Untitled

February 18, 2020

1 Start Python with Ikhtiar Ahmed

```python
[1]: import pandas as pd
     df = pd.read_csv("result_sheet.csv")
```

```python
[2]: df
```

```
[2]:     Roll  Name  Gender  Bangla  Math  English
     0      1     A    Male      99    90       90
     1      2     B    Male      98    99       94
     2      3     C  Female      97    93       99
     3      4     A  Female      96    92       92
     4      5     B  Female      95    91       91
     5      6     C    Male      94    30       90
     6      7     A  Female      93    89       89
     7      8     B    Male      92    88       88
     8      9     C  Female      91    87       87
     9     10     A    Male      90    86       46
     10    11     B    Male      89    85       85
     11    12     C    Male      88    84       84
     12    13     A  Female      87    83       83
     13    14     B  Female      96    82       82
     14    15     C    Male      85    81       81
     15    16     A    Male      84    80       80
     16    17     B    Male      83    79       79
     17    18     C    Male      82    78       78
     18    19     A    Male      81    77       77
     19    20     B    Male      80    76       76
```

```python
[3]: df.head(10)
```

```
[3]:     Roll  Name  Gender  Bangla  Math  English
     0      1     A    Male      99    90       90
     1      2     B    Male      98    99       94
     2      3     C  Female      97    93       99
     3      4     A  Female      96    92       92
```

```
4      5     B    Female        95     91          91
5      6     C      Male        94     30          90
6      7     A    Female        93     89          89
7      8     B      Male        92     88          88
8      9     C    Female        91     87          87
9     10     A      Male        90     86          46
```

[4]: `df.tail(10)`

[4]:
```
       Roll  Name   Gender   Bangla   Math   English
10      11    B       Male       89     85        85
11      12    C       Male       88     84        84
12      13    A     Female       87     83        83
13      14    B     Female       96     82        82
14      15    C       Male       85     81        81
15      16    A       Male       84     80        80
16      17    B       Male       83     79        79
17      18    C       Male       82     78        78
18      19    A       Male       81     77        77
19      20    B       Male       80     76        76
```

[5]: `df.columns`

[5]: `Index(['Roll', 'Name', 'Gender', 'Bangla', 'Math', 'English'], dtype='object')`

[6]: `df["Roll"]`

[6]:
```
0        1
1        2
2        3
3        4
4        5
5        6
6        7
7        8
8        9
9       10
10      11
11      12
12      13
13      14
14      15
15      16
16      17
17      18
18      19
19      20
```

```
Name: Roll, dtype: int64
```

[7]: `df.Gender`

[7]:
```
0         Male
1         Male
2       Female
3       Female
4       Female
5         Male
6       Female
7         Male
8       Female
9         Male
10        Male
11        Male
12      Female
13      Female
14        Male
15        Male
16        Male
17        Male
18        Male
19        Male
Name: Gender, dtype: object
```

[9]: `df[["Roll","Gender","Name"]]`

[9]:
```
     Roll  Gender Name
0       1    Male    A
1       2    Male    B
2       3  Female    C
3       4  Female    A
4       5  Female    B
5       6    Male    C
6       7  Female    A
7       8    Male    B
8       9  Female    C
9      10    Male    A
10     11    Male    B
11     12    Male    C
12     13  Female    A
13     14  Female    B
14     15    Male    C
15     16    Male    A
16     17    Male    B
17     18    Male    C
```

```
18    19    Male    A
19    20    Male    B
```

[11]: `df[df['Gender']=='Male'] #filtering`

[11]:
	Roll	Name	Gender	Bangla	Math	English
0	1	A	Male	99	90	90
1	2	B	Male	98	99	94
5	6	C	Male	94	30	90
7	8	B	Male	92	88	88
9	10	A	Male	90	86	46
10	11	B	Male	89	85	85
11	12	C	Male	88	84	84
14	15	C	Male	85	81	81
15	16	A	Male	84	80	80
16	17	B	Male	83	79	79
17	18	C	Male	82	78	78
18	19	A	Male	81	77	77
19	20	B	Male	80	76	76

[12]: `df[df['Gender']=='Female']`

[12]:
	Roll	Name	Gender	Bangla	Math	English
2	3	C	Female	97	93	99
3	4	A	Female	96	92	92
4	5	B	Female	95	91	91
6	7	A	Female	93	89	89
8	9	C	Female	91	87	87
12	13	A	Female	87	83	83
13	14	B	Female	96	82	82

[13]: `df.iloc[0:5]   #first 5 row show`

[13]:
	Roll	Name	Gender	Bangla	Math	English
0	1	A	Male	99	90	90
1	2	B	Male	98	99	94
2	3	C	Female	97	93	99
3	4	A	Female	96	92	92
4	5	B	Female	95	91	91

[15]:
```python
for index, row in df.iterrows(): # list of data
    print(index,row["Name"])
```

```
0 A
1 B
2 C
3 A
```

```
4  B
5  C
6  A
7  B
8  C
9  A
10 B
11 C
12 A
13 B
14 C
15 A
16 B
17 C
18 A
19 B
```

[18]: `df["Total"] = df["Bangla"]+ df["Math"]+ df["English"]`

[20]: `df`

[20]:

	Roll	Name	Gender	Bangla	Math	English	total	Total
0	1	A	Male	99	90	90	279	279
1	2	B	Male	98	99	94	291	291
2	3	C	Female	97	93	99	289	289
3	4	A	Female	96	92	92	280	280
4	5	B	Female	95	91	91	277	277
5	6	C	Male	94	30	90	214	214
6	7	A	Female	93	89	89	271	271
7	8	B	Male	92	88	88	268	268
8	9	C	Female	91	87	87	265	265
9	10	A	Male	90	86	46	222	222
10	11	B	Male	89	85	85	259	259
11	12	C	Male	88	84	84	256	256
12	13	A	Female	87	83	83	253	253
13	14	B	Female	96	82	82	260	260
14	15	C	Male	85	81	81	247	247
15	16	A	Male	84	80	80	244	244
16	17	B	Male	83	79	79	241	241
17	18	C	Male	82	78	78	238	238
18	19	A	Male	81	77	77	235	235
19	20	B	Male	80	76	76	232	232

[23]: `ndf= df.sort_values("Total", ascending = False) # descending order -->`
      `ascending = True`

```
[24]: ndf["New Roll"] = ndf.index
```

```
[25]: ndf
```

```
[25]:       Roll  Name  Gender  Bangla  Math  English  total  Total  New Roll
      1        2     B    Male      98    99       94    291    291         1
      2        3     C  Female      97    93       99    289    289         2
      3        4     A  Female      96    92       92    280    280         3
      0        1     A    Male      99    90       90    279    279         0
      4        5     B  Female      95    91       91    277    277         4
      6        7     A  Female      93    89       89    271    271         6
      7        8     B    Male      92    88       88    268    268         7
      8        9     C  Female      91    87       87    265    265         8
      13      14     B  Female      96    82       82    260    260        13
      10      11     B    Male      89    85       85    259    259        10
      11      12     C    Male      88    84       84    256    256        11
      12      13     A  Female      87    83       83    253    253        12
      14      15     C    Male      85    81       81    247    247        14
      15      16     A    Male      84    80       80    244    244        15
      16      17     B    Male      83    79       79    241    241        16
      17      18     C    Male      82    78       78    238    238        17
      18      19     A    Male      81    77       77    235    235        18
      19      20     B    Male      80    76       76    232    232        19
      9       10     A    Male      90    86       46    222    222         9
      5        6     C    Male      94    30       90    214    214         5
```

```
[26]: del ndf["New Roll"]
```

```
[27]: del ndf["total"]
```

```
[28]: ndf
```

```
[28]:       Roll  Name  Gender  Bangla  Math  English  Total
      1        2     B    Male      98    99       94    291
      2        3     C  Female      97    93       99    289
      3        4     A  Female      96    92       92    280
      0        1     A    Male      99    90       90    279
      4        5     B  Female      95    91       91    277
      6        7     A  Female      93    89       89    271
      7        8     B    Male      92    88       88    268
      8        9     C  Female      91    87       87    265
      13      14     B  Female      96    82       82    260
      10      11     B    Male      89    85       85    259
      11      12     C    Male      88    84       84    256
      12      13     A  Female      87    83       83    253
      14      15     C    Male      85    81       81    247
      15      16     A    Male      84    80       80    244
```

```
16    17    B    Male    83    79    79    241
17    18    C    Male    82    78    78    238
18    19    A    Male    81    77    77    235
19    20    B    Male    80    76    76    232
9     10    A    Male    90    86    46    222
5      6    C    Male    94    30    90    214
```

[29]: `ndf["New Roll"] = range(1,21)`

[30]: `ndf`

[30]:

	Roll	Name	Gender	Bangla	Math	English	Total	New Roll
1	2	B	Male	98	99	94	291	1
2	3	C	Female	97	93	99	289	2
3	4	A	Female	96	92	92	280	3
0	1	A	Male	99	90	90	279	4
4	5	B	Female	95	91	91	277	5
6	7	A	Female	93	89	89	271	6
7	8	B	Male	92	88	88	268	7
8	9	C	Female	91	87	87	265	8
13	14	B	Female	96	82	82	260	9
10	11	B	Male	89	85	85	259	10
11	12	C	Male	88	84	84	256	11
12	13	A	Female	87	83	83	253	12
14	15	C	Male	85	81	81	247	13
15	16	A	Male	84	80	80	244	14
16	17	B	Male	83	79	79	241	15
17	18	C	Male	82	78	78	238	16
18	19	A	Male	81	77	77	235	17
19	20	B	Male	80	76	76	232	18
9	10	A	Male	90	86	46	222	19
5	6	C	Male	94	30	90	214	20

[31]: `ndf.to_csv("new_result_2020.csv")`

[ ]: