

▾ **MS dhoni Performance Analysis using Python:**

project by Smit Bhavsar



Indented block

```
import pandas as pd
import numpy as np
import plotly.express as px
import plotly.graph_objects as go
```

```
data = pd.read_csv("ms dhoni data.csv")
data
```

	Innings	Date	M/Inns	Versus	Ground	Runs	B/F	SR	How Dismissed	4S	6S	Unnamed: 11	Unnamed: 12	Unnamed: 13	Unnamed: 14
0	1	12/23/2004	1st	Bangladesh	MA Aziz Stadium	0	1	0.00	run out	0	0	NaN	NaN	NaN	NaN
1	2	12/26/2004	2nd	Bangladesh	Bangabandhu National Stadium	12	11	109.09	caught	2	0	NaN	NaN	NaN	NaN
2	3	12/27/2004	1st	Bangladesh	Bangabandhu National Stadium	7	2	350.00	not out	0	1	NaN	NaN	NaN	NaN
3	4	4/2/2005	1st	Pakistan	Nehru Stadium (Kochi)	3	7	42.86	caught	0	0	NaN	NaN	NaN	NaN
4	5	4/5/2005	1st	Pakistan	Dr YS Rajasekhara Reddy Cricket Stadium	148	123	120.33	caught	15	4	NaN	NaN	NaN	NaN
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
291	293	1/24/2019	1st	Afghanistan	The Rose Bowl	28	52	53.85	stumped	0	0	NaN	NaN	NaN	NaN
292	294	1/25/2019	1st	West Indies	Old Trafford	56	61	91.80	not out	3	1	NaN	NaN	NaN	NaN
293	295	1/26/2019	2nd	England	Edgbaston	42	31	135.48	not out	3	1	NaN	NaN	NaN	NaN
294	296	1/27/2019	1st	Bangladesh	Edgbaston	35	33	106.06	caught	4	0	NaN	NaN	NaN	NaN
295	297	1/29/2019	2nd	New Zealand	Old Trafford	50	72	69.44	run out	4	1	NaN	NaN	NaN	NaN

296 rows × 20 columns



```
data.isnull().sum()
```

```
Innings      0
Date          0
M/Inns       0
Versus        0
Ground        0
Runs          0
B/F           0
SR            0
How Dismissed 0
4S            0
6S            0
Unnamed: 11   296
Unnamed: 12   296
Unnamed: 13   296
Unnamed: 14   296
Unnamed: 15   296
Unnamed: 16   296
Unnamed: 17   296
Unnamed: 18   296
Unnamed: 19   295
dtype: int64
```

```
data.dropna()
```

Innings	Date	M/Inns	Versus	Ground	Runs	B/F	SR	How Dismissed	4S	6S	Unnamed: 11	Unnamed: 12	Unnamed: 13	Unnamed: 14	Unnamed: 15	Unnamed: 16
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```
# Total Runs Between 12/23/2004 - 1/29/2019
data["Runs"].sum()
```

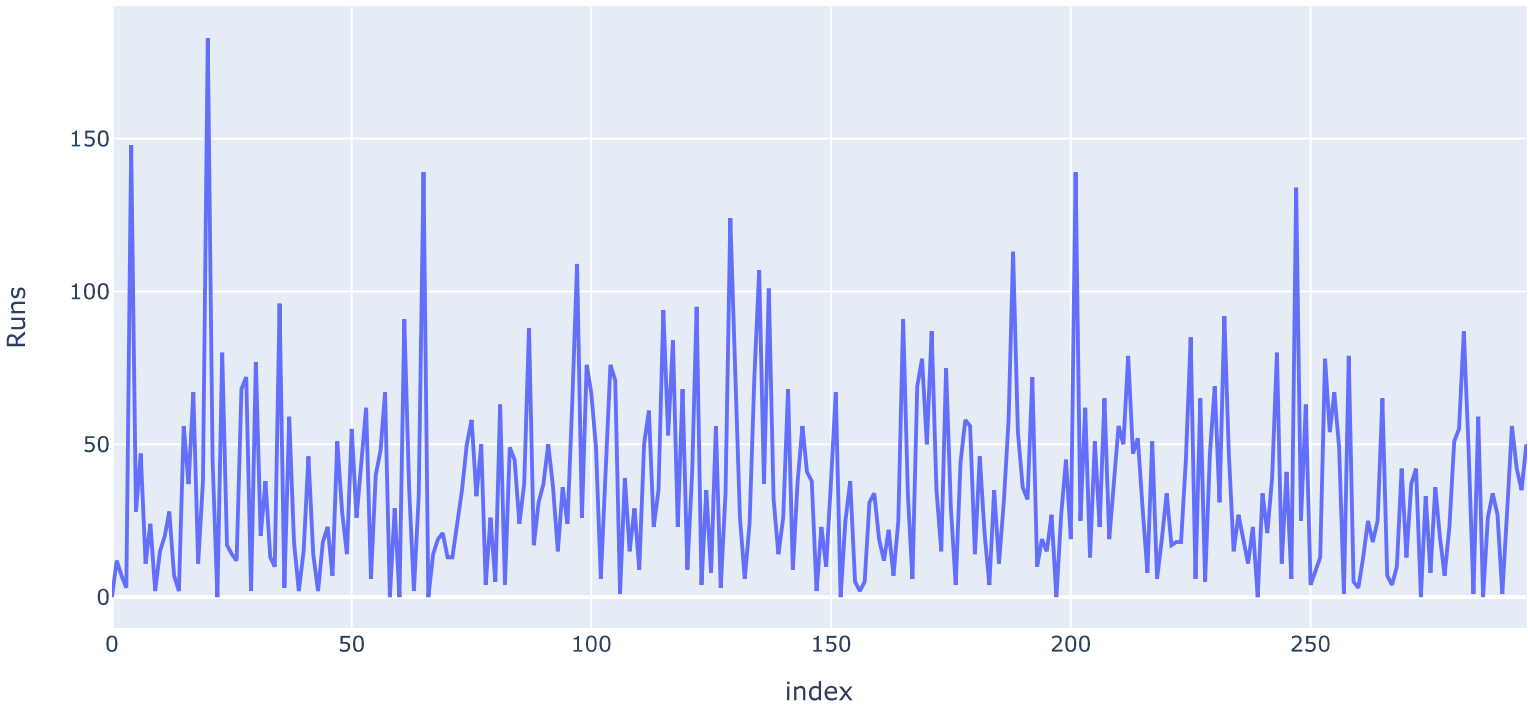
10686

```
# Total Runs Between 12/23/2004 - 1/29/2019
data["Runs"].mean()
```

36.101351351351354

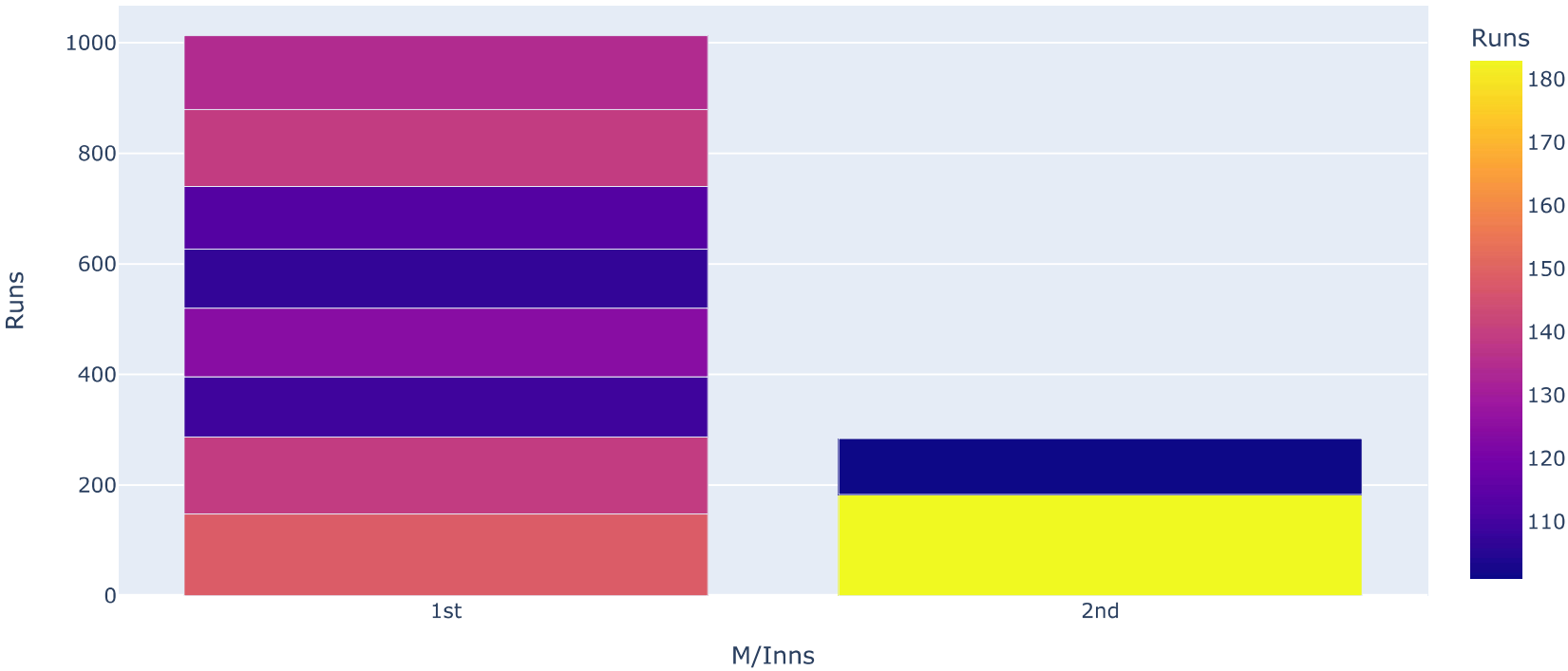
```
matches = data.index
figure = px.line(data, x=matches, y="Runs",
                 title='Runs Scored by ms dhoni between 12/23/2004 - 1/29/2019')
figure.show()
```

Runs Scored by ms dhoni between 12/23/2004 - 1/29/2019



```
centuries = data.query("Runs >= 100")
figure = px.bar(centuries, x=centuries["M/Inns"], y = centuries["Runs"],
                color = centuries["Runs"],
                title="Centuries By ms dhoni in First Innings Vs. Second Innings")
figure.show()
```

Centuries By ms dhoni in First Innings Vs. Second Innings

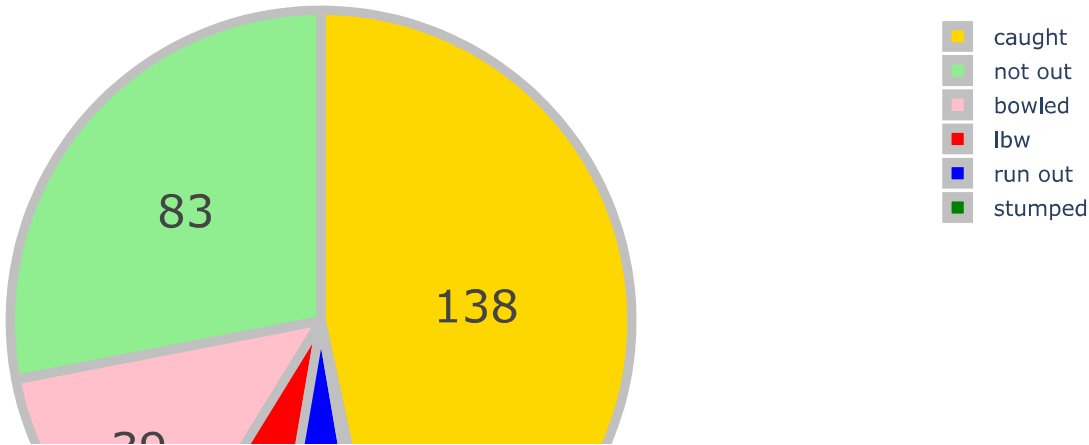


```
dismissal = data["How Dismissed"].value_counts()
label = dismissal.index
counts = dismissal.values
colors = ['gold','lightgreen', "pink", "red", "blue", "green", "orange"]

fig = go.Figure(data=[go.Pie(labels=label, values=counts)])
fig.update_layout(title_text='Dismissals of ms dhoni')
fig.update_traces(hoverinfo='label+percent', textinfo='value', textfont_size=25,
                  marker=dict(colors=colors, line=dict(color='silver', width=5)))
fig.show()
```

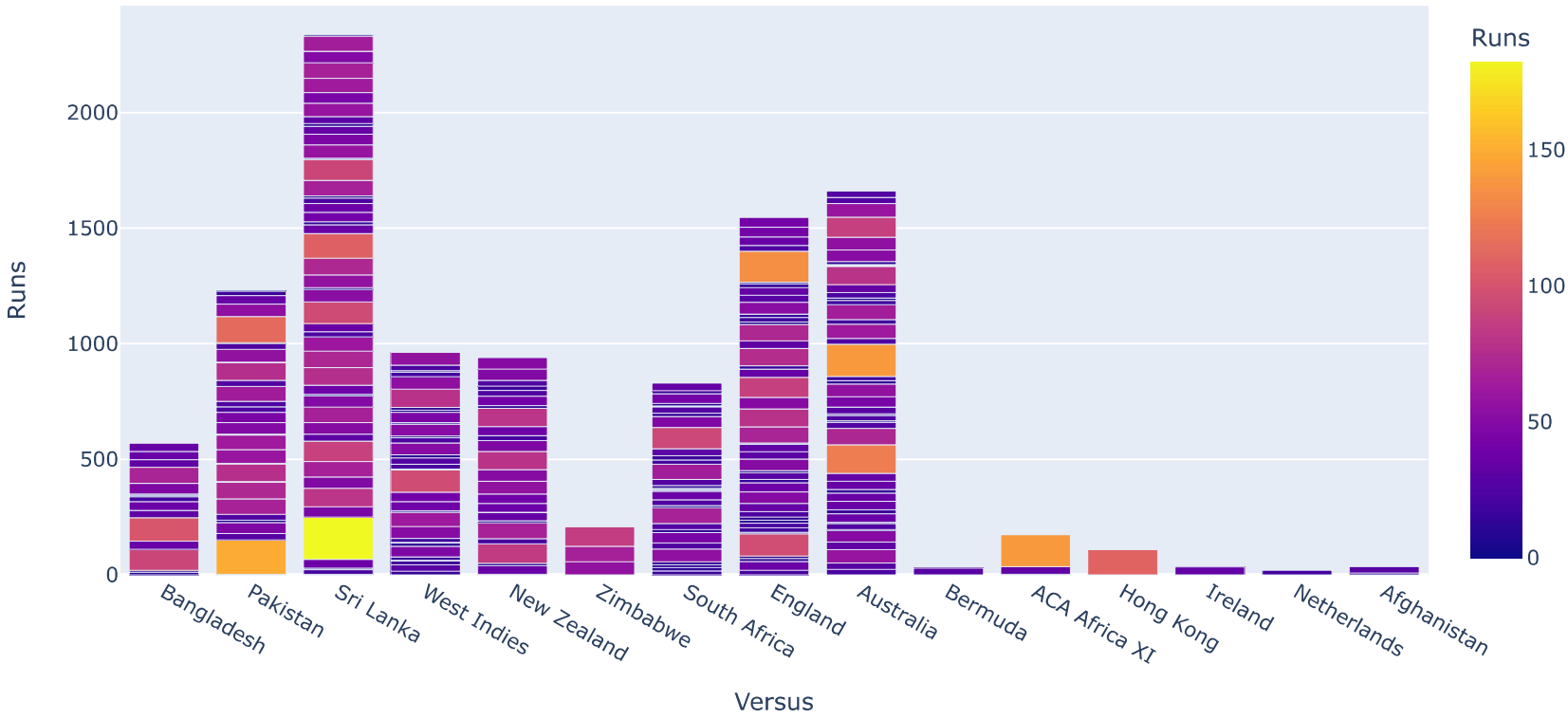


Dismissals of ms dhoni



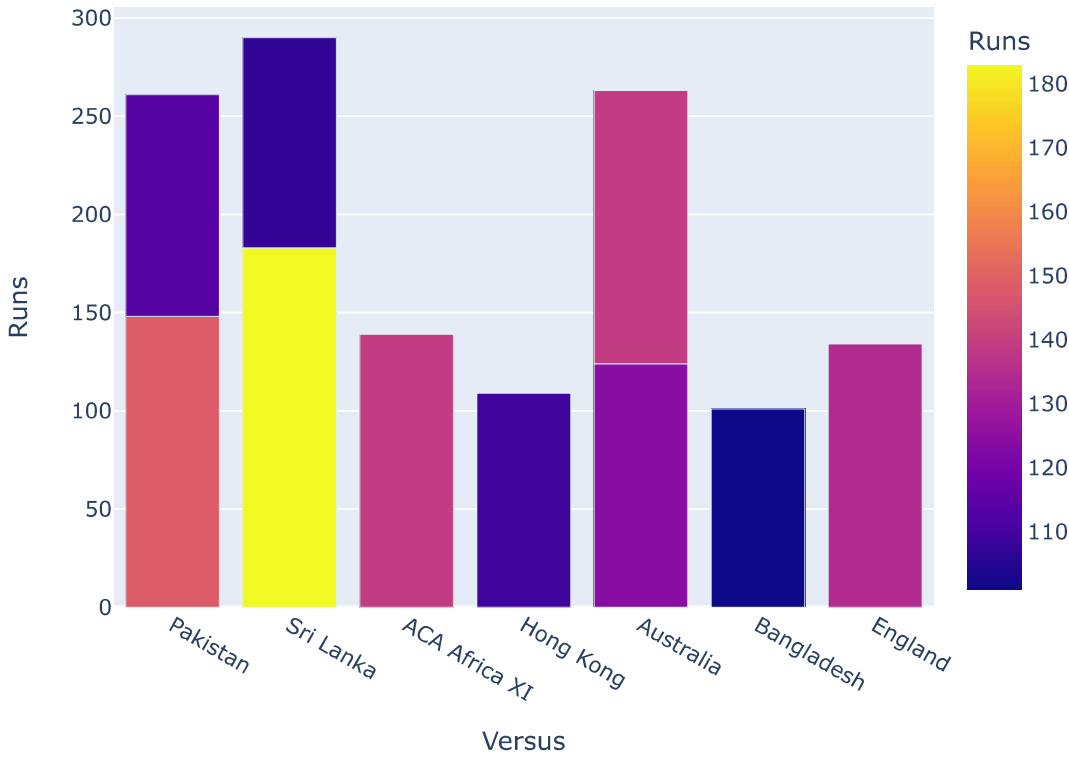
```
figure = px.bar(data, x=data["Versus"], y = data["Runs"], color = data["Runs"],
                title="Most Runs Against Teams")
figure.show()
```

Most Runs Against Teams



```
figure = px.bar(centuries, x=centuries["Versus"], y = centuries["Runs"],
                color = centuries["Runs"],
                title="Most Centuries Against Teams")
figure.show()
```

Most Centuries Against Teams

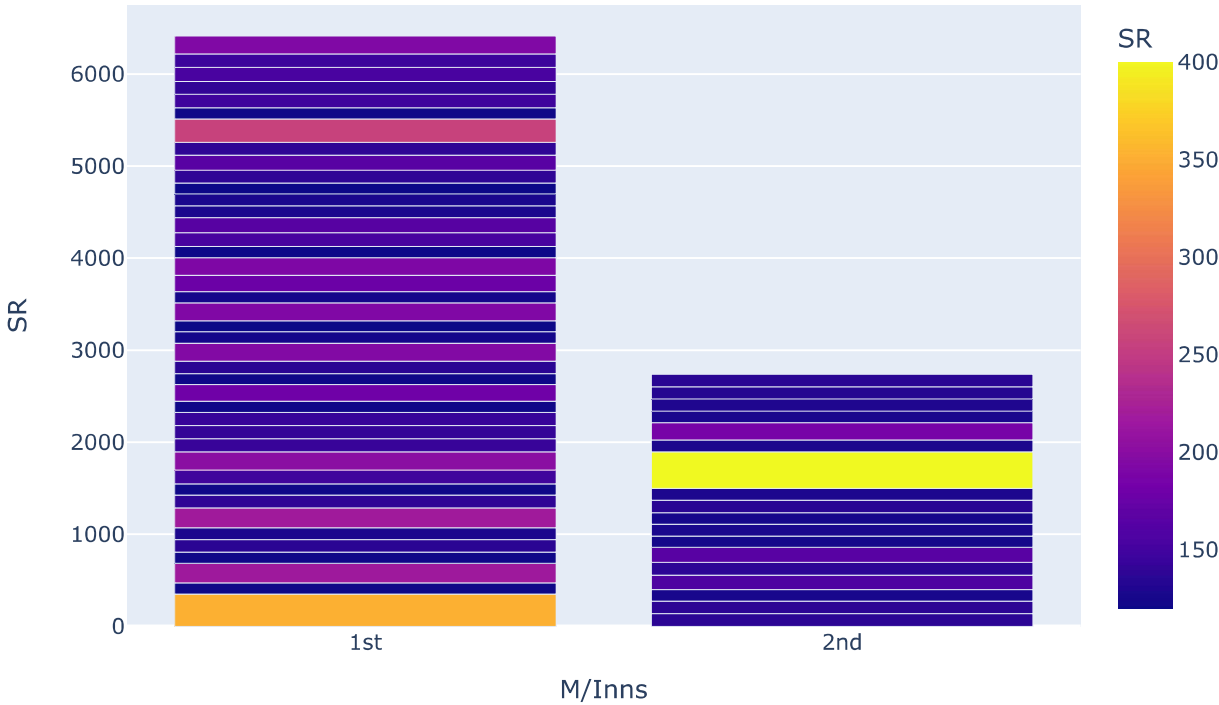


```
strike_rate = data.query("SR    >= 120")
print(strike_rate)
```

	Innings	Date	M/Inns	Versus \
2	3	12/27/2004	1st	Bangladesh
4	5	4/5/2005	1st	Pakistan
10	11	7/31/2005	2nd	West Indies
12	13	8/7/2005	1st	West Indies
15	16	8/29/2005	1st	Zimbabwe
16	17	9/2/2005	2nd	New Zealand
19	20	10/25/2005	1st	Sri Lanka
20	21	10/31/2005	2nd	Sri Lanka
27	28	2/6/2006	1st	Pakistan
28	29	2/13/2006	2nd	Pakistan
30	31	2/19/2006	2nd	Pakistan
33	34	4/3/2006	1st	England
38	39	5/18/2006	2nd	West Indies
44	45	9/20/2006	1st	West Indies
48	49	10/29/2006	1st	Australia
51	52	11/29/2006	2nd	South Africa
53	54	1/21/2007	1st	West Indies
55	56	1/31/2007	1st	West Indies
65	66	6/10/2007	1st	ACA Africa XI
67	68	7/1/2007	2nd	South Africa
72	73	9/2/2007	1st	England
77	78	10/8/2007	1st	Australia
93	94	3/2/2008	2nd	Australia
107	108	11/14/2008	1st	England
110	111	11/23/2008	1st	England
118	119	3/6/2009	1st	New Zealand
123	124	7/3/2009	2nd	West Indies
134	135	12/15/2009	1st	Sri Lanka
141	142	2/24/2010	1st	South Africa
142	143	2/27/2010	2nd	South Africa
158	159	2/27/2011	1st	England
167	168	9/6/2011	1st	England
170	171	9/16/2011	1st	England
171	172	10/14/2011	1st	England
181	182	3/13/2012	1st	Sri Lanka
182	183	3/16/2012	1st	Bangladesh
183	184	3/18/2012	2nd	Pakistan
184	185	7/21/2012	1st	Sri Lanka
187	188	8/4/2012	1st	Sri Lanka
191	192	1/11/2013	2nd	England
203	204	11/2/2013	1st	Australia
204	205	11/21/2013	2nd	West Indies
205	206	11/24/2013	1st	West Indies
210	211	1/22/2014	2nd	New Zealand
217	218	10/11/2014	1st	West Indies
218	219	10/17/2014	1st	West Indies
222	223	2/15/2015	1st	Pakistan
223	224	2/22/2015	1st	South Africa
236	237	1/12/2016	1st	Australia
238	239	1/17/2016	1st	Australia
249	250	6/8/2017	1st	Sri Lanka
261	263	9/28/2017	2nd	Australia
264	266	10/29/2017	1st	New Zealand
266	268	12/13/2017	1st	Sri Lanka
267	269	2/1/2018	2nd	South Africa
279	281	10/29/2018	1st	West Indies
283	285	1/16/2019	1st	New Zealand

```
figure = px.bar(strike_rate, x = strike_rate["M/Inns"],
                y = strike_rate["SR"],
                color = strike_rate["SR"],
                title="ms dhoni's High Strike Rates in First Innings Vs. Second Innings")
figure.show()
```

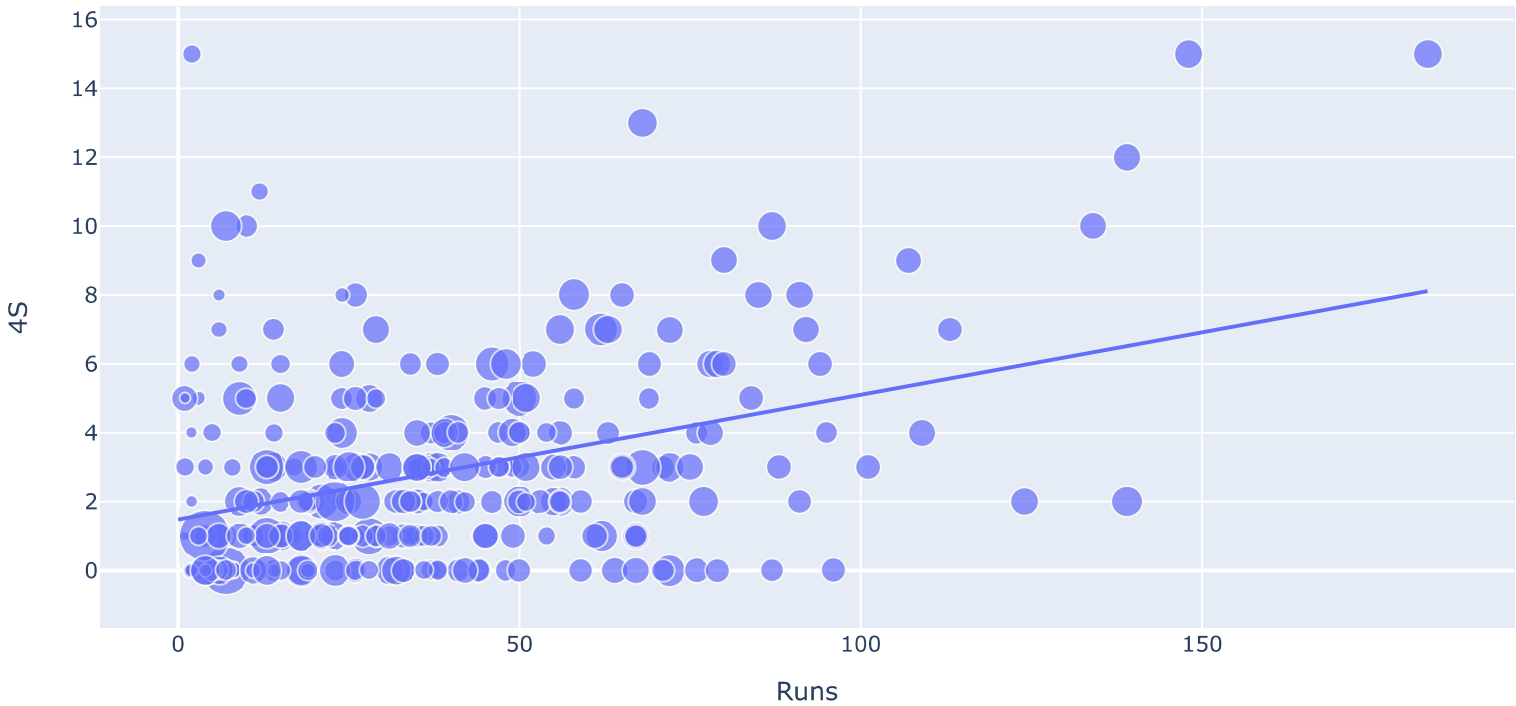
ms dhoni's High Strike Rates in First Innings Vs. Second Innings



```
figure = px.scatter(data_frame = data, x="Runs",
                    y="4S", size="SR", trendline="ols",
                    title="Relationship Between Runs Scored and Fours")

figure.show()
```

Relationship Between Runs Scored and Fours



```
figure = px.scatter(data_frame = data, x="Runs",
                    y="6S", size="SR", trendline="ols",
                    title= "Relationship Between Runs Scored and Sixes")

figure.show()
```

Relationship Between Runs Scored and Sixes

