

```
In [6]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

```
In [5]: RO = pd.read_csv("ODI.csv")
```

```
In [7]: RO.head()
```

```
Out[7]:
```

	Unnamed: 0	Year	Innings	Runs	Balls	Outs	Avg	SR	HS	50	100	4s	6s	Dot %
0	0	2007	3	61	74	3	20.3	82.4	52	1	0	3	1	47.3
1	1	2008	28	532	733	21	25.3	72.6	70	3	0	44	3	53.9
2	2	2009	7	102	155	4	25.5	65.8	43	0	0	5	1	52.3
3	3	2010	14	504	586	13	38.8	86.0	114	1	2	34	7	43.9
4	4	2011	16	611	739	11	55.5	82.7	95	6	0	40	9	45.6

```
In [4]: RO.tail()
```

```
Out[4]:
```

	Unnamed: 0	Year	Innings	Runs	Balls	Outs	Avg	SR	HS	50	100	4s	6s	Dot %
11	11	2018	19	1030	1029	14	73.6	100.1	162	3	5	104	39	52.4
12	12	2019	27	1490	1657	26	57.3	89.9	159	6	7	146	36	53.0
13	13	2020	3	171	187	3	57.0	91.4	119	0	1	16	6	54.5
14	14	2021	3	90	104	3	30.0	86.5	37	0	0	15	0	56.7
15	15	Total	220	9205	10354	188	49.0	88.9	264	43	29	834	244	52.1

```
In [5]: RO.shape
```

```
Out[5]: (16, 14)
```

```
In [6]: RO.describe()
```

```
Out[6]:
```

	Unnamed: 0	Innings	Runs	Balls	Outs	Avg	SR
count	16.000000	16.000000	16.000000	16.000000	16.000000	16.000000	16.000000
mean	7.500000	27.500000	1150.625000	1294.250000	23.500000	45.94375	86.156250
std	4.760952	52.008974	2194.519534	2464.542135	44.447722	18.38318	10.585334
min	0.000000	3.000000	61.000000	74.000000	3.000000	12.900000	65.800000
25%	3.750000	9.250000	170.250000	235.000000	7.750000	28.87500	82.000000
50%	7.500000	15.000000	571.000000	673.000000	13.000000	51.45000	87.700000
75%	11.250000	22.500000	1071.500000	1096.750000	18.750000	57.07500	94.550000

	Unnamed: 0	Innings	Runs	Balls	Outs	Avg	SR
max	15.000000	220.000000	9205.000000	10354.000000	188.000000	73.60000	100.100000

In [7]:

```
RO.columns
```

Out[7]:

```
Index(['Unnamed: 0', 'Year', 'Innings', 'Runs', 'Balls', 'Outs', 'Avg', 'SR',
      'HS', '50', '100', '4s', '6s', 'Dot %'],
      dtype='object')
```

In [8]:

```
RO.isnull()
```

Out[8]:

	Unnamed: 0	Year	Innings	Runs	Balls	Outs	Avg	SR	HS	50	100	4s	6s	Dot %
0	False	False	False	False	False	False	False	False	False	False	False	False	False	False
1	False	False	False	False	False	False	False	False	False	False	False	False	False	False
2	False	False	False	False	False	False	False	False	False	False	False	False	False	False
3	False	False	False	False	False	False	False	False	False	False	False	False	False	False
4	False	False	False	False	False	False	False	False	False	False	False	False	False	False
5	False	False	False	False	False	False	False	False	False	False	False	False	False	False
6	False	False	False	False	False	False	False	False	False	False	False	False	False	False
7	False	False	False	False	False	False	False	False	False	False	False	False	False	False
8	False	False	False	False	False	False	False	False	False	False	False	False	False	False
9	False	False	False	False	False	False	False	False	False	False	False	False	False	False
10	False	False	False	False	False	False	False	False	False	False	False	False	False	False
11	False	False	False	False	False	False	False	False	False	False	False	False	False	False
12	False	False	False	False	False	False	False	False	False	False	False	False	False	False
13	False	False	False	False	False	False	False	False	False	False	False	False	False	False
14	False	False	False	False	False	False	False	False	False	False	False	False	False	False
15	False	False	False	False	False	False	False	False	False	False	False	False	False	False

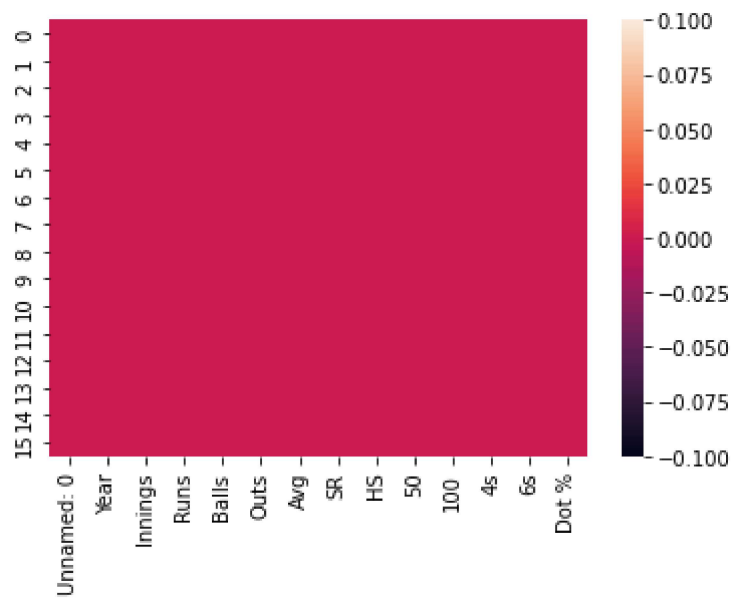
HEAT MAP

In [9]:

```
sns.heatmap(RO.isnull())
```

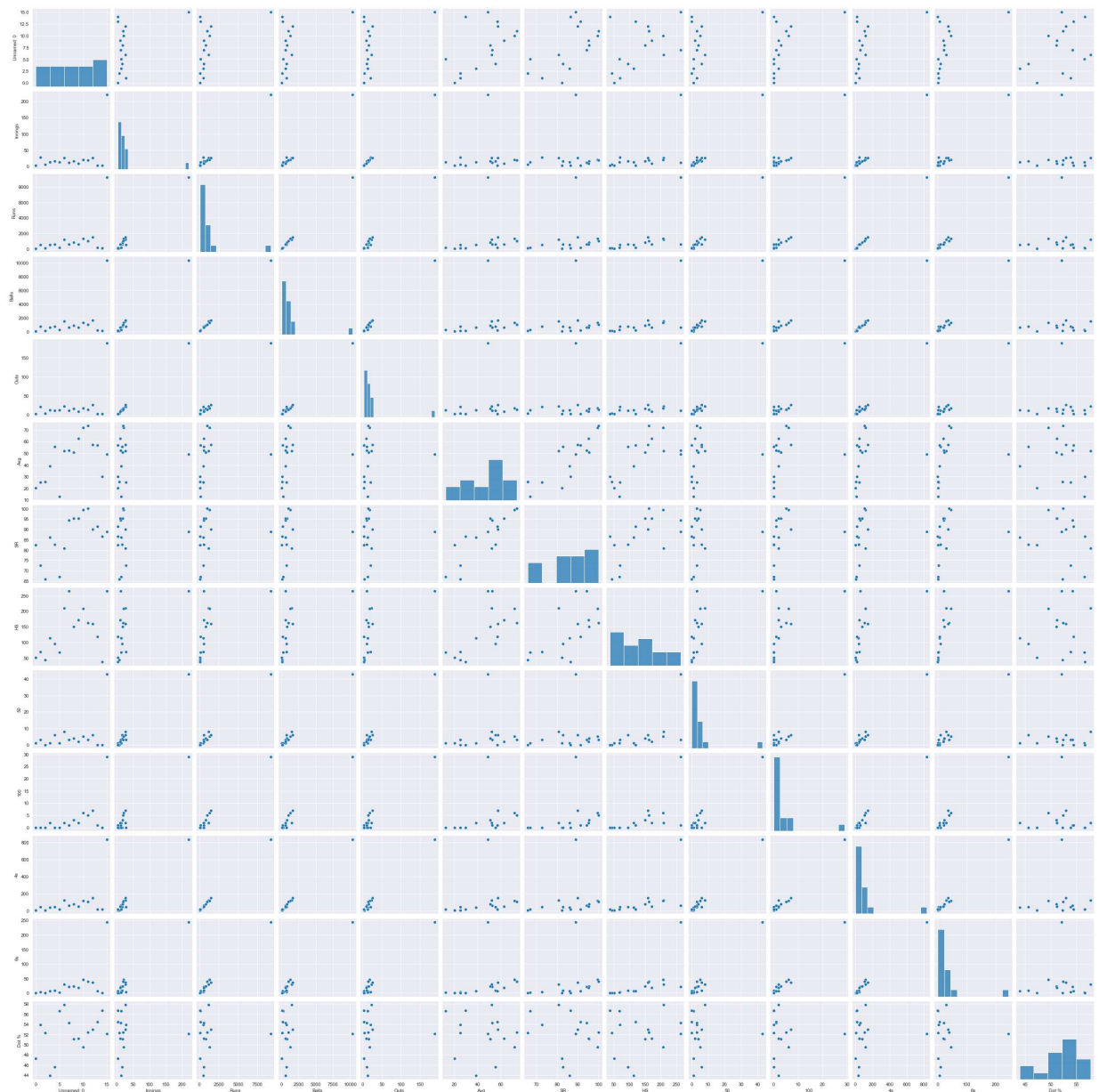
Out[9]:

```
<AxesSubplot:>
```



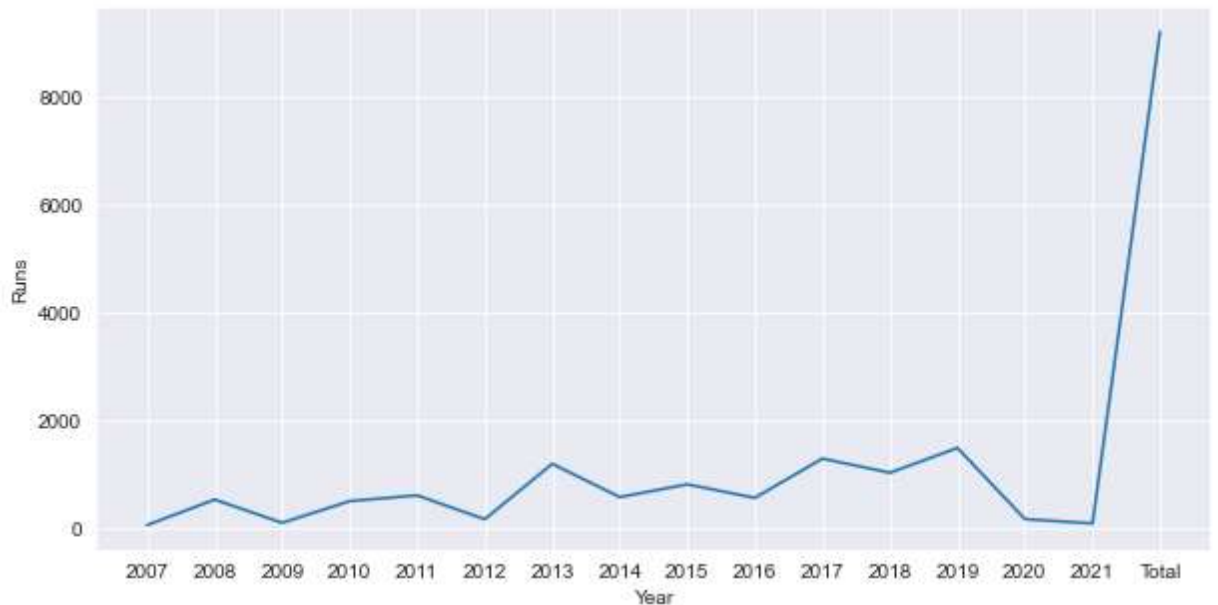
```
In [18]: sns.countplot(R0)
```

```
Out[18]: <seaborn.axisgrid.PairGrid at 0x1c885c8be50>
```



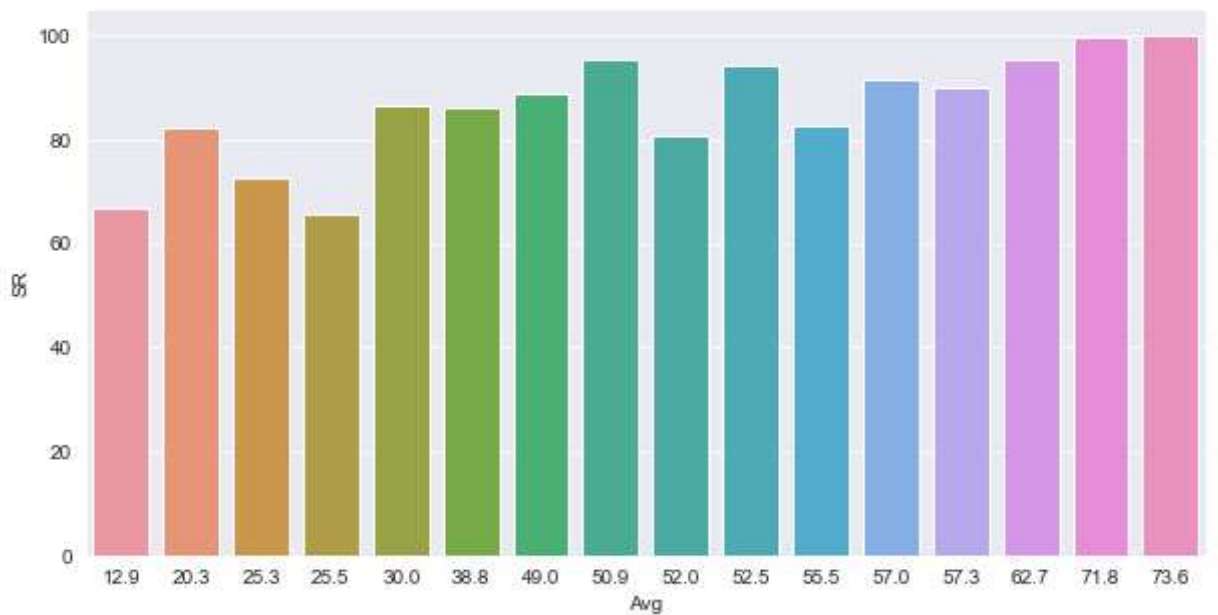
LINE PLOT

```
In [21]: plt.figure(figsize=(10,5))
sns.lineplot(data=R0,x='Year',y='Runs')
plt.show()
```



BAR PLOT

```
In [22]: plt.figure(figsize=(10,5))
sns.barplot(data=R0, x='Avg',y='SR')
plt.show()
```



DATA CLEANING

```
In [8]: R0.drop('Avg',axis=1,inplace=True)
```

In [9]: RO.head(88)

Out[9]:

	Unnamed: 0	Year	Innings	Runs	Balls	Outs	SR	HS	50	100	4s	6s	Dot %
0	0	2007	3	61	74	3	82.4	52	1	0	3	1	47.3
1	1	2008	28	532	733	21	72.6	70	3	0	44	3	53.9
2	2	2009	7	102	155	4	65.8	43	0	0	5	1	52.3
3	3	2010	14	504	586	13	86.0	114	1	2	34	7	43.9
4	4	2011	16	611	739	11	82.7	95	6	0	40	9	45.6
5	5	2012	13	168	251	13	66.9	68	1	0	12	2	56.6
6	6	2013	27	1196	1480	23	80.8	209	8	2	119	30	57.8
7	7	2014	12	578	613	11	94.3	264	3	1	58	22	54.3
8	8	2015	17	815	854	16	95.4	150	4	3	76	23	51.1
9	9	2016	10	564	592	9	95.3	171	2	2	46	19	51.2
10	10	2017	21	1293	1300	18	99.5	208	5	6	116	46	49.5
11	11	2018	19	1030	1029	14	100.1	162	3	5	104	39	52.4
12	12	2019	27	1490	1657	26	89.9	159	6	7	146	36	53.0
13	13	2020	3	171	187	3	91.4	119	0	1	16	6	54.5
14	14	2021	3	90	104	3	86.5	37	0	0	15	0	56.7
15	15	Total	220	9205	10354	188	88.9	264	43	29	834	244	52.1

In []: