INFORMATICS PRACTICES
CLASS XII 2020-2021

TOPIC : PYTHON PANDAS – DATA FRAME OBJECTS
ASSIGNMENT

By

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1. Write a Python program to create the following Data Frame A

	Eno	Name
Q	12	Sanjay
R	23	Arun
S	11	Veena
T	14	Joshua

and perform the following operations in it.

(a) Display the data frame A

(b) Display the row index and column names.

(c) Display the values of Eno column.

(d) Display the values of the rows R and S.

(e) Add a column 'Dept' with values 'Sales', 'HR', 'IT', 'Sales'

(f) Change Arun's Eno to 25

(g) Add a row 'M' with Eno 56, Name 'Ajmal' and Dept 'Sales'

(h) Delete the row 'S'

(i) Display the last two rows.

(j) Display the values of the data frame column wise

(k) Display the duplicate rows

2. Create a CSV file Emp.csv with the following data

Eno	Name
12	Sanjay
23	Arun
11	Veena
14	Joshua

and write a Python program to read the file and store the data in a data frame Emp and display the data frame.

3. Write a Python Program to create the following Data Frames X and Y

```
     X                    Y

   A  B              A B C

1   10 20            0 3 4

2   22 14            1 7 5
```

and perform the following operations on them.

(a) Display the difference between Y and X

(b) Display the result when X is raised to the power 2

(c) Display the elements which are more than 15 in X.

(d) Store the data frame Y in a csv file data1.csv

4. Find the output of the following Python code :

```python
import pandas as pd
diSales={2015:[34500,56000,47000,49000],\
         2016:[44900,46100,57000,59000],\
         2017:[54500,51000,57000,58500]}
df1=pd.DataFrame(diSales,index=['Qtr1','Qtr2','Qtr3','Qtr4'])
print(df1)
print(df1.loc['Qtr2':'Qtr3',2016])
print(df1.iloc[1:3,:1])
```