list based on the values of an existing list.

3.6) In this I’ve used -

* A way to print all the values of list as a string and used a separator - \n to print values into different lines. Example – print(\*list, sep = ‘\n’), we can use ‘ ’ as separator as well if you want to print list values in a single line.

3.7) In this I’ve made two static list – l1 and l2 to implement nested for loops, where i is used as an iterable variable to fetch values of l1 through index and j is used as an iterable variable to fetch values for l2 through index.

4) I’ve Created a file named nested\_list\_and\_dict.ipynb, which contains the code of the iteration of nested list, dictionaries and nested dictionary.

4.1) Nested List - A [list](https://www.learnbyexample.org/python-list/) can contain any sort object, even another list (subsist), which in turn can contain sub lists themselves, and so on. This is known as nested list.

This code includes ->

* Making a nested list using an existing list. For example –l1 = [‘cat’,’bat’,’mouse’],by applying a nested loop at the index of new loop l2, the nested list will be created as l2 = [[‘c’,’a’,’t],[‘b’,’a’,’t’],[‘m’,’o’,’u’,s’,’e’]]
* Accessing individual items in a nested list using multiple indexes.
* Nested list can be iterated using nested loop

4.2) Dictionary - Dictionaries are used to store data values in key:value pairs. Dictionary items are ordered, changeable, and does not allow duplicates.

Dictionary items are presented in key:value pairs, and can be referred to by using the key name.

* You can access a dictionary value using its particular key.
* You can get a list of keys using dictionary\_name.keys().
* Can change of value of dictionary using the key.
* Dictionary.items() - will provide the items of dictionary as a tuple.

4.3) Nested Dictionary - In Python, a nested dictionary is a dictionary inside a dictionary. It's a collection of dictionaries into one single dictionary.

* Nested list values can be accessed using the key of the dictionary followed by another key that present in the value of the dictionary.
* Iteration through a nested dictionary values can be done by using nested for loops followed by iterable variable that represent the keys of the dictioanry to access the values.