PART-B

Assignment NO.4

Title: Perform the following operations using Python on the Facebook metrics data sets.

a. Create data subsets

b. Merge Data

c. Sort Data

d. Transposing Data

e. Shape and reshape Data

Objectives:

1. To understand and apply the Analytical concept of big data using Python.
2. To study detailed concept Python.

Aim: To perform basic analytical operation on given dataset.

Theory:

Python is an object-oriented programming language created by **Guido Rossum** in 1989. It is ideally designed for rapid prototyping of complex applications. It has interfaces to many OS system calls and libraries and is extensible to C or C++. Many large companies use the Python programming language, including NASA, Google, YouTube, BitTorrent, etc.

Features of Python is as it is a dynamic, high level, free open source and interpreted programming language. It supports object-oriented programming as well as procedural oriented programming.

1. Easy to code:

Python is a high-level programming language. Python is very easy to learn the language as compared to other languages like C, C#, Javascript, Java, etc. It is very easy to code in python language and anybody can learn python basics in a few hours or days. It is also a developer-friendly language.

2. Free and Open Source:

Python language is freely available at the official website and you can download it from the given download link.

 # Group B: Assignment based on Data analytic using python

```
import pandas as pd
import numpy as np
df=pd.read_excel("dataset_Facebook_1_xlsx")
```

#Perform following operation using python on Facebook matrics data sets

```
df.head()

df.info()

df.isnull()

df.dropna(how='any',axis=0)
```

 # Create data subsets

```
df1=df.loc[1:245,['Category','Lifetime Post Total Reach','Type','Total Interactions']]

df2=df.loc[245:500,['Post Month','Post Weekday','Post Hour','Lifetime Post Consumers']]

df1

df2
```

 # Mearge 2 dataset/subsets

```
df_row = pd.concat([df1, df2])

df_row
```

#shape and reshape data

```
df.shape

df.melt()
```

 # Transposing Data

```
df.transpose()

df1.transpose()

df2.transpose()
```

 # Sorting data

```
df.sort_values(by='Category')

df.sort_index()
```

CONCLUSION: Thus we have learnt how to perform the different reshape operations using Python**.**