# Changing annotations with buttons - Hint Updated

## AI-Generated Hint

Have you added the correct annotations for each button to update the graph layout?  
  
# Create annotations  
value\_annotations = [{'text': 'Sept was the best', 'showarrow': True, 'x': 'September', 'y': 345397}]  
volume\_annotations = [{'text': 'Oct was the best', 'showarrow': True, 'x': 'October', 'y': 71900}]  
  
# Create buttons  
my\_buttons = [  
 {'label': "By Sales Value", 'method': "update", 'args': [{}, {"annotations": value\_annotations}]},  
 {'label': "By Sales Volume", 'method': "update", 'args': [{}, {"annotations": volume\_annotations}]}  
]  
  
If this hint doesn't help out, take a look at the solution.

## Updated Question

Create annotations to identify the best months for sales volume (October) and value (September). Create buttons that will update the annotations part of your graph layout, ensuring the relevant annotation object is given to each button.

## Updated Solution

Here is the updated solution:  
  
```python  
import plotly.graph\_objects as go  
  
# Assume sales DataFrame is already loaded with columns: 'Month', 'Sales Volume', 'Sales Value'  
  
# Create the basic figure  
fig = go.Figure()  
  
# Add a trace per metric  
fig.add\_trace(go.Bar(x=sales['Month'], y=sales['Sales Volume'], name='Sales Volume'))  
fig.add\_trace(go.Bar(x=sales['Month'], y=sales['Sales Value'], name='Sales Value'))  
  
# Define annotations for best months  
value\_annotations = [{'text': 'Sept was the best', 'showarrow': True, 'x': 'September', 'y': 345397}]  
volume\_annotations = [{'text': 'Oct was the best', 'showarrow': True, 'x': 'October', 'y': 71900}]  
  
# Create buttons to toggle between annotations  
my\_buttons = [  
 {'label': "By Sales Value", 'method': "update", 'args': [{}, {"annotations": value\_annotations}]},  
 {'label': "By Sales Volume", 'method': "update", 'args': [{}, {"annotations": volume\_annotations}]}  
]  
  
# Add the buttons to the layout  
fig.update\_layout(  
 updatemenus=[{  
 'type': 'buttons',  
 'direction': 'down',  
 'x': 1.3,  
 'y': 0.5,  
 'showactive': True,  
 'buttons': my\_buttons  
 }]  
)  
  
# Show the plot  
fig.show()  
```

## Solution Explanation

1. The `sales` DataFrame contains monthly sales data with columns for 'Month', 'Sales Volume', and 'Sales Value'.  
2. The figure is created using `plotly.graph\_objects`, and two traces are added for 'Sales Volume' and 'Sales Value'.  
3. Two annotations are defined:  
 - `value\_annotations` highlights September as the best month for sales value.  
 - `volume\_annotations` highlights October as the best month for sales volume.  
4. Two buttons are defined to toggle between these annotations:  
 - The 'By Sales Value' button updates the layout with `value\_annotations`.  
 - The 'By Sales Volume' button updates the layout with `volume\_annotations`.  
5. The buttons are added to the layout with a vertical arrangement ('down') for user interactivity.