**Cheat Sheet : Plotly and Dash**

| **Function** | **Description** | **Syntax** | **Example** |
| --- | --- | --- | --- |
| Plotly Express |  |  |  |
| **scatter** | Create a scatter plot | px.scatter(dataframe, x=x\_column, y=y\_column) | px.scatter(df, x=age\_array, y=income\_array) |
| **line** | Create a line plot | px.line( x=x\_column, y=y\_column,'title') | px.line(x=months\_array, y=no\_bicycle\_sold\_array) |
| **bar** | Create a bar plot | px.bar( x=x\_column, y=y\_column,title='title') | px.bar( x=grade\_array, y=score\_array, title='Pass Percentage') |
| **sunburst** | Create a sunbust plot | px.sunburst(dataframe, path=[col1,col2..], values='column',title='title') | px.sunburst(data, path=['Month', 'DestStateName'], values='Flights',title='Flight Distribution Hierarchy') |
| **histogram** | Create a histogram | px.histogram(x=x,title="title") | px.histogram(x=heights\_array,title="Distribution of Heights") |
| **bubble** | Create a bubble chart | px.scatter(dataframe, x=x,y=y,size=size,title="title") | px.scatter(bub\_data, x="City", y="Numberofcrimes", size="Numberofcrimes",hover\_name="City", title='Crime Statistics') |
| **pie** | Create a pie chart | px.pie(values=x,names=y,title="title") | px.pie(values=exp\_percent, names=house\_holdcategories, title='Household Expenditure') |
| Plotly Graph Objects |  |  |  |
| **Scatter** | Create a scatter | go.Scatter(x=x, y=y, mode='markers') | go.Scatter(x=age\_array, y=income\_array, mode='markers') |
|  | Create a line plot | go.Scatter(x=x, y=y, mode='lines') | go.Bar(x=months\_array, y=no\_bicycle\_sold\_array,mode='lines') |
| **add\_trace** | Add additional traces to an existing figure | fig.add\_trace(trace\_object) | fig.add\_trace(go.Scatter(x=months\_array, y=no\_bicycle\_sold\_array)) |
| **update\_layout** | Update the layout of a figure, such as title, axis labels, and annotations. | fig.update\_layout(layout\_object) | fig.update\_layout(title='Bicycle Sales', xaxis\_title='Months', yaxis\_title='Number of Bicycles Sold') |
| Dash |  |  |  |
| **dash\_core\_components.Input** | Create an input component | dcc.Input(value='', type='text') | dcc.Input(value='Hello', type='text') |
| **dash\_core\_components.Graph** | Create a graph component | dcc.Graph(figure=fig) | dcc.Graph(figure=fig) |
| **dash\_html\_components.Div** | Create a div element | html.Div(children=component\_list) | html.Div(children=[html.H1('Hello Dash'), html.P('Welcome to Dash')]) |
| **dash\_core\_components.Dropdown** | Create a dropdown component | dcc.Dropdown(options=options\_list, value=default\_value) | dcc.Dropdown(options=[{'label': 'Option 1', 'value': '1'}, {'label': 'Option 2', 'value': '2'}], value='1') |