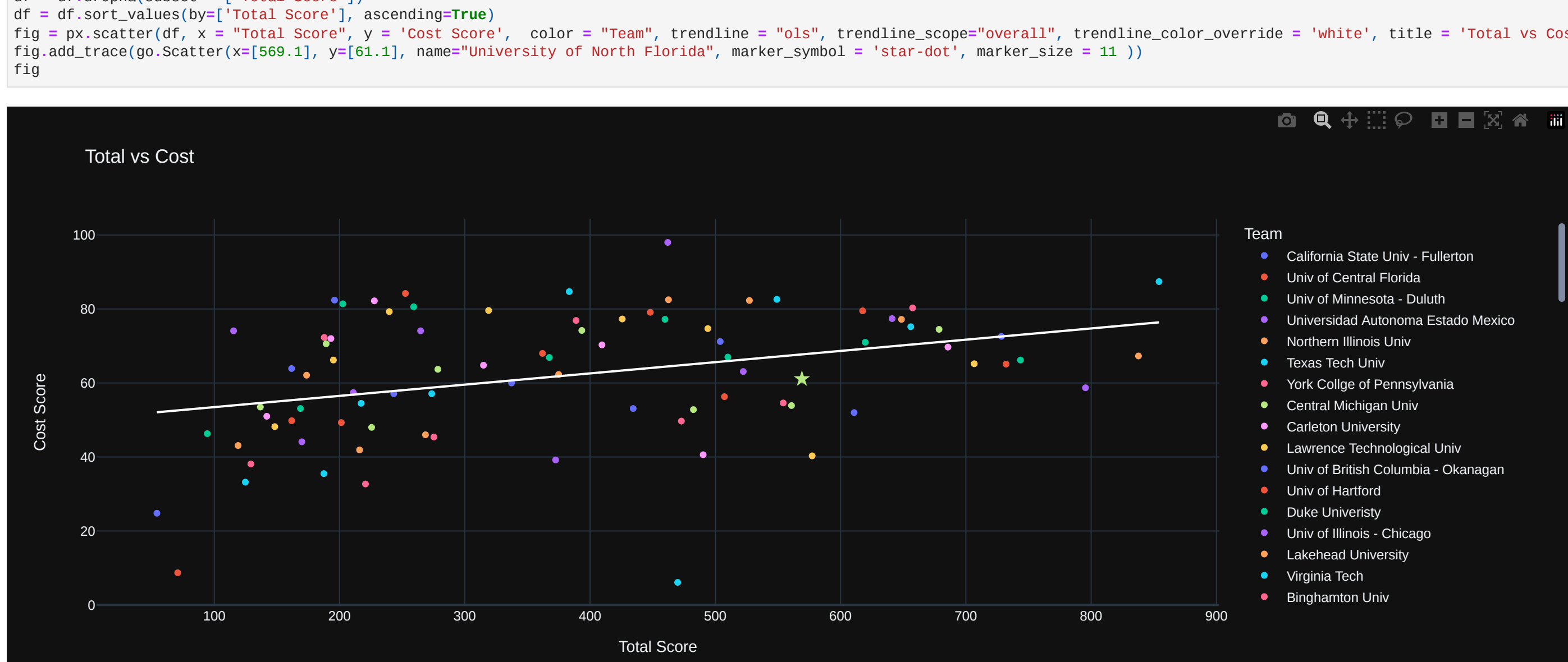


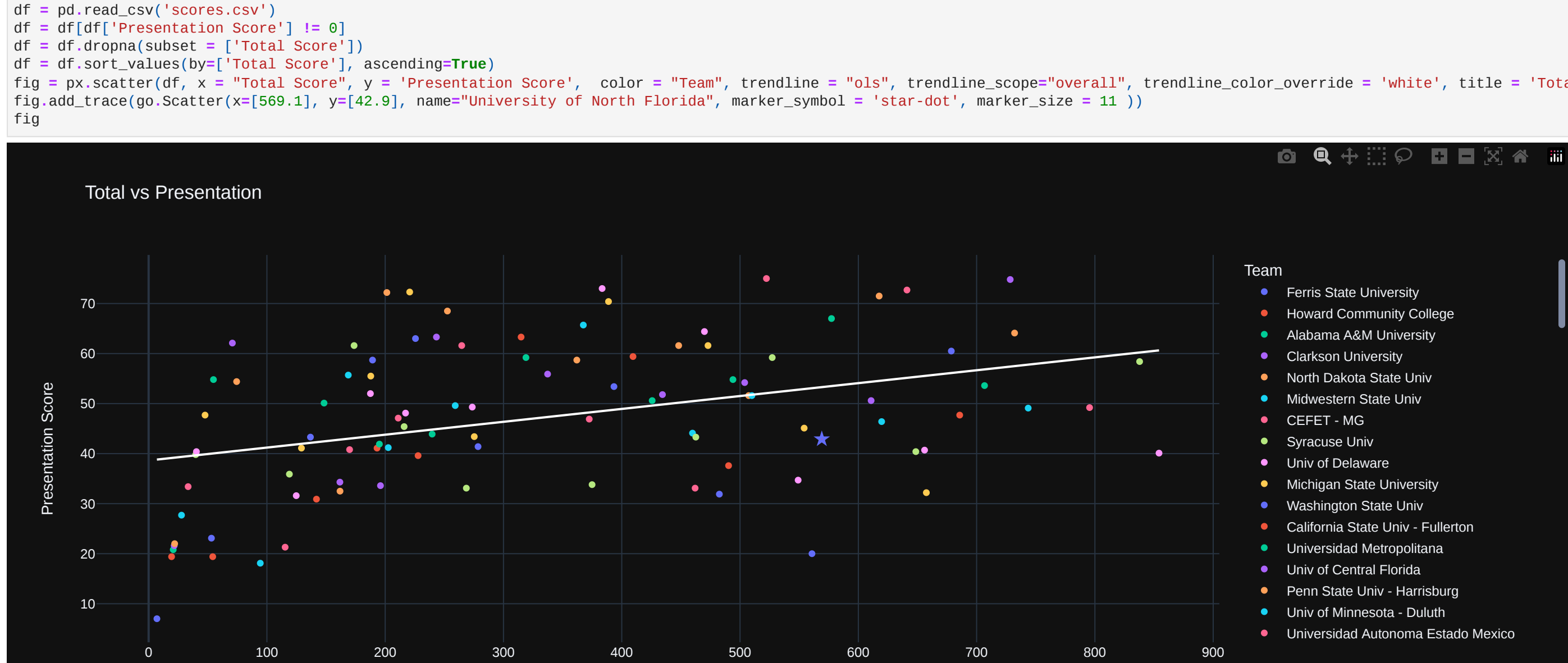
```
In [1]: import pandas as pd
import plotly.express as px
import plotly.graph_objects as go
df = pd.read_csv('scores.csv')
df.head(18)
```

	Place	Car Num	Team	Penalty	Cost Score	Presentation Score	Design Score	Acceleration Score	Skid Pad Score	Autocross Score	Endurance Score	Efficiency Score	Total Score
0	1	44	Univ of Illinois - Urbana Champaign	0	87.4	40.1	150	76.4	48.2	121.0	275.0	56.1	854.2
1	2	119	Villanova Univ	0	67.3	58.4	115	94.8	53.1	111.1	238.1	100.0	837.8
2	3	67	Univ of Florida	0	58.7	49.2	135	100.0	40.7	123.4	229.7	58.8	795.5
3	4	54	Kettering Univ	0	66.2	49.1	100	85.6	45.4	121.7	205.0	70.6	743.6
4	5	96	University of Alabama - Tuscaloosa	0	65.1	64.1	100	85.2	59.2	111.7	184.9	61.9	732.1
5	6	52	Purdue Univ - W. Lafayette	0	72.6	74.8	135	59.9	66.2	109.5	146.0	64.4	728.4
6	7	68	Louisiana State Univ	0	65.2	53.6	80	77.6	70.8	117.7	184.9	57.0	706.7
7	8	115	Univ of Akron	0	69.7	47.7	115	51.5	30.9	94.9	211.8	64.1	685.7
8	9	48	North Carolina State Univ - Raleigh	0	74.5	60.5	105	73.3	57.1	57.4	190.8	60.1	678.6
9	10	104	Univ of Connecticut	0	80.3	32.2	100	0.0	40.3	123.2	233.3	48.3	657.5
10	11	55	Oklahoma State Univ	0	75.2	40.7	80	76.5	33.3	90.4	173.0	86.8	656.0
11	12	65	Univ of Nebraska - Lincoln	0	77.2	40.4	100	50.2	44.0	100.6	189.3	46.8	648.6
12	13	106	Univ of Waterloo	0	77.4	72.7	100	60.9	23.0	99.9	134.3	73.0	641.1
13	14	83	Hope College	0	71.0	46.4	60	61.9	48.0	79.3	187.8	65.2	619.7
14	15	146	Technische Universitat Berlin	0	79.5	71.5	148	36.2	75.0	123.5	7.0	76.9	617.6
15	16	95	Saginaw Valley State Univ	0	52.0	50.6	70	68.9	45.9	103.2	173.7	46.5	610.8
16	17	63	Univ of Kansas - Lawrence	0	40.3	67.0	80	55.9	8.0	95.4	187.5	43.2	577.3
17	18	150	Univ of North Florida	0	61.1	42.9	80	37.8	54.8	87.8	155.1	49.7	569.1

```
In [3]: df = df[df[['Cost Score']] != 0]
df = df.dropna(subset = ['Total Score'])
df = df.sort_values(by=['Total Score'], ascending=True)
fig = px.scatter(df, x = "Total Score", y = "Cost Score", color = "Team", trendline = "ols", trendline_scope="overall", trendline_color_override = 'white', title = 'Total vs Cost',
fig.add_trace(go.Scatter(x=[569.1], y=[61.1], name="University of North Florida", marker_symbol = 'star-dot', marker_size = 11 ))
fig
```



```
In [4]: df = pd.read_csv('scores.csv')
df = df[df[['Presentation Score']] != 0]
df = df.dropna(subset = ['Total Score'])
df = df.sort_values(by=['Total Score'], ascending=True)
fig = px.scatter(df, x = "Total Score", y = "Presentation Score", color = "Team", trendline = "ols", trendline_scope="overall", trendline_color_override = 'white', title = 'Total vs Presentation',
fig.add_trace(go.Scatter(x=[569.1], y=[42.9], name="University of North Florida", marker_symbol = 'star-dot', marker_size = 11 ))
fig
```



```
In [5]: df = pd.read_csv('scores.csv')
df = df[df[['Design Score']] != 0]
df = df.dropna(subset = ['Total Score'])
df = df.sort_values(by=['Total Score'], ascending=True)
fig = px.scatter(df, x = "Total Score", y = "Design Score", color = "Team", trendline = "ols", trendline_scope="overall", trendline_color_override = 'white', title = 'Total vs Design',
fig.add_trace(go.Scatter(x=[569.1], y=[89.8], name="University of North Florida", marker_symbol = 'star-dot', marker_size = 11 ))
fig
```



```
In [6]: df = pd.read_csv('scores.csv')
df = df[df[['Acceleration Score']] != 0]
df = df.dropna(subset = ['Total Score'])
df = df.sort_values(by=['Total Score'], ascending=True)
fig = px.scatter(df, x = "Total Score", y = "Acceleration Score", color = "Team", trendline = "ols", trendline_scope="overall", trendline_color_override = 'white', title = 'Total vs Acceleration',
fig.add_trace(go.Scatter(x=[569.1], y=[37.8], name="University of North Florida", marker_symbol = 'star-dot', marker_size = 11 ))
fig
```



```
In [7]: df = pd.read_csv('scores.csv')
df = df[df[['Skid Pad Score']] != 0]
df = df.dropna(subset = ['Total Score'])
df = df.sort_values(by=['Total Score'], ascending=True)
fig = px.scatter(df, x = "Total Score", y = "Skid Pad Score", color = "Team", trendline = "ols", trendline_scope="overall", trendline_color_override = 'white', title = 'Total vs Skid Pad',
fig.add_trace(go.Scatter(x=[569.1], y=[54.8], name="University of North Florida", marker_symbol = 'star-dot', marker_size = 11 ))
fig
```



```
In [8]: df = pd.read_csv('scores.csv')
df = df[df[['Autocross Score']] != 0]
df = df.dropna(subset = ['Total Score'])
df = df.sort_values(by=['Total Score'], ascending=True)
fig = px.scatter(df, x = "Total Score", y = "Autocross Score", color = "Team", trendline = "ols", trendline_scope="overall", trendline_color_override = 'white', title = 'Total vs Autocross',
fig.add_trace(go.Scatter(x=[569.1], y=[87.8], name="University of North Florida", marker_symbol = 'star-dot', marker_size = 11 ))
fig
```



```
In [9]: df = pd.read_csv('scores.csv')
df = df[df[['Endurance Score']] != 0]
df = df.dropna(subset = ['Total Score'])
df = df.sort_values(by=['Total Score'], ascending=True)
fig = px.scatter(df, x = "Total Score", y = "Endurance Score", color = "Team", trendline = "ols", trendline_scope="overall", trendline_color_override = 'white', title = 'Total vs Endurance',
fig.add_trace(go.Scatter(x=[569.1], y=[155.1], name="University of North Florida", marker_symbol = 'star-dot', marker_size = 11 ))
fig
```



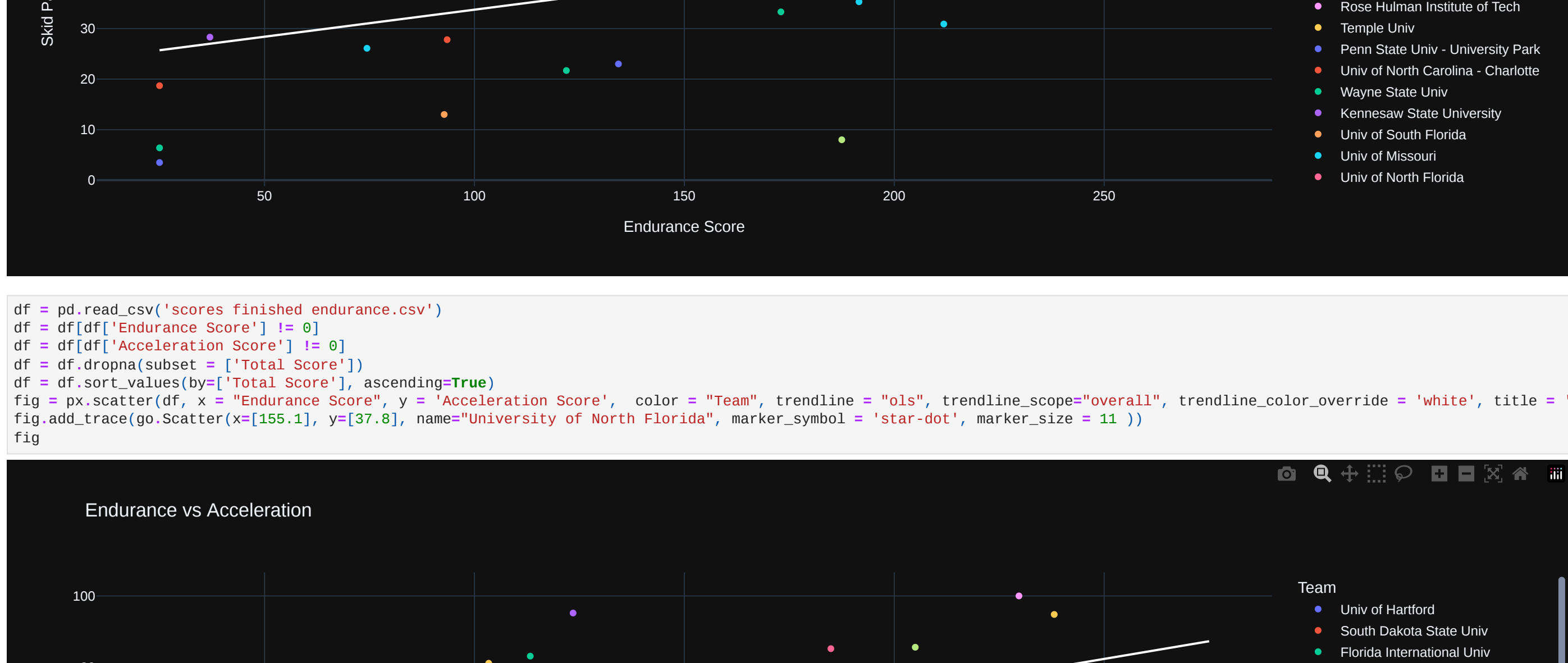
```
In [10]: df = pd.read_csv('scores finished endurance.csv')
df = df[df[['Endurance Score']] != 0]
df = df.dropna(subset = ['Total Score'])
df = df.sort_values(by=['Total Score'], ascending=True)
fig = px.scatter(df, x = "Endurance Score", y = "Acceleration Score", color = "Team", trendline = "ols", trendline_scope="overall", trendline_color_override = 'white', title = 'Endurance vs Acceleration',
fig.add_trace(go.Scatter(x=[155.1], y=[37.8], name="University of North Florida", marker_symbol = 'star-dot', marker_size = 11 ))
fig
```



```
In [11]: df = pd.read_csv('scores finished endurance.csv')
df = df[df[['Endurance Score']] != 0]
df = df.dropna(subset = ['Total Score'])
df = df.sort_values(by=['Total Score'], ascending=True)
fig = px.scatter(df, x = "Endurance Score", y = "Skid Pad Score", color = "Team", trendline = "ols", trendline_scope="overall", trendline_color_override = 'white', title = 'Endurance vs Skidpad',
fig.add_trace(go.Scatter(x=[155.1], y=[54.8], name="University of North Florida", marker_symbol = 'star-dot', marker_size = 11 ))
fig
```



```
In [12]: df = pd.read_csv('scores finished endurance.csv')
df = df[df[['Endurance Score']] != 0]
df = df.dropna(subset = ['Total Score'])
df = df.sort_values(by=['Total Score'], ascending=True)
fig = px.scatter(df, x = "Endurance Score", y = "Acceleration Score", color = "Team", trendline = "ols", trendline_scope="overall", trendline_color_override = 'white', title = 'Endurance vs Acceleration',
fig.add_trace(go.Scatter(x=[155.1], y=[37.8], name="University of North Florida", marker_symbol = 'star-dot', marker_size = 11 ))
fig
```



```
In [ ]:
```