E-COMMERCE SALES ANALYSIS PROJECT

By : Hrishikesh nayak

Problems to solve

1. You need to calculate the monthly sales of the store and identify which month had the highest sales and which month had the lowest sales.

2. You need to analyze sales based on product categories and determine which category has the lowest sales and which category has the highest sales.

Problems to solve

3. The sales analysis needs to be done based on sub-categories

4. You need to analyze the monthly profit from sales and determine which month had the highest profit.

5. Analyze the profit by category and sub-category.

6. Analyze the sales and profit by customer

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Code JupyterLab Python 3 (ipykernel)

[45]:
```
sales_by_month = data.groupby('Order Month')['Sales'].sum().reset_index()
fig = px.line(sales_by_month,
              x = 'Order Month',
              y = 'Sales',
              title = 'Monthly Sales Analysis')
fig.show()
```

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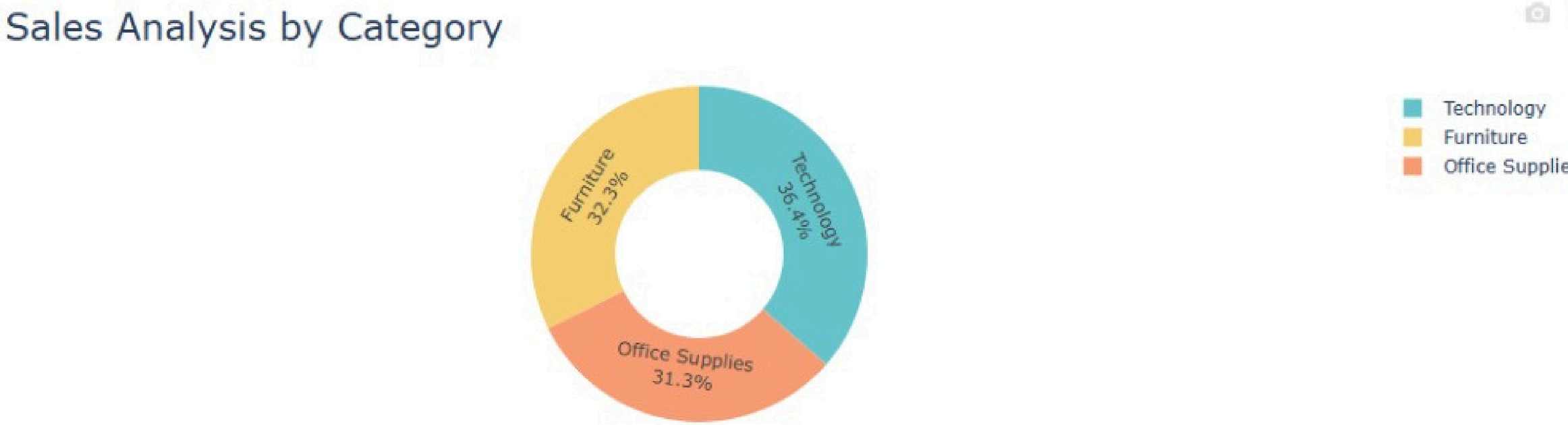
Code JupyterLab Python 3 (ipykern

[60]:
```
fig = px.pie(sales_by_category,
             values = 'Sales',
             names = 'Category',
             hole = 0.5,
             color_discrete_sequence = px.colors.qualitative.Pastel)
fig.update_traces(textposition = 'inside',textinfo = 'percent+label')
fig.update_layout(title_text = 'Sales Analysis by Category', title_font=dict(size=24))

fig.show()
```



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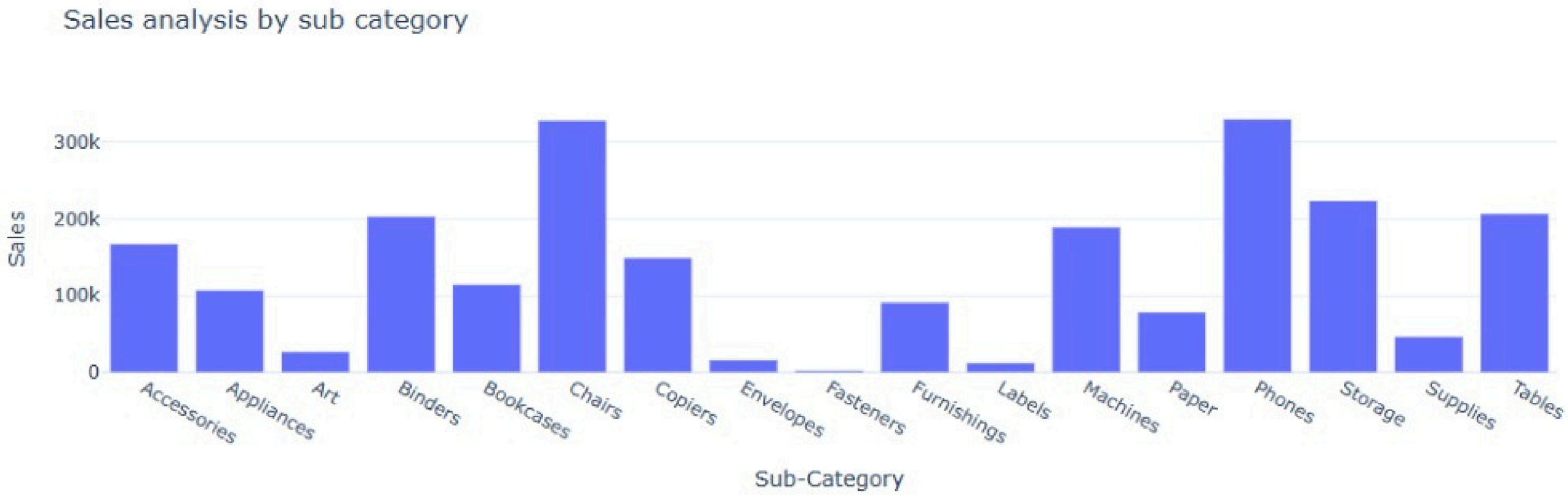
Code JupyterLab Python 3 (ipykern

[75]:
```
fig = px.bar(sales_by_subcategory, x = 'Sub-Category' , y = 'Sales', title = "Sales analysis by sub category")
fig.show()
```



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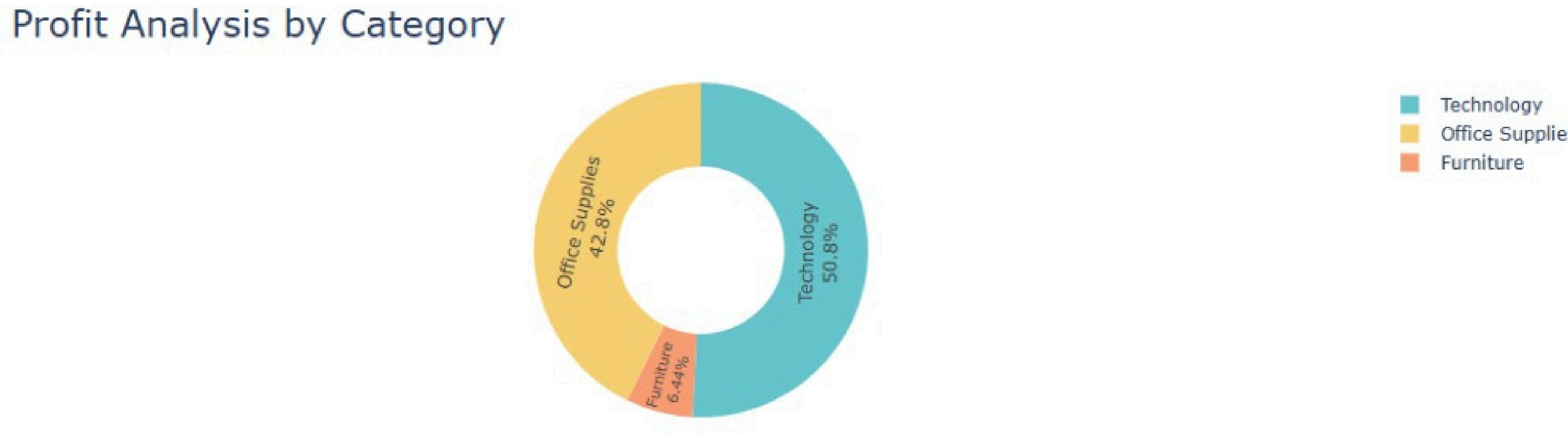
Code JupyterLab Python 3 (ipykern

[103]:
```
fig = px.pie(profit_by_category,
             values = 'Profit',
             names = 'Category',
             hole = 0.5,
             color_discrete_sequence = px.colors.qualitative.Pastel)
fig.update_traces(textposition = 'inside',textinfo= 'percent+label')
fig.update_layout(title_text = 'Profit Analysis by Category', title_font=dict(size=24))

fig.show()
```



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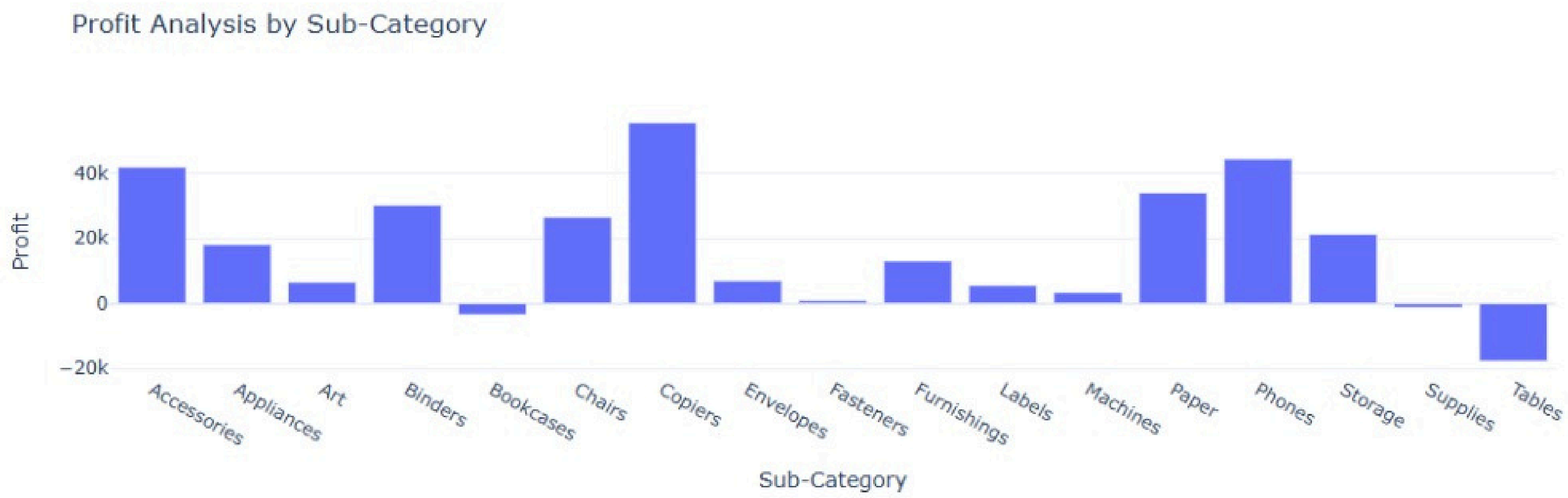
Code JupyterLab Python 3 (ipyker

[107]:
```
profit_by_subcategory = data.groupby('Sub-Category')['Profit'].sum().reset_index()
fig = px.bar(profit_by_subcategory, x ='Sub-Category',
             y = 'Profit',
             title = 'Profit Analysis by Sub-Category')
fig.show()
```



[ ]:

```
fig.add_trace(go.Bar(x=sales_profit_by_segment['Segment'],
                     y=sales_profit_by_segment['Profit'],
                     name='Profit',
                     marker_color=color_palette[1]))

fig.update_layout(title='Sales and Profit Analysis by Customer Segment',
                  xaxis_title='Customer Segment', yaxis_title='Amount')

fig.show()
```