REINDEXING AND LABEL ALTERATION

PROGRAMS

#Suppose we are having dataframe of following type

	NAME	MARKS
first	AMAN	93
second	VISHAL	82
third	MOHAK	44
fourth	FREYA	93
fifth	RAJESH	74

Now reindex in order to achieve result in index order of ["fourth", "fifth","first", "second", "third"]

```
import pandas as pd
 # Creating the dataframe
df = pd.DataFrame({"NAME":['AMAN','VISHAL','MOHAK','FREYA','RAJESH'],
                   "MARKS":[93, 82, 44, 93, 74]},
                  index =["first", "second", "third", "fourth", "fifth"])
rdf=df.reindex(["fourth", "fifth","first", "second", "third"])
print("After reindexing")
print(rdf)
```

OUTPUT

After reindexing

	NAME	MARKS
fourth	FREYA	93
fifth	RAJESH	74
first	AMAN	93
second	VISHAL	82
third	MOHAK	44

#Suppose we are having dataframe of following type

	NAME	MARKS
first	AMAN	93
second	VISHAL	82
third	MOHAK	44
fourth	FREYA	93
fifth	RAJESH	74

Now reindex in order to achieve result in index order of ["fourth", "fifth","first", **"duos", "trios"**]

What happen when we write wrong index for reindexing

```
import pandas as pd

# Creating the dataframe
df = pd.DataFrame({"NAME":['AMAN','VISHAL','MOHAK','FREYA','RAJESH'],
                   "MARKS":[93, 82, 44, 93, 74]},
                  index =["first", "second", "third", "fourth", "fifth"])
rdf=df.reindex(["fourth", "fifth","first", "duos", "trios"])
print("After reindexing")
print(rdf)
```

OUTPUT

After reindexing

	NAME	MARKS
fourth	FREYA	93.0
fifth	RAJESH	74.0
first	AMAN	93.0
duos	NaN	NaN
trios	NaN	NaN

NOTE – Not a Number(NaN) is placed if wrong index is mentioned

#Suppose we are having dataframe of following type

	NAME	MARKS
first	AMAN	93
second	VISHAL	82
third	MOHAK	44
fourth	FREYA	93
fifth	RAJESH	74

Now reindex on column basis so that MARKS data are shown as first column followed by NAME column

```
import pandas as pd

# Creating the dataframe
df = pd.DataFrame({"NAME":['AMAN','VISHAL','MOHAK','FREYA','RAJESH'],
                   "MARKS":[93, 82, 44, 93, 74]},
                  index =["first", "second", "third", "fourth", "fifth"])
rdf=df.reindex(columns=["MARKS", "NAME"])
print("After reindexing")
print(rdf)
```

OUTPUT

After reindexing

	MARKS	NAME
first	93	AMAN
second	82	VISHAL
third	44	MOHAK
fourth	93	FREYA
fifth	74	RAJESH

#Suppose we are having dataframe of following type

	NAME	MARKS
first	AMAN	93
second	VISHAL	82
third	MOHAK	44
fourth	FREYA	93
fifth	RAJESH	74

Now reindex with column name which does not exist.

```
import pandas as pd

# Creating the dataframe
df = pd.DataFrame({"NAME":['AMAN','VISHAL','MOHAK','FREYA','RAJESH'],
                   "MARKS":[93, 82, 44, 93, 74]},
                  index =["first", "second", "third", "fourth", "fifth"])
rdf=df.reindex(columns=["GRADE", "NAME"])
print("After reindexing")
print(rdf)
```

OUTPUT

After reindexing

	GRADE	NAME
first	NaN	AMAN
second	NaN	VISHAL
third	NaN	MOHAK
fourth	NaN	FREYA
fifth	NaN	RAJESH

NOTE – Not a Number(NaN) is placed under the column,which does not exist

#Suppose we are having dataframe of following type

	NAME	MARKS
first	AMAN	93
second	VISHAL	82
third	MOHAK	44
fourth	FREYA	93
fifth	RAJESH	74

Now reindex with column name which does not exist(GRADE) and NAME and fill the grade as 'A1'

```
import pandas as pd

# Creating the dataframe
df = pd.DataFrame({"NAME":['AMAN','VISHAL','MOHAK','FREYA','RAJESH'],
                   "MARKS":[93, 82, 44, 93, 74]},
                  index =["first", "second", "third", "fourth", "fifth"])
rdf=df.reindex(columns=["GRADE", "NAME"],fill_value='A1')
print("After reindexing")
print(rdf)
```

OUTPUT

After reindexing

	GRADE	NAME
first	A1	AMAN
second	A1	VISHAL
third	A1	MOHAK
fourth	A1	FREYA
fifth	A1	RAJESH

#Suppose we are having dataframe of following type

	BOOK NAME	WRITER
0	Let us c	Y kanitkar
1	Computer Architecture	Morris meno

Now we want to change the column name from BOOK NAME,WRITER to TITLE,AUTHOR

```
import pandas as pd
df = pd.DataFrame(
  [ ( 'Let us c','Y kanitkar'),
    ( 'Computer Architecture','Morris meno')  ]
  ,columns=('BOOK NAME','WRITER')
)
print(df)
df.rename(
  columns={
    'BOOK NAME' : 'TITLE',
    'WRITER' : 'AUTHOR'
  },
  inplace=True
)
print("\n\nafter column heading change")
print(df)
```

OUTPUT

	BOOK NAME	WRITER
0	Let us c	Y kanitkar
1	Computer Architecture	Morris meno

after column heading change

	TITLE	AUTHOR
0	Let us c	Y kanitkar
1	Computer Architecture	Morris meno