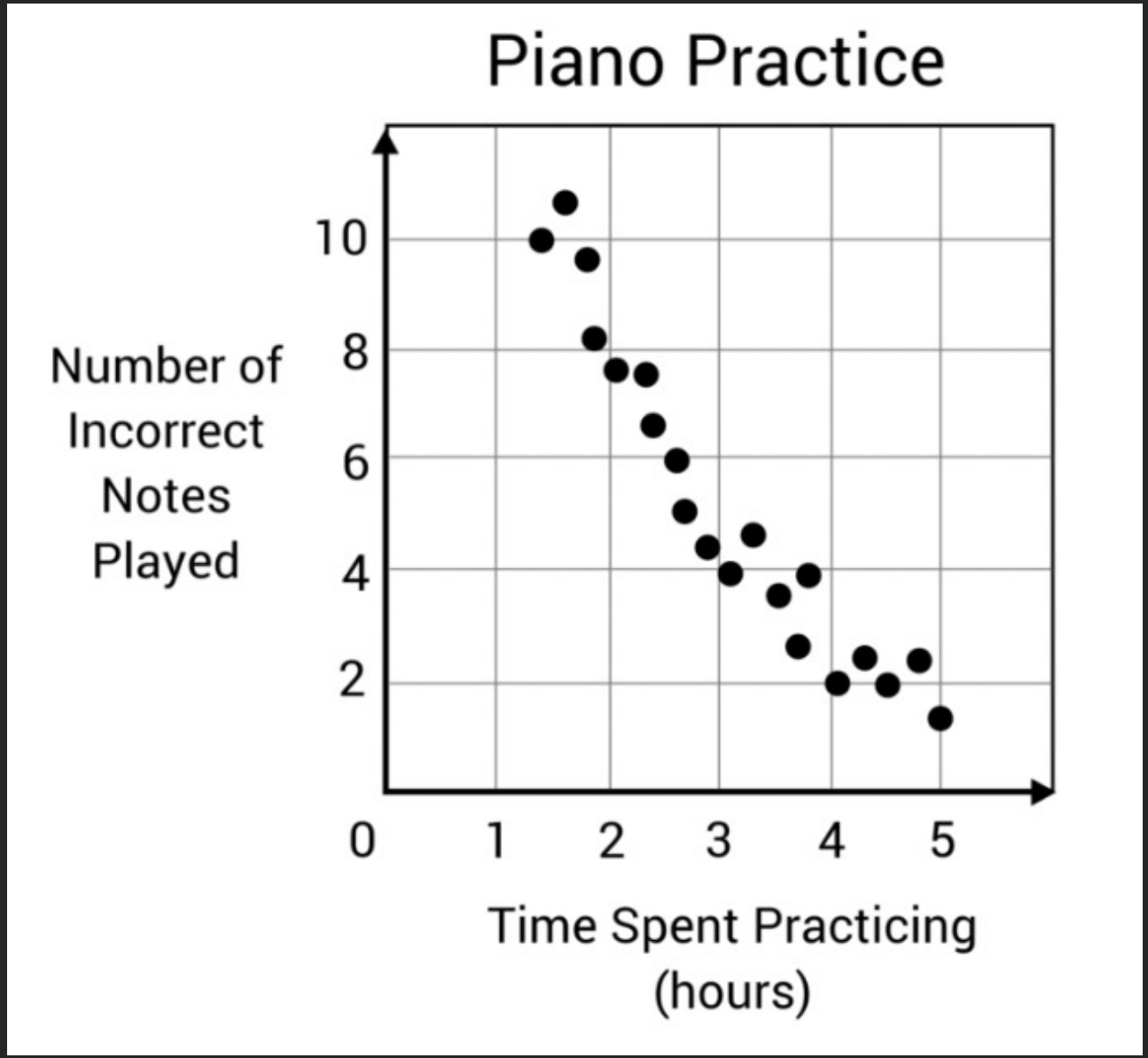
Styling Plotly Charts

How to Add Extra Options to Customize Plotly Charts

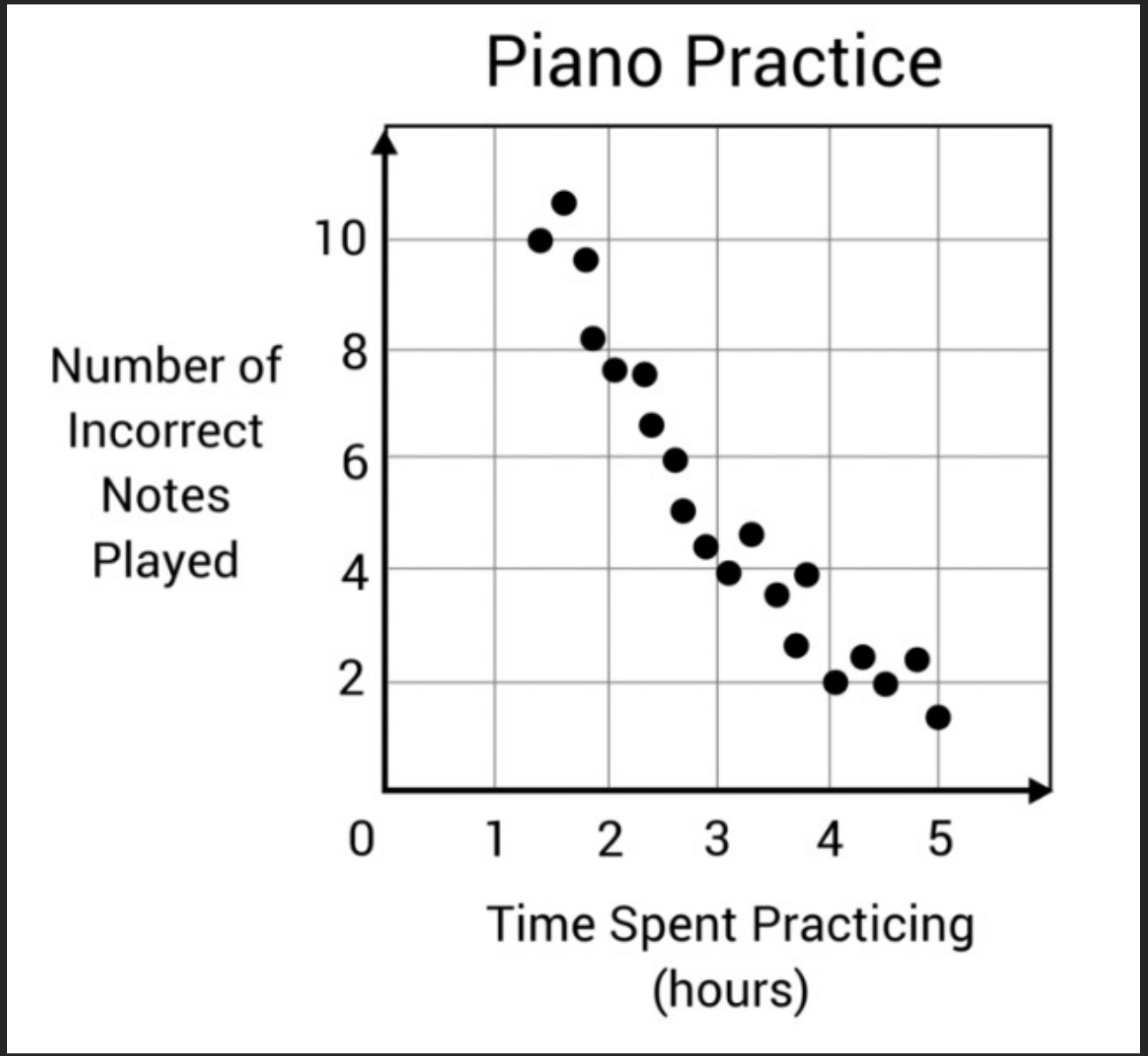
Think Share Activity

- What are the parts of a chart?



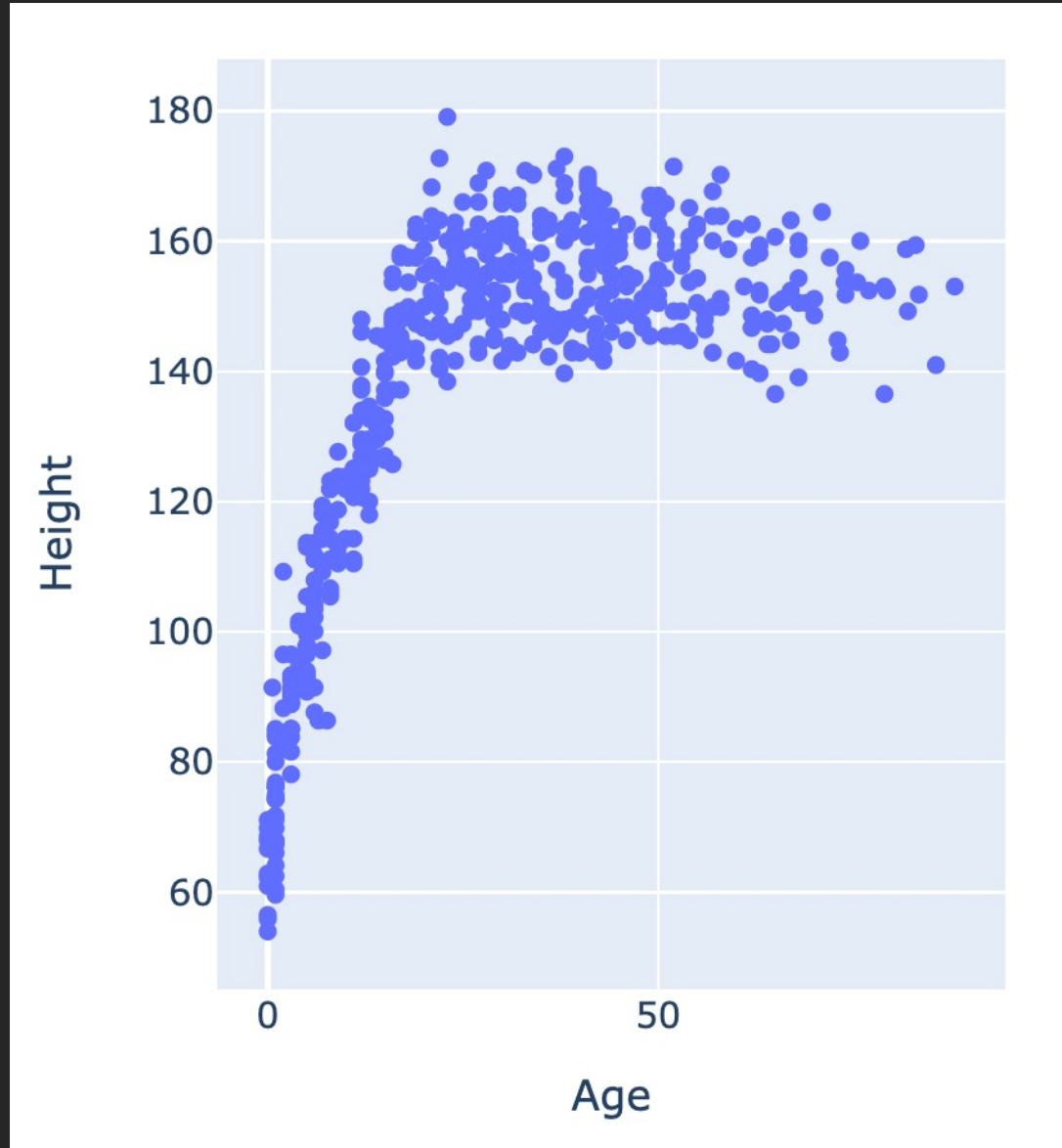
Parts of a Chart

- Title
- Chart body
  - Axes
  - Coordinate space
  - Points, lines
- Axis labels
- Color legend



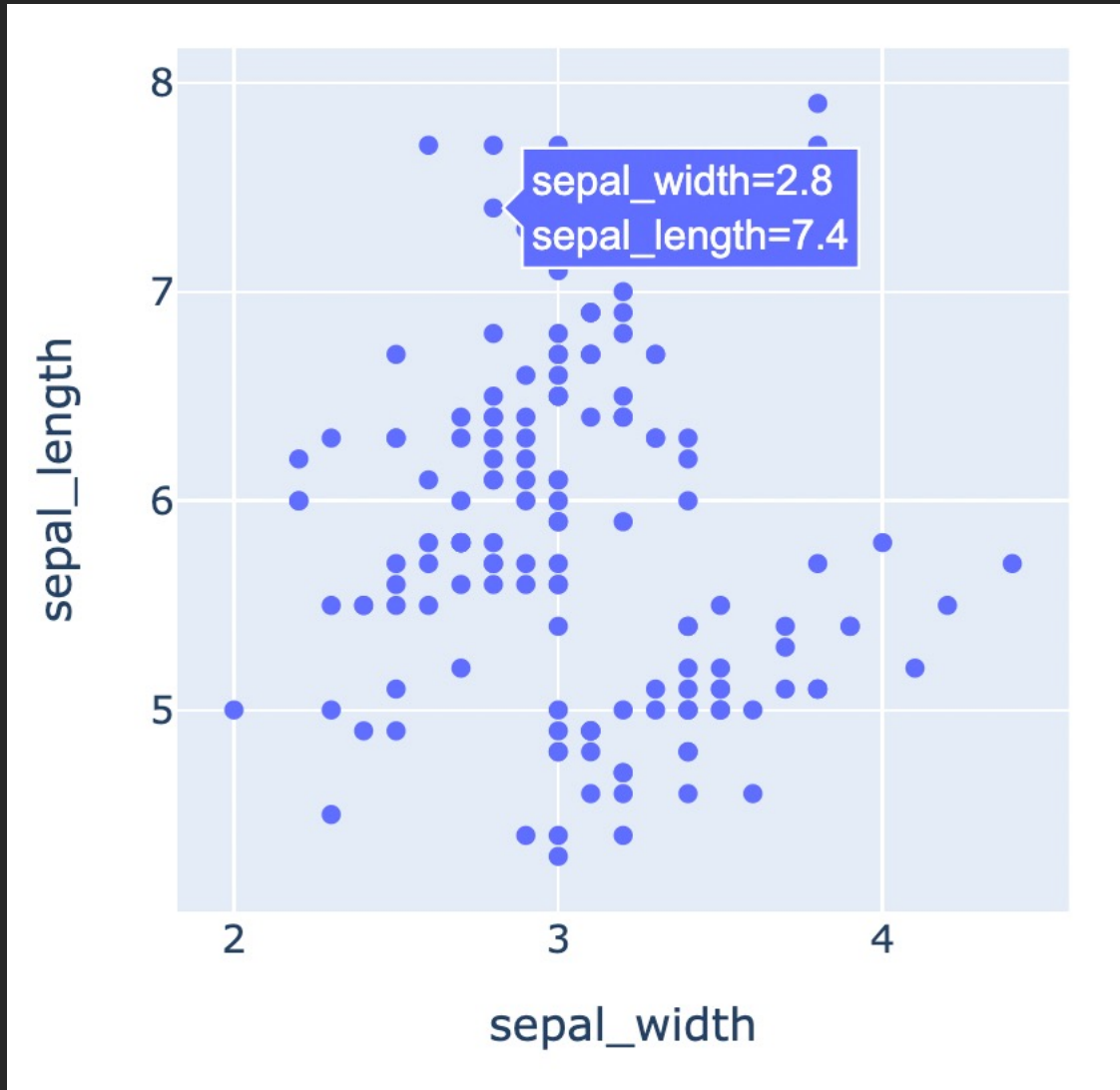
Default Plotly Chart Styling

- For this dataset column names were:
  - Age
  - Height
  - Gender
- Axis labels depend on column names
- Looks pretty good, except no title

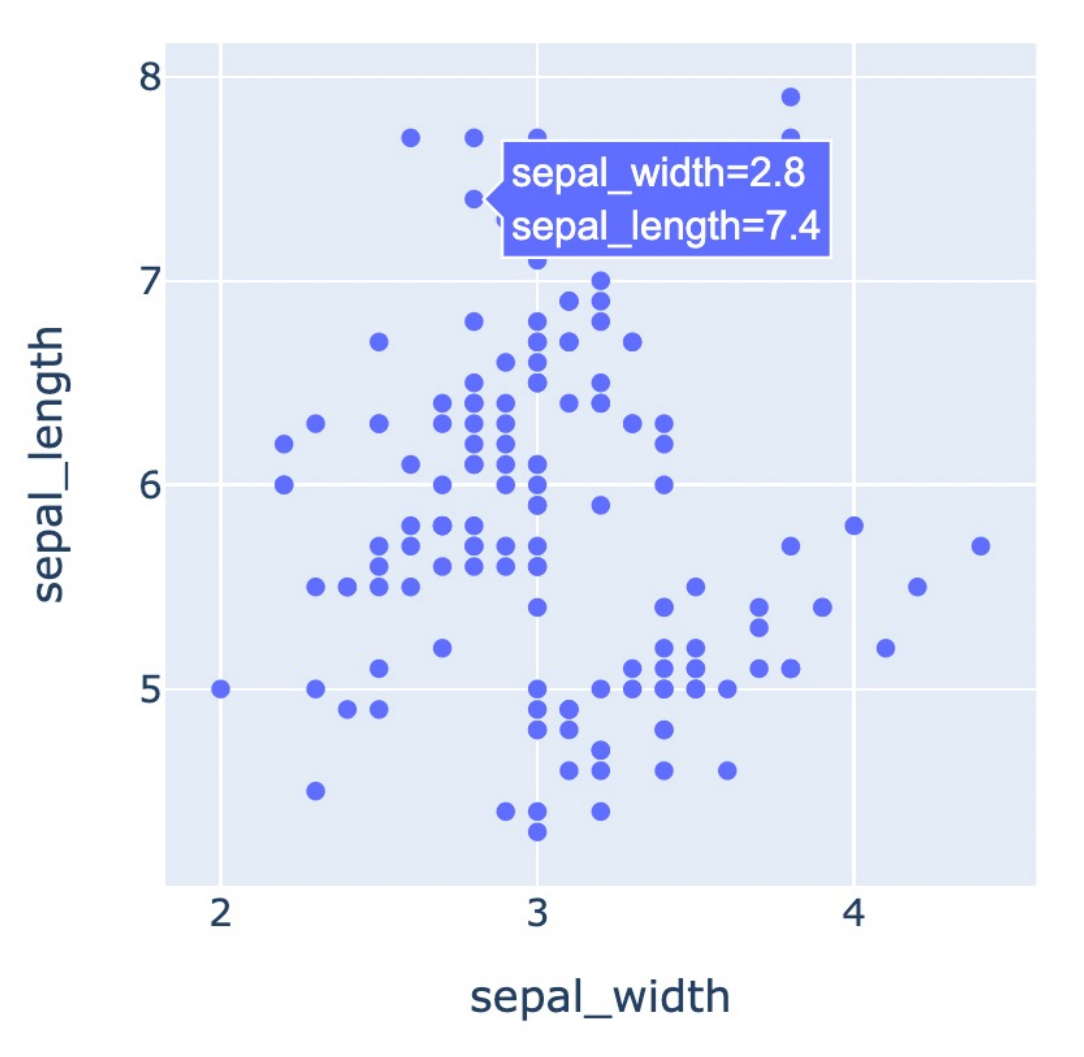


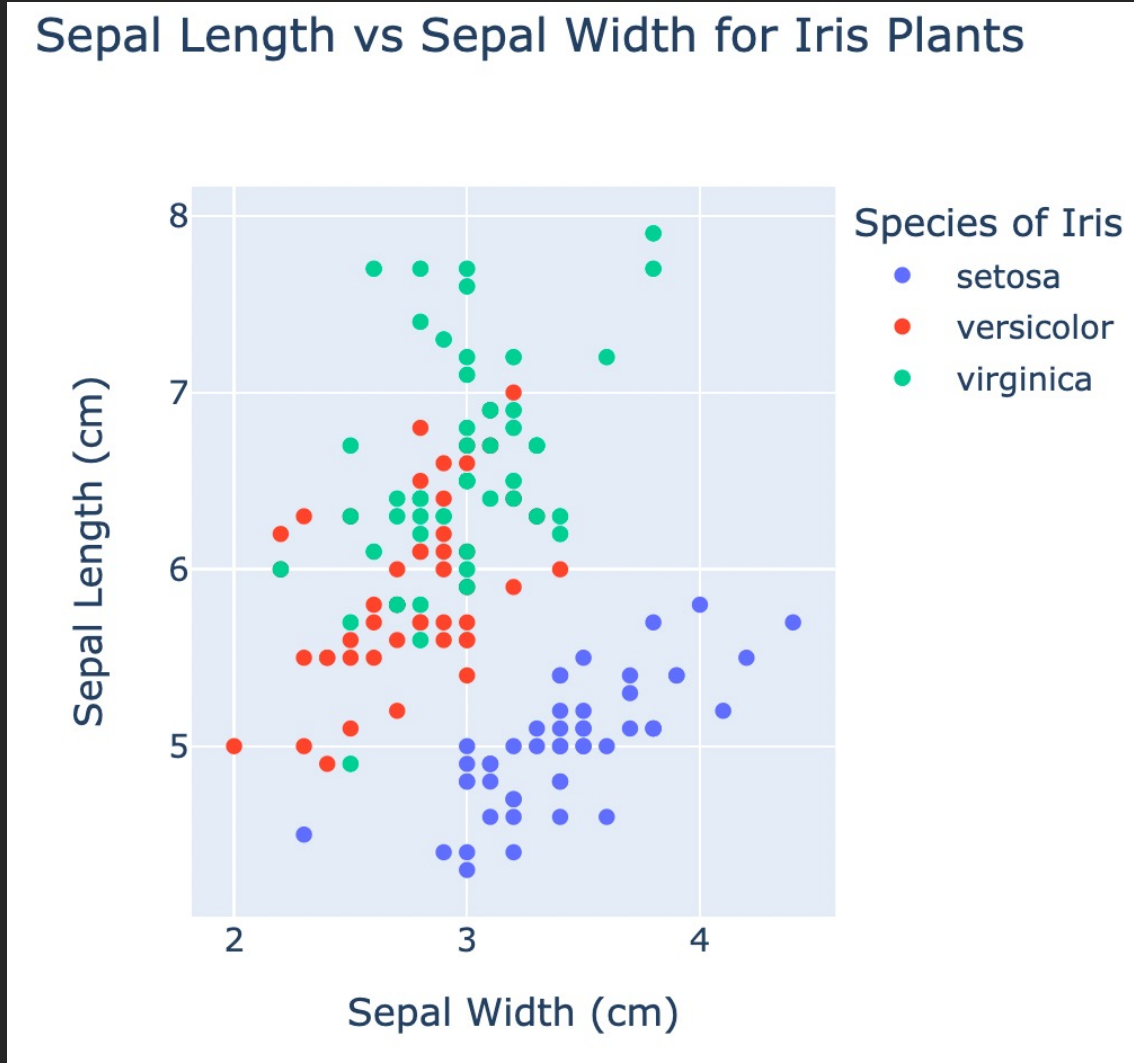
Default Plotly Chart Styling

- For this dataset column names were:
  - sepal_length
  - sepal_width
- Doesn’t look so nice…
- But we can customize!



Plotly Chart Options: Before & After





Plotly Chart Options

- Many options to change!

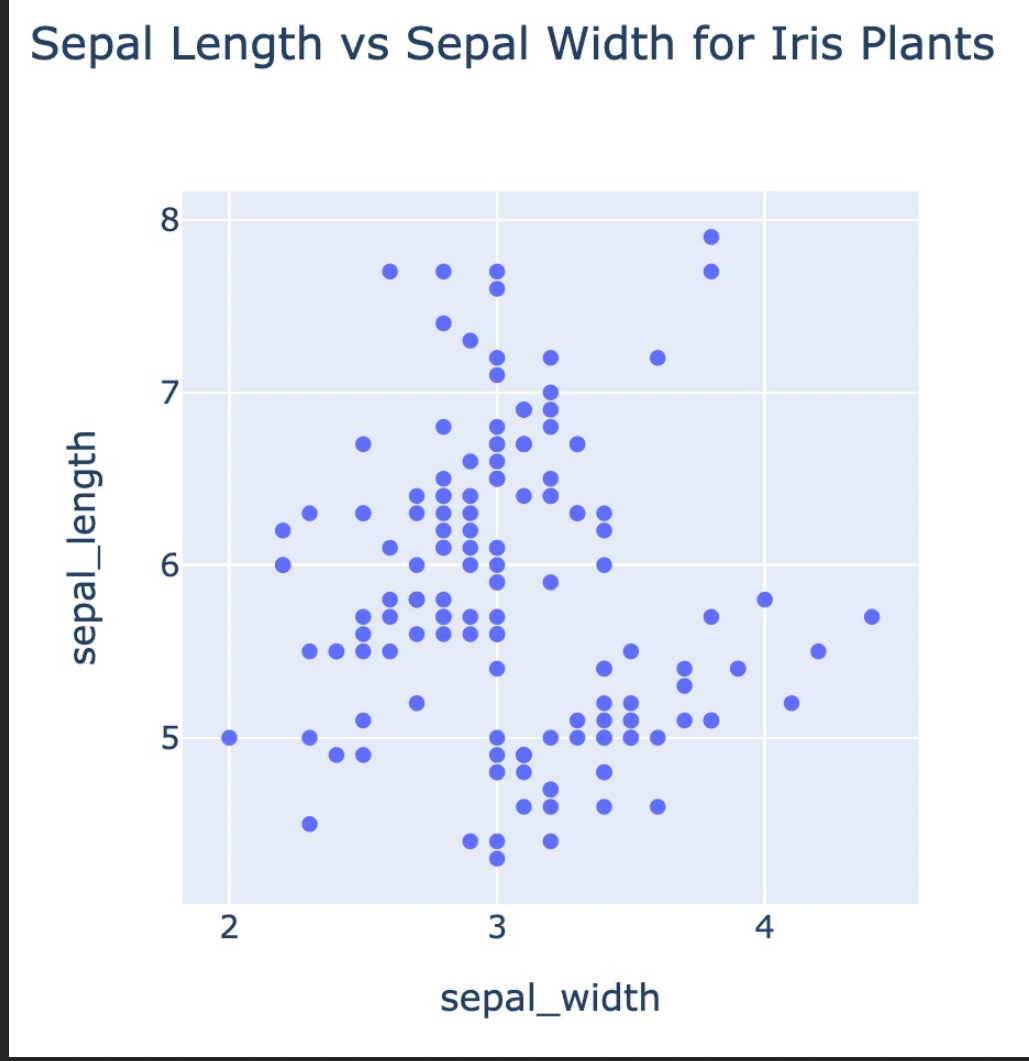
- Set title
- Set color of each point based on an additional variable
- Change chart labels

How-to: Adding Chart Title

- Add an extra option to px.scatter

```
title = 'Sepal Length vs Sepal Width for Iris Plants'
```

```
px.scatter(df, x=x, y=y, title=title)
```



- This is equivalent to doing:

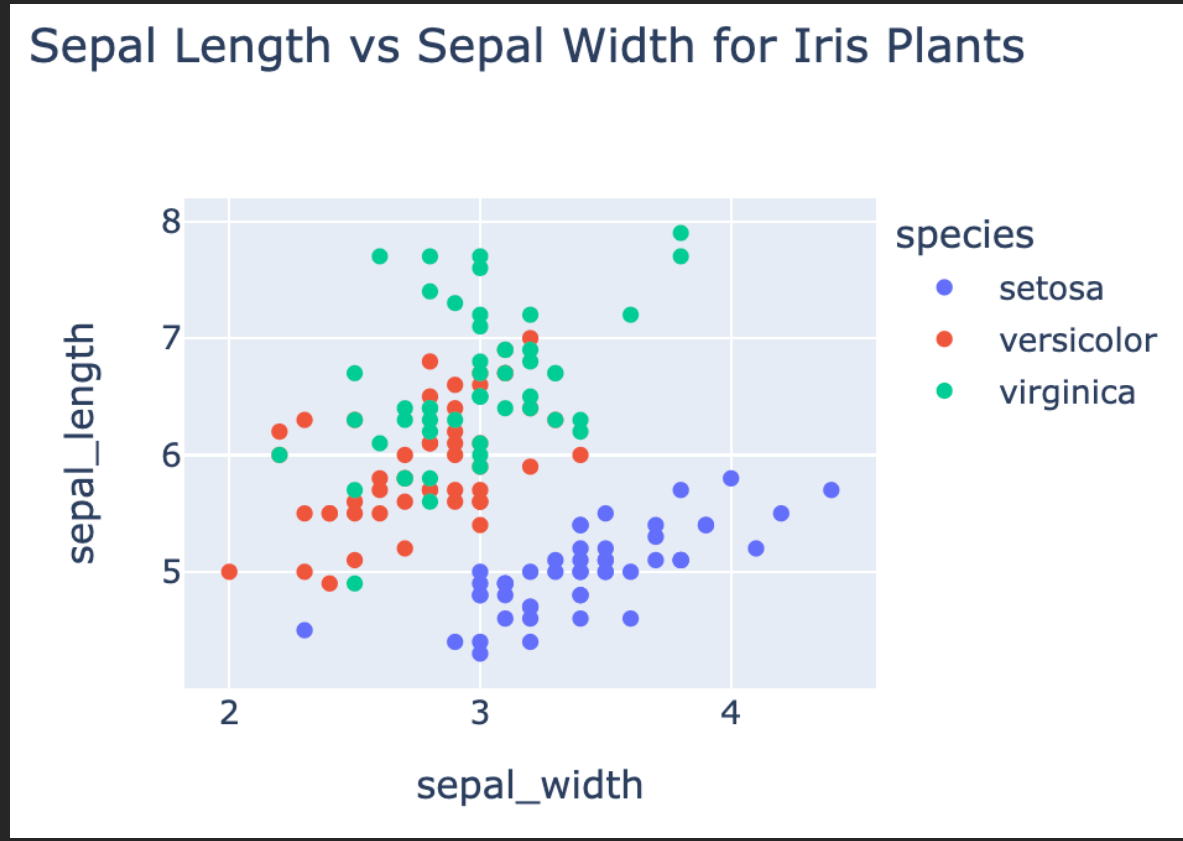
```
px.scatter(df, x=x, y=y, title="Sepal Length vs Sepal Width for Iris Plants")
```

How-to: Set Color of Points w/ Variable

- Add an extra option to px.scatter

```
color = "species"
```

```
px.scatter(df, x=x, y=y, title=title, color=color)
```

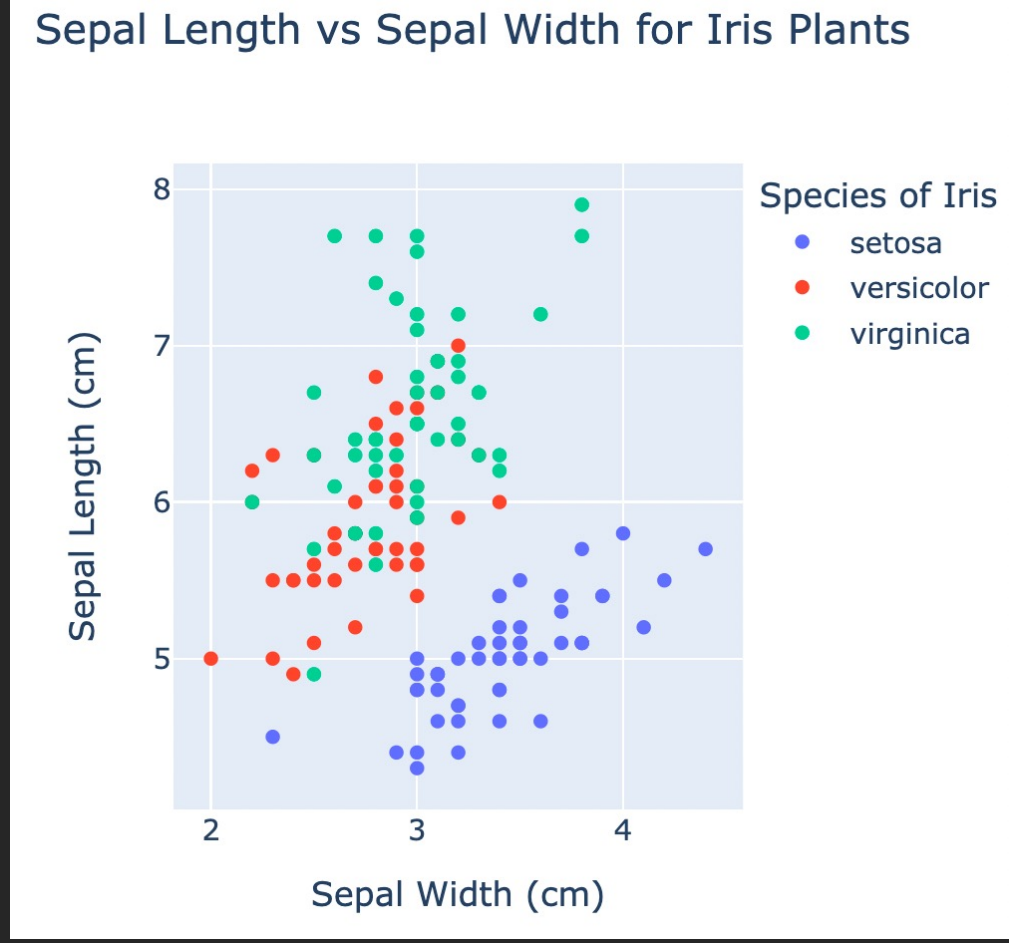


How-to: Change Label Text

- Add an extra option to px.scatter

```
labels = {
  "sepal_length": "Sepal Length (cm)",
  "sepal_width": "Sepal Width (cm)",
  "species": "Species of Iris"
}
```

```
px.scatter(df, x=x, y=y, title=title, color=color, labels=labels)
```



- But our python won't look as nice...

```
labels = dict([('sepal_length','Sepal Length (cm)'), ('sepal_width','Sepal Width (cm)'), ('species','Species of Iris')])
```

Dictionaries in Blockly

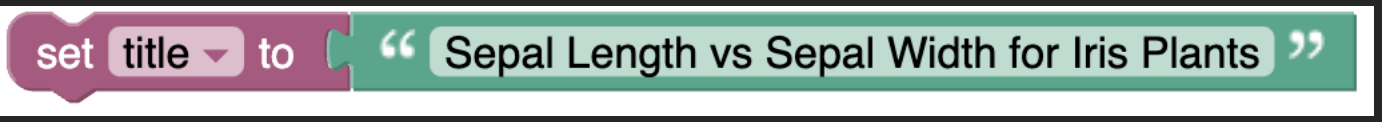
- This is a **dictionary**, a kind of key-value storage.

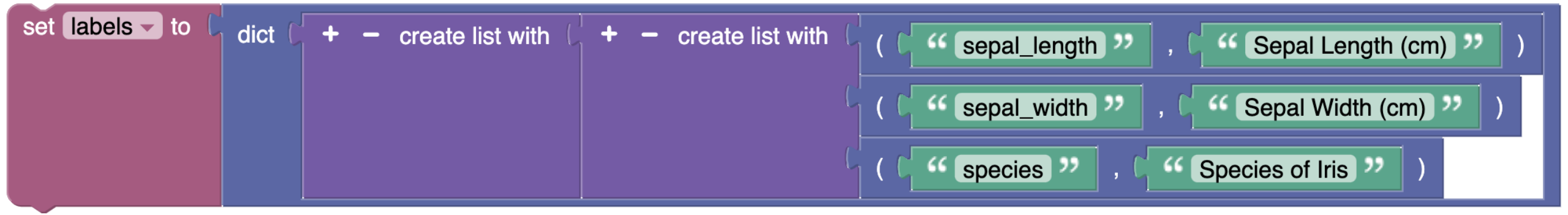
```
labels = {
  "sepal_length": "Sepal Length (cm)",
  "sepal_width": "Sepal Width (cm)",
  "species": "Species of Iris"
}
```

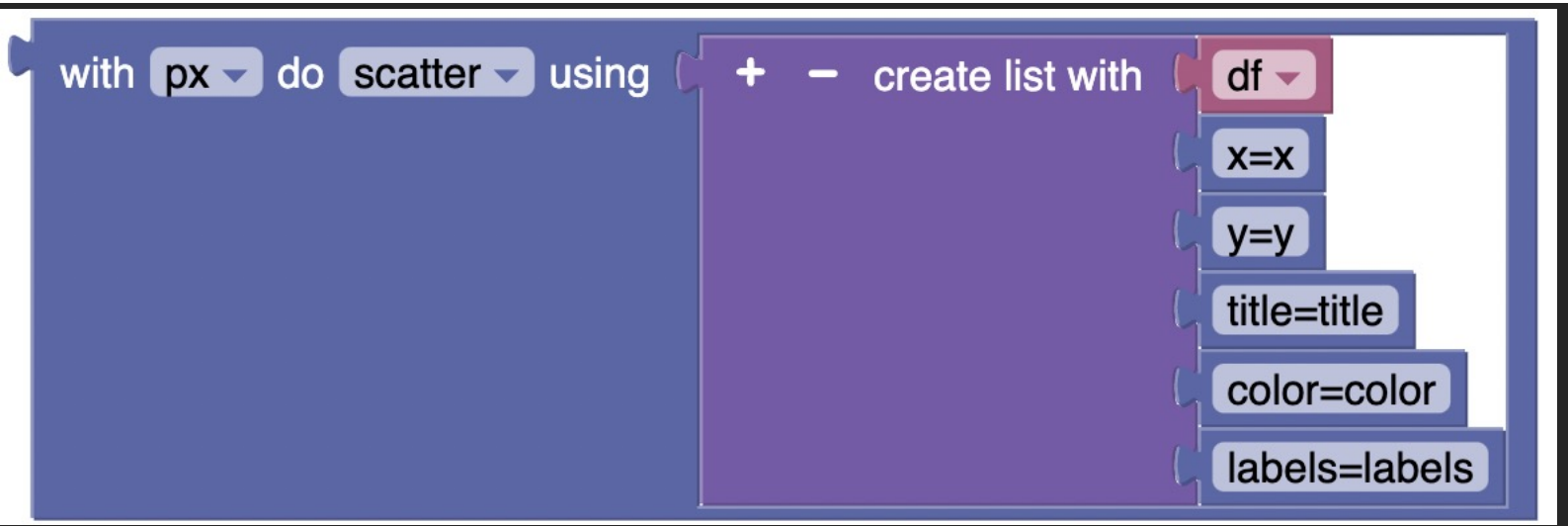
- Blockly doesn't always generate code that is easy to read.

```
labels = dict([('sepal_length','Sepal Length (cm)'), ('sepal_width','Sepal Width (cm)'), ('species','Species of Iris')])
```

Plotly Chart Options in Blockly







Summary

- Parts of a chart
- Some ways to customize Plotly charts
- Plotly chart options with Blockly