

```
from google.colab import drive
```

```
drive.mount('/content/gdrive')
```

Mounted at /content/gdrive

```
import pandas as pd
```

```
df = pd.read_csv('/content/gdrive/MyDrive/school_scores.csv')
```

```
#Task 1
df
```

	Year	State.Code	State.Name	Total.Math	Total.Test-takers	Total.Verbal	Subjects.Arts/
0	2005	AL	Alabama	559	3985	567	
1	2005	AK	Alaska	519	3996	523	
2	2005	AZ	Arizona	530	18184	526	
3	2005	AR	Arkansas	552	1600	563	
4	2005	CA	California	522	186552	504	
...	...	...	...	...	...	...	
572	2015	VA	Virginia	517	59621	518	
573	2015	WA	Washington	511	44423	502	
574	2015	WV	West Virginia	500	2501	509	
575	2015	WI	Wisconsin	606	2277	591	
576	2015	WY	Wyoming	587	181	588	

577 rows × 99 columns

```
#Task 2--
df.info()
```

```
72 Score Ranges.Between 300 to 400.Verbal.Females 577 non-null int64
73 Score Ranges.Between 300 to 400.Verbal.Males 577 non-null int64
74 Score Ranges.Between 300 to 400.Verbal.Total 577 non-null int64
75 Score Ranges.Between 400 to 500.Math.Females 577 non-null int64
76 Score Ranges.Between 400 to 500.Math.Males 577 non-null int64
77 Score Ranges.Between 400 to 500.Math.Total 577 non-null int64
78 Score Ranges.Between 400 to 600.Verbal.Females 577 non-null int64
79 Score Ranges.Between 400 to 500.Verbal.Males 577 non-null int64
80 Score Ranges.Between 400 to 500.Verbal.Total 577 non-null int64
81 Score Ranges.Between 500 to 600.Math.Females 577 non-null int64
82 Score Ranges.Between 500 to 600.Math.Males 577 non-null int64
83 Score Ranges.Between 500 to 600.Math.Total 577 non-null int64
84 Score Ranges.Between 500 to 600.Verbal.Females 577 non-null int64
85 Score Ranges.Between 500 to 600.Verbal.Males 577 non-null int64
86 Score Ranges.Between 500 to 600.Verbal.Total 577 non-null int64
87 Score Ranges.Between 600 to 700.Math.Females 577 non-null int64
88 Score Ranges.Between 600 to 700.Math.Males 577 non-null int64
89 Score Ranges.Between 600 to 700.Math.Total 577 non-null int64
90 Score Ranges.Between 600 to 700.Verbal.Females 577 non-null int64
91 Score Ranges.Between 600 to 700.Verbal.Males 577 non-null int64
92 Score Ranges.Between 600 to 700.Verbal.Total 577 non-null int64
93 Score Ranges.Between 700 to 800.Math.Females 577 non-null int64
94 Score Ranges.Between 700 to 800.Math.Males 577 non-null int64
95 Score Ranges.Between 700 to 800.Math.Total 577 non-null int64
96 Score Ranges.Between 700 to 800.Verbal.Females 577 non-null int64
97 Score Ranges.Between 700 to 800.Verbal.Males 577 non-null int64
98 Score Ranges.Between 700 to 800.Verbal.Total 577 non-null int64
dtypes: float64(12), int64(85), object(2)
memory usage: 446.4+ KB
```

```
#Task 3--
df.describe(include='all')
```

	Year	State.Code	State.Name	Total.Math	Total.Test-takers	Total.Verbal	Sut
count	577.000000	577	577	577.000000	577.000000	577.000000	
unique	NaN	53	53	NaN	NaN	NaN	
top	NaN	AL	Alabama	NaN	NaN	NaN	
freq	NaN	11	11	NaN	NaN	NaN	
mean	2010.019064	NaN	NaN	535.682842	27914.242634	531.334489	
std	3.169623	NaN	NaN	46.171611	45602.106878	44.318302	
min	2005.000000	NaN	NaN	383.000000	134.000000	401.000000	
25%	2007.000000	NaN	NaN	504.000000	2536.000000	496.000000	
50%	2010.000000	NaN	NaN	527.000000	6468.000000	522.000000	
75%	2013.000000	NaN	NaN	571.000000	35799.000000	572.000000	
max	2015.000000	NaN	NaN	619.000000	241553.000000	612.000000	

11 rows × 99 columns

```
#Task 4--
df.isnull()
```

	Year	State.Code	State.Name	Total.Math	Total.Test-takers	Total.Verbal	Subjects.Arts/Music.Average GPA	Subjects.Arts/Music.Average Years	Subj
0	False	False	False	False	False	False	False	False	
1	False	False	False	False	False	False	False	False	
2	False	False	False	False	False	False	False	False	

```

#Task 5--
print("no null values-\n",df)

573          1584
574           43
575          309
576           13

Score Ranges.Between 700 to 800.Math.Total \
0          448
1          163
2          957
3          132
4         14243
..          ...
572         3427
573         2426
574           73
575         475
576           25

Score Ranges.Between 700 to 800.Verbal.Females \
0          219
1          109
2          412
3           77
4         5011
..          ...
572         1479
573         1067
574           42
575         198
576           15

Score Ranges.Between 700 to 800.Verbal.Males \
0          250
1          115
2          501
3           93
4         4766
..          ...
572         1561
573         1077
574           40
575         225
576           15

Score Ranges.Between 700 to 800.Verbal.Total
0          469
1          224
2          913
3          170
4         9777
..          ...
572         3040
573         2144
574           82
575         423
576           30

[577 rows x 99 columns]

```

