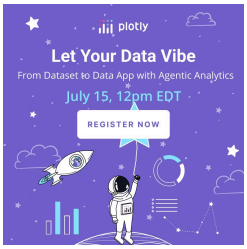
3D Subplots in Python

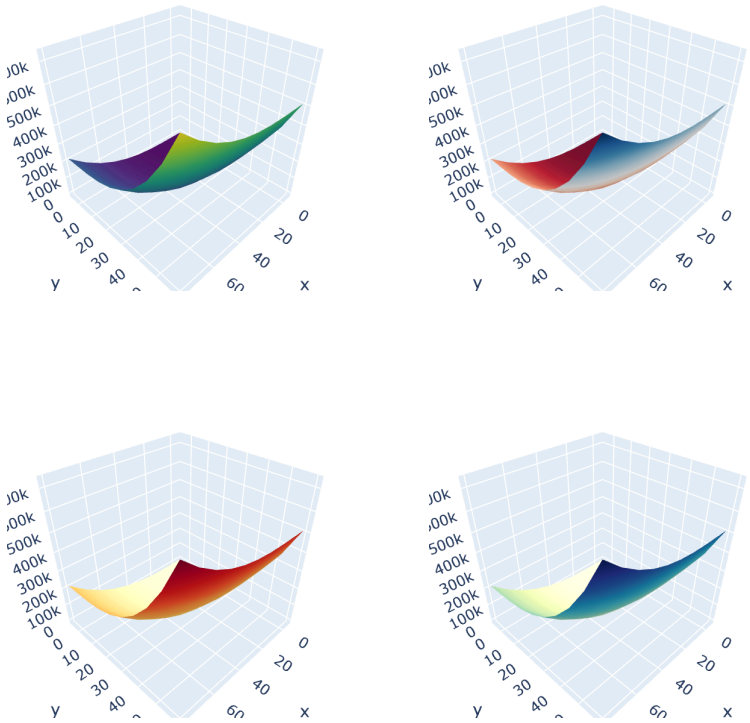
3D Subplots in Plotly

3D Surface Subplots



```
import plotly.graph_objects as go
from plotly.subplots import make_subplots

import numpy as np

# Initialize figure with 4 3D subplots
fig = make_subplots(
    rows=2, cols=2,
    specs=[[{'type': 'surface'}, {'type': 'surface'}],
           [{'type': 'surface'}, {'type': 'surface'}]])

# Generate data
x = np.linspace(-5, 80, 10)
y = np.linspace(-5, 60, 10)
xGrid, yGrid = np.meshgrid(y, x)
z = xGrid ** 3 + yGrid ** 3

# adding surfaces to subplots.
fig.add_trace(
    go.Surface(x=x, y=y, z=z, colorscale='Viridis', showscale=False),
    row=1, col=1)

fig.add_trace(
    go.Surface(x=x, y=y, z=z, colorscale='RdBu', showscale=False),
    row=1, col=2)

fig.add_trace(
    go.Surface(x=x, y=y, z=z, colorscale='YlOrRd', showscale=False),
    row=2, col=1)

fig.add_trace(
    go.Surface(x=x, y=y, z=z, colorscale='YlGnBu', showscale=False),
    row=2, col=2)

fig.update_layout(
    title_text='3D subplots with different colorscales',
    height=800,
    width=800
)

fig.show()
```

3D subplots with different colorscales



Reference

See https://plotly.com/python/subplots/ (https://plotly.com/python/subplots/) for more information regarding subplots!

What About Dash?

Dash (https://dash.plot.ly/) is an open-source framework for building analytical applications, with no Javascript required, and it is tightly integrated with the Plotly graphing library.

Learn about how to install Dash at https://dash.plot.ly/installation (https://dash.plot.ly/installation).

Everywhere in this page that you see fig.show(), you can display the same figure in a Dash application by passing it to the figure argument of the Graph component (https://dash.plot.ly/dash-core-components/graph) from the built-in `dash_core_components` package like this:

```
import plotly.graph_objects as go # or plotly.express as px
fig = go.Figure() # or any Plotly Express function e.g. px.bar(...)
# fig.add_trace( ... )
# fig.update_layout( ... )

from dash import Dash, dcc, html

app = Dash()
app.layout = html.Div([
    dcc.Graph(figure=fig)
])

app.run(debug=True, use_reloader=False)  # Turn off reloader if inside Jupyter
```