Program 21

October 25, 2022

1 PROGRAM 21

Aim : Write a pandas program to create a dataframe(6 records) which has the fields id,name,age,degree,cgpa a)insert a new column 'class' into the dataframe and populate values b)Find out total no.of columns in the dataframe c)select top 3 rows ,last 4 rows d)delete all rows which have null values e)drop 'id' column f)select name,cgpa from 2 to 5 records g)fill null values in the age column with mean value ##### Date : 26/08/2022 ##### By : Anu C Scharia

[ ]:
```
import numpy as np
import pandas as pd
student={"id":[1,2,3,4,5,6],"name":["A","B","C","D","E","F"],"age":
 ↪[21,20,22,23,20,np.nan],"degree":
 ↪["MCA","MSC","MCA","MSC","MCA","MSC"],"CGPA":[7,5,8,9,9,np.nan]}
df=pd.DataFrame(student)
print(df)
```

[55]:
```
clas=["First","Second","First","First","Second","Second"]
df["class"]=clas
print(df)
```

```
   id name   age degree  CGPA   class
0   1    A  21.0    MCA   7.0   First
1   2    B  20.0    MSC   5.0  Second
2   3    C  22.0    MCA   8.0   First
3   4    D  23.0    MSC   9.0   First
4   5    E  20.0    MCA   9.0  Second
5   6    F   NaN    MSC   NaN  Second
```

[38]:
```
print("Toatl No of Columns =",len(df.axes[1]))
```

```
Toatl No of Columns = 6
```

[37]:
```
print(df.head(3),"\n",df.tail(4))
```

```
   id name   age degree  CGPA   class
0   1    A  21.0    MCA   7.0   First
1   2    B  20.0    MSC   5.0  Second
2   3    C  22.0    MCA   8.0   First
```

```
    id name   age degree  CGPA   class
2   3    C  22.0    MCA   8.0   First
3   4    D  23.0    MSC   9.0   First
4   5    E  20.0    MCA   9.0  Second
5   6    F   NaN    MSC   NaN  Second
```

[52]:
```
df=df.dropna()
print(df)
```

```
   id name   age degree  CGPA   class
0   1    A  21.0    MCA   7.0   First
1   2    B  20.0    MSC   5.0  Second
2   3    C  22.0    MCA   8.0   First
3   4    D  23.0    MSC   9.0   First
4   5    E  20.0    MCA   9.0  Second
```

[43]:
```
df.pop("id")
print(df)
```

```
  name   age degree  CGPA   class
0    A  21.0    MCA   7.0   First
1    B  20.0    MSC   5.0  Second
2    C  22.0    MCA   8.0   First
3    D  23.0    MSC   9.0   First
4    E  20.0    MCA   9.0  Second
5    F   NaN    MSC   NaN  Second
```

[56]:
```
print(df.loc[[2,3,4,5],["name","CGPA"]])
```

```
  name  CGPA
2    C   8.0
3    D   9.0
4    E   9.0
5    F   NaN
```

[81]:
```
print(df["age"])
mean=df["age"].mean()
df["age"].fillna(mean,inplace=True)
print(df)
```

```
0    21.0
1    20.0
2    22.0
3    23.0
4    20.0
5     NaN
Name: age, dtype: float64
   id name   age degree  CGPA
```

```
0   1    A  21.0    MCA   7.0
1   2    B  20.0    MSC   5.0
2   3    C  22.0    MCA   8.0
3   4    D  23.0    MSC   9.0
4   5    E  20.0    MCA   9.0
5   6    F  21.2    MSC   NaN
```

[ ]: