**Python DataFrame**

1 Create an empty dataframenamed as**empty\_df**.

import pandas as pd

empty\_df = pd.DataFrame()

print(empty\_df)

2 Create a dataframe named as **students** using a list of names of 5 students.

import pandas as pd

students = ["Ram","Aman","Akash","Ramesh","Virat"]

students = pd.DataFrame(students,columns=["Name"])

print(students)

3 Write a program to create a dataframe **players** using a list of names and scores of the previous three matches.

**Using Nested List**

import pandas as pd

data = [["Virat",55,66,31],["Rohit",88,66,43],["Samson",99,101,68]]

players = pd.DataFrame(data, columns = ["Name","Match-1","Match-2","Match-3"])

print(players)

**Using Dictionary**:

import pandas as pd

data = {"Virat":[55,66,31],"Rohit":[88,66,43],"Samson":[99,101,68]}

players = pd.DataFrame(data,columns = ["Name","Match-1","Match-2","Match-3"])

print(players)

4 Write a program to create a dataframe **salesman** using the series sales\_person which stored saleman names and quantity of sales of August.

import pandas as pd

sales\_person = [["Ram",55],["Ajay",22],["Vijay",67],["Sachin",44]]

salesman = pd.DataFrame(sales\_person,columns=["Name","Sales(August)"])

print(salesman)

5 Write a program to create a dataframe **countries** using a dictionary which stored country name, capitals and populations of the country.

import pandas as pd

country\_data = {"Country Name":["India","Canada","Australia"],

"Capital": ["New Delhi","Ottawa","Canberra"],

"Population" : ["136 Cr","10 Cr","50 Cr"] }

countries = pd.DataFrame(country\_data)

print(countries)

**Python DataFrame based on iterrows() and iteritems()**

6 Iterate dataframe created in question no. 3 by its rows.

import pandas as pd

data = [["Virat",55,66,31],["Rohit",88,66,43],["Samson",99,101,68]]

players = pd.DataFrame(data, columns = ["Name","Match-1","Match-2","Match-3"])

for index, row in players.iterrows():

print(index, row.values)

7 Iterate dataframe created in question no. 4 by its columns.

import pandas as pd

sales\_person = [["Ram",55],["Ajay",22],["Vijay",67],["Sachin",44]]

salesman = pd.DataFrame(sales\_person,columns=["Name","Sales(August)"])

for index, row in salesman.iterrows():

print(index, row["Name"],row["Sales(August)"])

8 Print scores of previous two matches along with their names using iterrows function. (Use dataframe created in question 3)

import pandas as pd

data = [["Virat",55,66,31],["Rohit",88,66,43],["Samson",99,101,68]]

players = pd.DataFrame(data, columns = ["Name","Match-1","Match-2","Match-3"])

for index, row in players.iterrows():

print(index, row["Name"],row["Match-2"],row["Match-3"])

9 Print sales of salesman along with their index using iteritems(). (Use dataframe created in question 4)

import pandas as pd

sales\_person = [["Ram",55],["Ajay",22],["Vijay",67],["Sachin",44]]

salesman = pd.DataFrame(sales\_person,columns=["Name","Sales(August)"])

for index, row in salesman.iteritems():

print(index, row["Name"],row["Sales(August)"])