

```
!pip install --upgrade plotly
```

```
Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/colab-wheels/public
Requirement already satisfied: plotly in /usr/local/lib/python3.7/dist-packages (5.11.0)
Requirement already satisfied: tenacity>=6.2.0 in /usr/local/lib/python3.7/dist-packages
```

```
!pip install jupyter-dash
```

```
Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/colab-wheels/public
Requirement already satisfied: jupyter-dash in /usr/local/lib/python3.7/dist-packages (0.4.2)
Requirement already satisfied: flask in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (2.0.2)
Requirement already satisfied: dash in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (2.10.1)
Requirement already satisfied: requests in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (2.28.1)
Requirement already satisfied: ipykernel in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (6.12.0)
Requirement already satisfied: nest-asyncio in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (1.5.5)
Requirement already satisfied: retrying in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (1.3.4)
Requirement already satisfied: ipython in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (7.31.0)
Requirement already satisfied: ansi2html in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (1.9.0)
Requirement already satisfied: importlib-metadata in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (4.12.0)
Requirement already satisfied: dash-core-components==2.0.0 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (2.0.0)
Requirement already satisfied: plotly>=5.0.0 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (5.11.0)
Requirement already satisfied: dash-html-components==2.0.0 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (2.0.0)
Requirement already satisfied: dash-table==5.0.0 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (5.0.0)
Requirement already satisfied: Werkzeug<2.0,>=0.15 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (2.0.3)
Requirement already satisfied: Jinja2<3.0,>=2.10.1 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (3.0.3)
Requirement already satisfied: click<8.0,>=5.1 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (8.0.4)
Requirement already satisfied: itsdangerous<2.0,>=0.24 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (2.0.1)
Requirement already satisfied: MarkupSafe>=0.23 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (2.0.1)
Requirement already satisfied: tenacity>=6.2.0 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (6.2.0)
Requirement already satisfied: zipp>=0.5 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (3.6.0)
Requirement already satisfied: typing-extensions>=3.6.4 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (4.1.1)
Requirement already satisfied: jupyter-client in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (7.2.0)
Requirement already satisfied: tornado>=4.2 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (6.1.0)
Requirement already satisfied: traitlets>=4.1.0 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (4.1.0)
Requirement already satisfied: backcall in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (0.2.0)
Requirement already satisfied: pickleshare in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (0.7.5)
Requirement already satisfied: pygments in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (2.12.0)
Requirement already satisfied: jedi>=0.10 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (0.19.0)
Requirement already satisfied: prompt-toolkit<2.1.0,>=2.0.0 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (2.0.10)
Requirement already satisfied: pexpect in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (4.8.0)
Requirement already satisfied: setuptools>=18.5 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (59.5.0)
Requirement already satisfied: decorator in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (4.4.2)
Requirement already satisfied: parso<0.9.0,>=0.8.0 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (0.8.3)
Requirement already satisfied: wcwidth in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (0.2.5)
Requirement already satisfied: six>=1.9.0 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (1.16.0)
Requirement already satisfied: pyzmq>=13 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (22.3.0)
Requirement already satisfied: jupyter-core>=4.6.0 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (4.12.0)
Requirement already satisfied: python-dateutil>=2.1 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (2.8.2)
Requirement already satisfied: Ptyprocess>=0.5 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (0.7.0)
Requirement already satisfied: idna<3,>=2.5 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (3.3)
Requirement already satisfied: urllib3!=1.25.0,!1.25.1,<1.26,>=1.21.1 in /usr/local/lib/python3.7/dist-packages (from jupyter-dash) (1.25.11)
```

```
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.7/dist-packa
Requirement already satisfied: chardet<4,>=3.0.2 in /usr/local/lib/python3.7/dist-packa
```

```
!pip install plotly.express
```

```
Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/colab-wheels/pub/
Requirement already satisfied: plotly.express in /usr/local/lib/python3.7/dist-packages
Requirement already satisfied: pandas>=0.20.0 in /usr/local/lib/python3.7/dist-packages
Requirement already satisfied: plotly>=4.1.0 in /usr/local/lib/python3.7/dist-packages
Requirement already satisfied: statsmodels>=0.9.0 in /usr/local/lib/python3.7/dist-packa
Requirement already satisfied: numpy>=1.11 in /usr/local/lib/python3.7/dist-packages (fr
Requirement already satisfied: scipy>=0.18 in /usr/local/lib/python3.7/dist-packages (fr
Requirement already satisfied: patsy>=0.5 in /usr/local/lib/python3.7/dist-packages (fro
Requirement already satisfied: python-dateutil>=2.7.3 in /usr/local/lib/python3.7/dist-p
Requirement already satisfied: pytz>=2017.3 in /usr/local/lib/python3.7/dist-packages (f
Requirement already satisfied: six in /usr/local/lib/python3.7/dist-packages (from patsy
Requirement already satisfied: tenacity>=6.2.0 in /usr/local/lib/python3.7/dist-packages
```

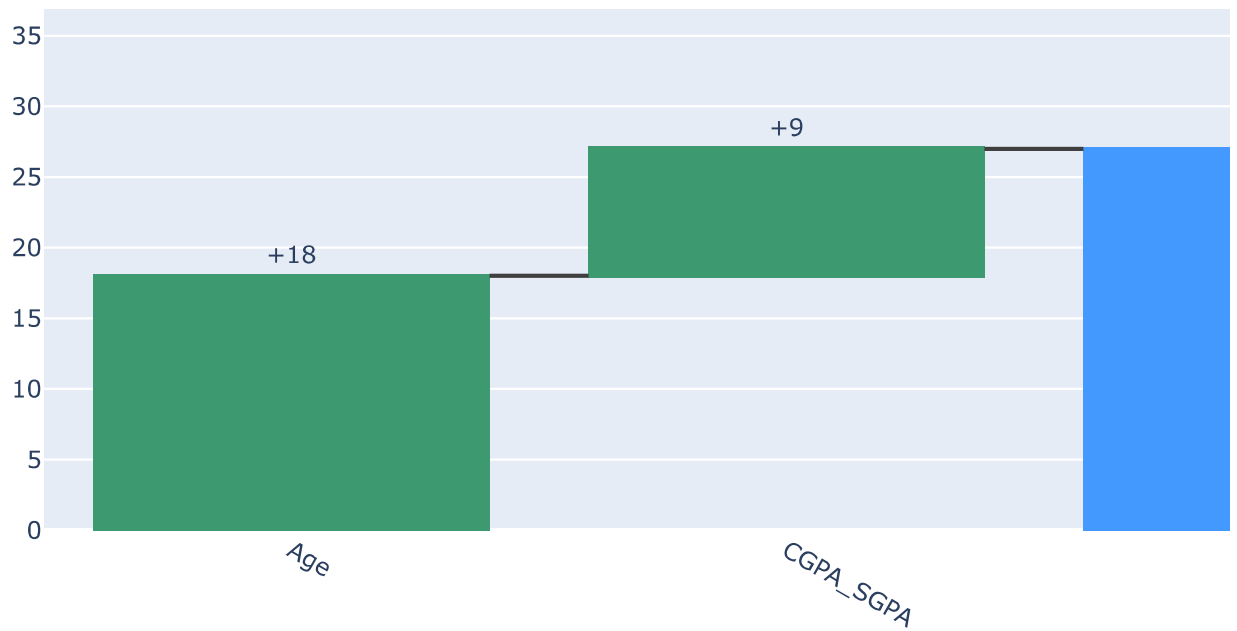
```
import plotly.graph_objects as go
import plotly.express as px
from jupyter_dash import JupyterDash
import dash_core_components as dcc
import dash_html_components as html
from dash.dependencies import Input, Output
import pandas as pd
```

```
#import plotly and read the csv file(Data Processing)
import pandas as pd
import plotly.express as px
df = pd.read_csv('Survey on Student Mental Health1 (1).csv')
df.head()
```

```
import plotly.graph_objects as go
fig = go.Figure(go.Waterfall(
    name = "20", orientation = "v",
    measure = ["relative", "relative", "total", "relative", "relative"],
    x = ["Age", "CGPA_SGPA ", "What_is_your_screen_time", "How_much_time_are_you_sleeping_ev
    textposition = "outside",
    text = ["+18", "+9", "0", "+5", "+3"],
    y = [18, 9, 8, 5, 3],
    connector = {"line":{"color":"rgb(63, 63, 63)"}},
))

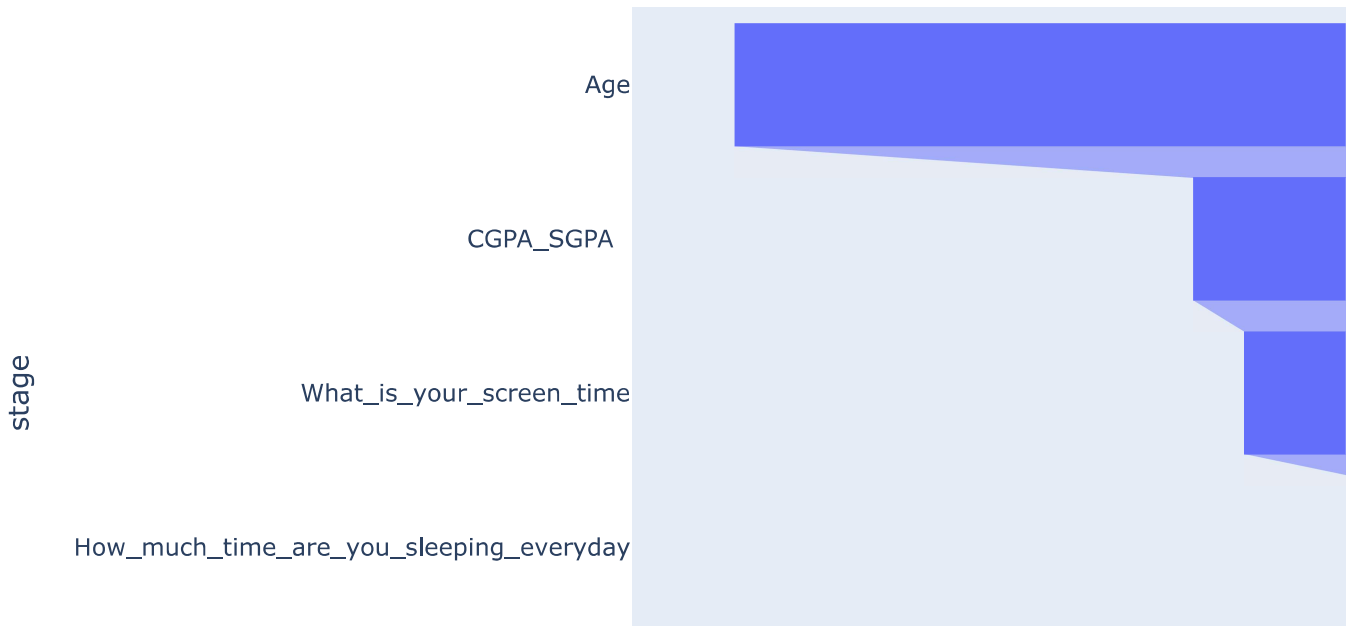
fig.update_layout(
    title = "Survey on Student Mental Health1",
    showlegend = True
)
fig.show()
```

Survey on Student Mental Health1

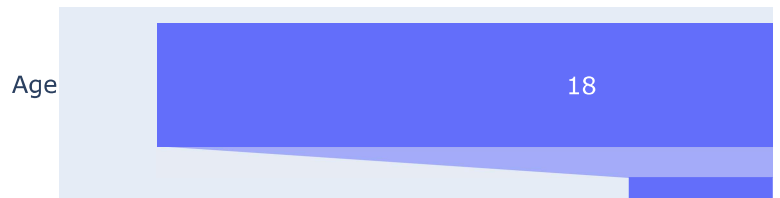


```
#import plotly and read the csv file(Data Processing)
import pandas as pd
import plotly.express as px
df = pd.read_csv('Survey on Student Mental Health1 (1).csv')
df.head()

import plotly.express as px
data = dict(
    number=[18, 9, 8, 5, 3],
    stage=["Age", "CGPA_SGPA ", "What_is_your_screen_time", "How_much_time_are_you_sleeping_",
fig = px.funnel(data, x='number', y='stage')
fig.show()
```

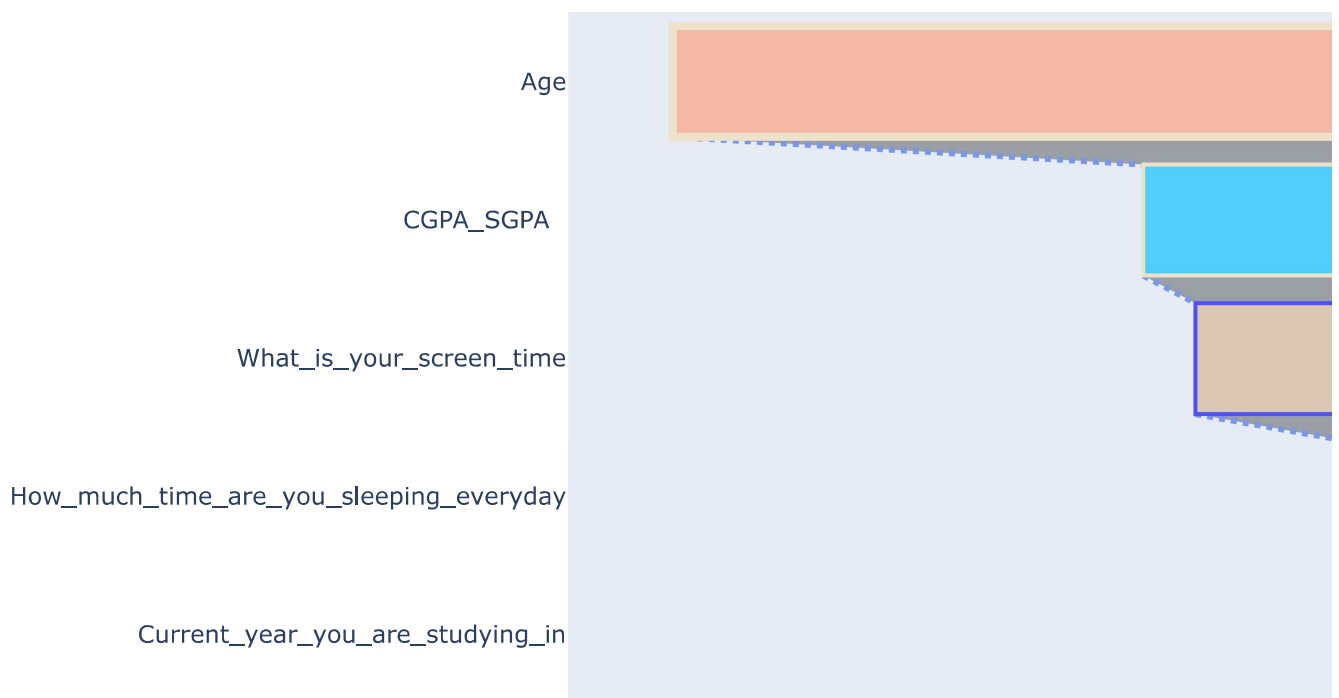


```
import plotly.express as px
import pandas as pd
stages = ["Age", "CGPA_SGPA ", "What_is_your_screen_time", "How_much_time_are_you_sleeping_e
df_mtl = pd.DataFrame(dict(number=[18, 9, 8, 5, 3], stage=stages))
df_mtl['office'] = 'Montreal'
df_toronto = pd.DataFrame(dict(number=[19, 8, 7, 6, 4], stage=stages))
df_toronto['office'] = 'Toronto'
df = pd.concat([df_mtl, df_toronto], axis=0)
fig = px.funnel(df, x='number', y='stage', color='office')
fig.show()
```



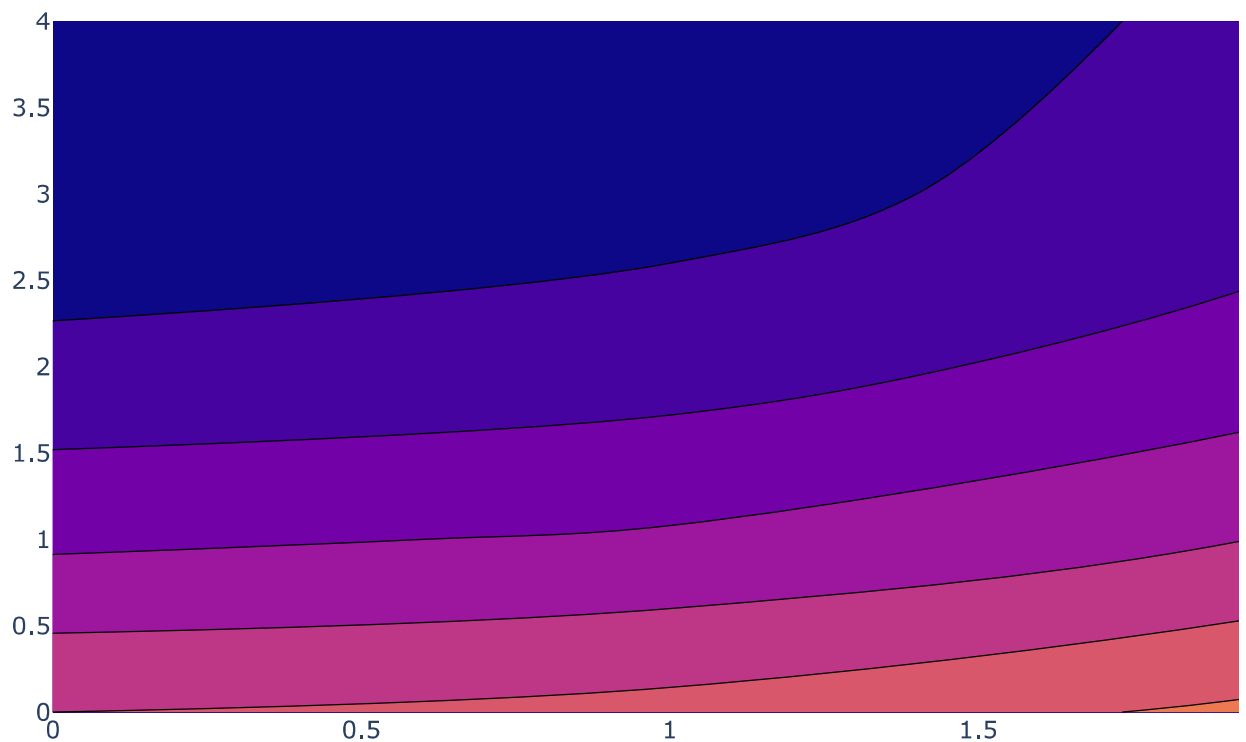
```
from plotly import graph_objects as go
```

```
fig = go.Figure(go.Funnel(
    y = ["Age", "CGPA_SGPA", "What_is_your_screen_time", "How_much_time_are_you_sleeping_ev",
        "Current_year_you_are_studying_in"],
    x = [18, 9, 8, 5, 3],
    textposition = "inside",
    textinfo = "value+percent initial",
    opacity = 0.65, marker = {"color": ["lightsalmon", "deepskyblue", "tan", "teal", "silver"]},
    "line": {"width": [4, 2, 2, 3, 1, 1], "color": ["wheat", "wheat", "blue", "wheat", "wheat"]},
    connector = {"line": {"color": "royalblue", "dash": "dot", "width": 3}}))
fig.show()
```



```
#import plotly and read the csv file(Data Processing)
import pandas as pd
import plotly.express as px
df = pd.read_csv('Survey on Student Mental Health1 (1).csv')
df.head()
```

```
import plotly.graph_objects as go
fig = go.Figure(data =
    go.Contour(
        z=[[10, 10.625, 12.5, 15.625, 20],
            [5.625, 6.25, 8.125, 11.25, 15.625],
            [2.5, 3.125, 5., 8.125, 12.5],
            [0.625, 1.25, 3.125, 6.25, 10.625],
            [0, 0.625, 2.5, 5.625, 10]]
    ))
fig.show()
```



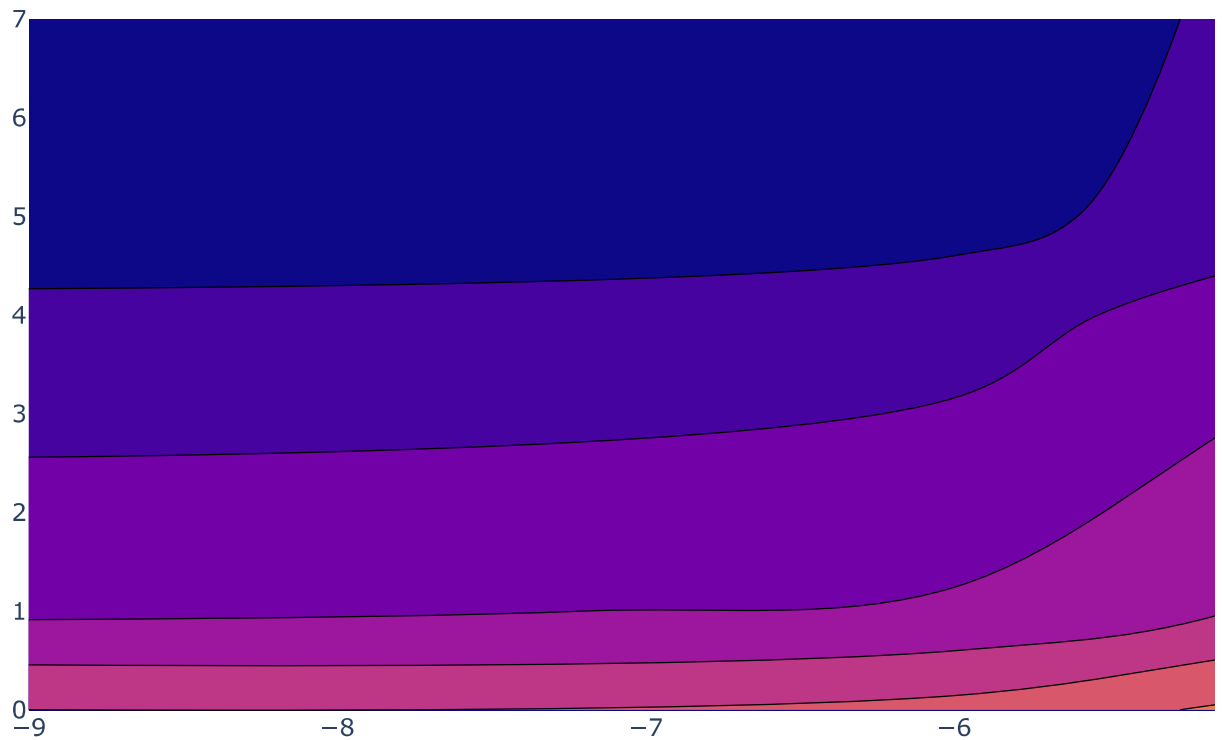
```
import plotly.graph_objects as go

fig = go.Figure(data =
    go.Contour(
        z=[[10, 10.625, 12.5, 15.625, 20],
```

```

[5.625, 6.25, 8.125, 11.25, 15.625],
[2.5, 3.125, 5., 8.125, 12.5],
[0.625, 1.25, 3.125, 6.25, 10.625],
[0, 0.625, 2.5, 5.625, 10]],
x=[-9, -6, -5, -3, -1], # horizontal axis
y=[0, 1, 4, 5, 7] # vertical axis
))
fig.show()

```

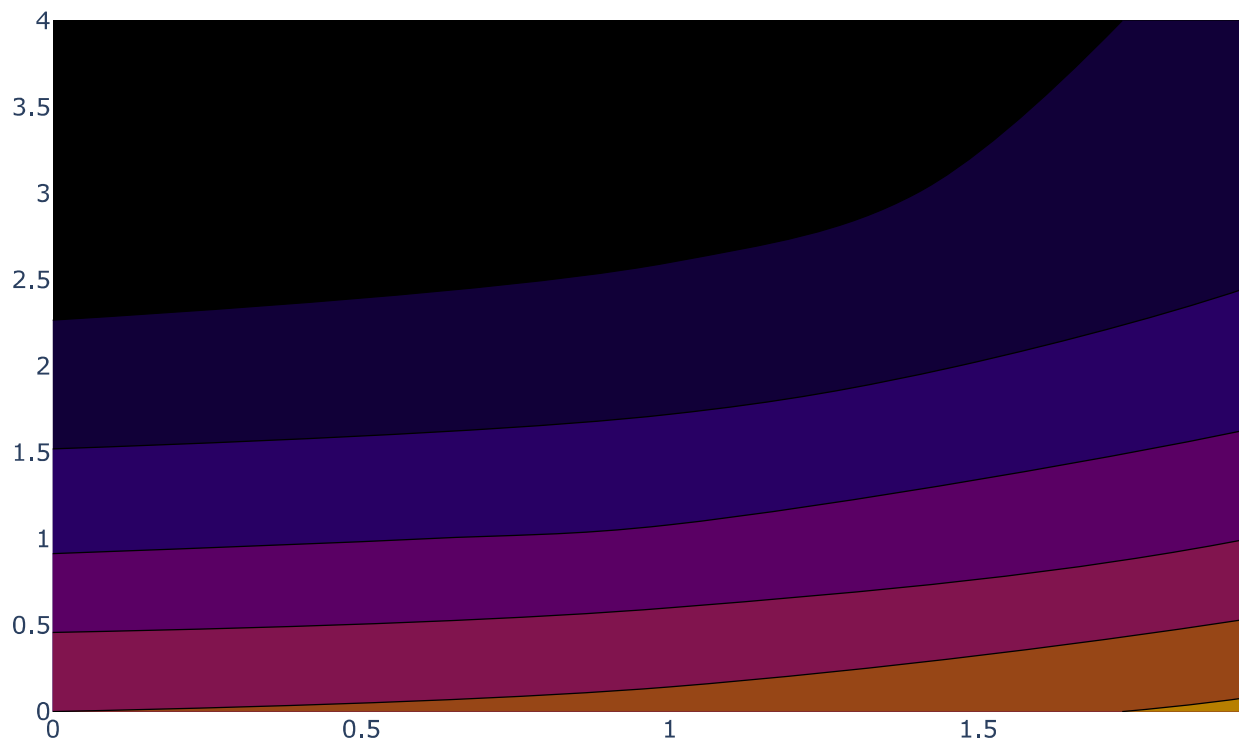


```

import plotly.graph_objects as go

fig = go.Figure(data =
    go.Contour(
        z=[[10, 10.625, 12.5, 15.625, 20],
            [5.625, 6.25, 8.125, 11.25, 15.625],
            [2.5, 3.125, 5., 8.125, 12.5],
            [0.625, 1.25, 3.125, 6.25, 10.625],
            [0, 0.625, 2.5, 5.625, 10]],
        colorscale='Electric',
    ))
fig.show()

```

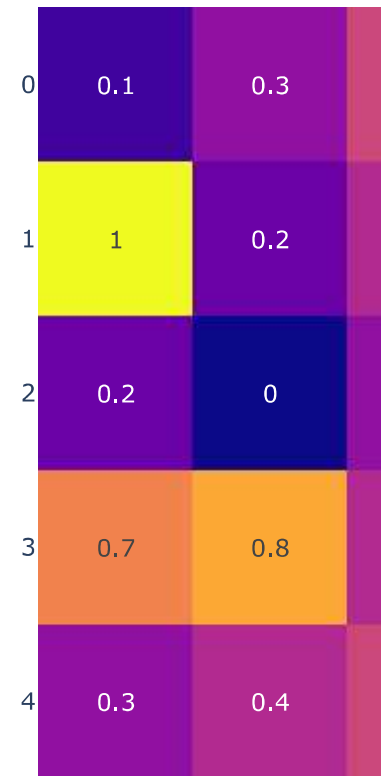


```
#import plotly and read the csv file(Data Processing)
import pandas as pd
import plotly.express as px
df = pd.read_csv('Survey on Student Mental Health1 (1).csv')
df.head()
```

```
import plotly.express as px
```

```
z = [[.1, .3, .5, .7, .9],
      [1, .2, .4, .6, .8],
      [.2, 0, .3, .5, .7],
      [.7, .8, .4, .2, 0],
      [.3, .4, .5, .7, 1]]
```

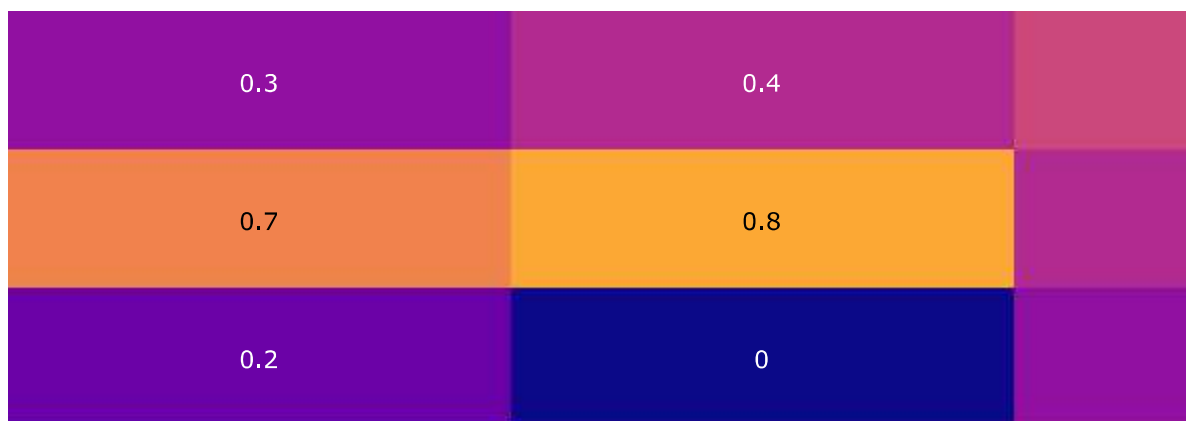
```
fig = px.imshow(z, text_auto=True)
fig.show()
```

```
import plotly.figure_factory as ff

z = [[.1, .3, .5, .7, .9],
      [1, .2, .4, .6, .8],
      [.2, 0, .3, .5, .7],
      [.7, .8, .4, .2, 0],
      [.3, .4, .5, .7, 1]]
```

```
fig = ff.create_annotated_heatmap(z)
fig.show()
```



```
import plotly.figure_factory as ff
import numpy as np
np.random.seed(1)

z = np.random.randn(10, 10)
z_text = np.around(z, decimals=2) # Only show rounded value (full value on hover)

fig = ff.create_annotated_heatmap(z, annotation_text=z_text, colorscale='Greys',
                                  hoverinfo='z')

# Make text size smaller
for i in range(len(fig.layout.annotations)):
    fig.layout.annotations[i].font.size = 9

fig.show()
```

1.2	0.19	-0.38	-0.64	0.42
-0.22	-0.2	0.19	0.41	0.2
-1.44	-0.5	0.16	0.88	0.32
-0.75	1.25	0.51	-0.3	0.49
0.3	-0.35	-1.14	-0.35	-0.21
-0.19	-0.89	-0.75	1.69	0.05
-0.69	-0.4	-0.69	-0.85	-0.67
-1.1	1.14	0.9	0.5	0.9
1.46	-2.06	-0.32	-0.38	1.13
1.62	-0.61	-0.53	-1.07	0.87

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