

Coloring Student Scores Bar Graph

Learn / Introduction to Data Visualization with Plotly in Python

Course Outline

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Exercise

Coloring student scores bar graph

The previous plot that you created was well received by the school board, but they are wondering if there is a way for you to visually identify good and bad performers.

This would be a great opportunity to utilize color. Specifically, a color scale. You think a scale from red (worst marks) to green (good marks) would be great.

Part of your previous code to create the student scores bar chart has been provided.

The `student_scores` DataFrame is also available. Feel free to print out in the console and inspect it.

Instructions

100 XP

- Create a color scale list from red (RGB code `255, 0, 0`) to a nice green (RGB code `3, 252, 40`).
- Create a `plotly.express` bar chart using the `student_scores` DataFrame.

script.py

Light Mode

```
1 # Create your own continuous color scale
2 my_scale = ['rgb(____)', 'rgb(____)']
3
4 # Create the bar plot
5 fig = px.____(data_frame=____,
6               x='student_name',
7               y='score', title='Student Scores by Student',
8               # Set the color variable and scale
9               color='____',
10              color_continuous_scale=____
11              )
12 # Show the plot
13 fig.show()
```

Run Code Submit Answer

IPython Shell

Slides

In [1]:

Question:

The previous plot that you created was well received by the school board, but they are wondering if there is a way for you to visually identify good and bad performers.

This would be a great opportunity to utilize color, specifically a color scale. You think a scale from red (worst marks) to green (good marks) would be great.

Instructions:

1. Create a color scale list from red (RGB code 255, 0, 0) to green (RGB code

- 3, 252, 40).
2. Create a `plotly.express` bar chart using the `student_scores` DataFrame.
3. Use the `color` parameter to set the score and apply the continuous color scale.
4. Display the plot using `fig.show()`.

Explanation of the Question:

This task involves creating a bar chart of student scores and adding a continuous color scale to visually represent the performance of students. The `color` parameter is set to `score`, and the color scale goes from red (worst scores) to green (best scores).

Answer:

```
# Create your own continuous color scale
my_scale = ['rgb(255, 0, 0)', 'rgb(3, 252, 40)']
```

```
# Create the bar plot
fig = px.bar(
    data_frame=student_scores,
    x='student_name',
    y='score',
    title='Student Scores by Student',
    # Set the color variable and scale
    color='score',
    color_continuous_scale=my_scale
)
```

```
# Show the plot
fig.show()
```

Explanation of the Answer:

The code creates a continuous color scale `my_scale` from red to green. The `color` parameter is set to `score` to apply the color scale to the student scores. The `data_frame` is the `student_scores` DataFrame, with `x` as student names and `y` as their scores. The chart provides a visual representation of scores with color indicating performance.