

# Python code:

```
import pandas as pd
```

```
import matplotlib.pyplot as plt
```

```
import seaborn as sns
```

Load the CSV file

```
file_path = '/path_to_your_file/supply_chain_data.csv'
```

```
supply_chain_data = pd.read_csv(file_path)
```

Set the style for the plots

```
sns.set(style="whitegrid")
```

## 1. Inventory Levels: Stock levels across different SKUs

```
plt.figure(figsize=(10, 6))
```

```
sns.barplot(x='SKU', y='Stock levels', data=supply_chain_data, palette='viridis')
```

```
plt.title('Inventory Levels Across SKUs')
```

```
plt.xlabel('SKU')
```

```
plt.ylabel('Stock Levels')
```

```
plt.xticks(rotation=45, ha='right')
```

```
plt.tight_layout()
```

```
plt.savefig('inventory_levels_across_skus.png')
```

```
plt.show()
```

## 2. Order Fulfillment: Lead times compared to the number of products sold

```
plt.figure(figsize=(10, 6))
```

```
sns.scatterplot(x='Lead times', y='Number of products sold', hue='Product type',  
data=supply_chain_data, palette='deep')
```

```
plt.title('Order Fulfillment: Lead Times vs. Products Sold')
```

```
plt.xlabel('Lead Times (Days)')  
plt.ylabel('Number of Products Sold')  
plt.tight_layout()  
plt.savefig('order_fulfillment.png')  
plt.show()
```

### 3. Supplier Performance: Supplier lead time and defect rates

```
plt.figure(figsize=(10, 6))  
  
sns.barplot(x='Supplier name', y='Defect rates', hue='Inspection results',  
data=supply_chain_data, palette='coolwarm')  
  
plt.title('Supplier Performance: Defect Rates by Supplier')  
  
plt.xlabel('Supplier Name')  
  
plt.ylabel('Defect Rates (%)')  
  
plt.xticks(rotation=45, ha='right')  
  
plt.tight_layout()  
  
plt.savefig('supplier_performance.png')  
  
plt.show()
```

### 4. Transportation Efficiency: Transportation modes and associated costs

```
plt.figure(figsize=(10, 6))  
  
sns.barplot(x='Transportation modes', y='Costs', data=supply_chain_data,  
palette='magma')  
  
plt.title('Transportation Efficiency: Costs by Mode')  
  
plt.xlabel('Transportation Mode')  
  
plt.ylabel('Costs ($)')  
  
plt.xticks(rotation=45, ha='right')  
  
plt.tight_layout()  
  
plt.savefig('transportation_efficiency.png')  
  
plt.show()
```

## 5. Lead Times Over SKUs

```
plt.figure(figsize=(10, 6))

sns.lineplot(x='SKU', y='Lead times', hue='Product type', data=supply_chain_data,
marker='o', palette='muted')

plt.title('Lead Times Over SKUs')

plt.xlabel('SKU')

plt.ylabel('Lead Times (Days)')

plt.xticks(rotation=45, ha='right')

plt.tight_layout()

plt.savefig('lead_times_over_skus.png')

plt.show()
```

## 6. Manufacturing Lead Time Over SKUs

```
plt.figure(figsize=(10, 6))

sns.lineplot(x='SKU', y='Manufacturing lead time', hue='Product type',
data=supply_chain_data, marker='o', palette='dark')

plt.title('Manufacturing Lead Time Over SKUs')

plt.xlabel('SKU')

plt.ylabel('Manufacturing Lead Time (Days)')

plt.xticks(rotation=45, ha='right')

plt.tight_layout()

plt.savefig('manufacturing_lead_time_over_skus.png')

plt.show()
```