Working Towards Your Project: Your Dashboard

1. **Set Up the Sales Dataset:**
   - You will work with a CSV file containing sales data. Create or obtain a CSV file with sales records that include the following fields: date, product_id, sales_amount, and store_location.
   - Example CSV structure:

```
date,product_id,sales_amount,store_location
2023-09-01,P001,500,New York
2023-09-02,P002,300,Los Angeles
2023-09-03,P003,450,Chicago
```

   - Use Pandas to load the data into a DataFrame, and explore it by calculating basic statistics (e.g., total sales, sales by location, etc.).

Code Example:

```
import pandas as pd
# Load sales data from CSV
sales_data = pd.read_csv('sales_data.csv')
# Display the first few rows of the dataset
print(sales_data.head())
```

2. **Create a Basic Visualization with Dash:**
   - Create a Dash application that visualizes the sales data. For Week 1, the focus is on a basic visualization.
   - Example: Create a bar chart showing total sales by store location or by product.

Code Example for Dash Visualization:

```
import dash
from dash import dcc, html
import plotly.express as px

# Initialize the Dash app
app = dash.Dash(__name__)

# Aggregate sales data by store location
sales_by_location = sales_data.groupby('store_location')['
    sales_amount'].sum().reset_index()

# Create a bar chart
```

```
fig = px.bar(sales_by_location, x='store_location', y='
    sales_amount', title='Sales by Store Location')

# Set up the layout of the app
app.layout = html.Div(children=[
    html.H1(children='Sales Dashboard'),
    dcc.Graph(figure=fig)
])

if __name__ == '__main__':
    app.run_server(debug=True)
```

3. Document the Data and Initial Insights:

- After loading the CSV and visualizing the data, document basic findings, such as which store or product has the highest sales.
- These insights will serve as a baseline for your future visualizations once additional data (e.g., weather) is integrated.

Deliverables: You need to submit the following:

- CSV File: Ensure your CSV file is properly formatted. •
- A link to your colab python notebook that contains a working Dash application displaying basic sales trends as well as a Python script that loads the sales data using Pandas and calculates basic statistics.