**Problem Statement:** Visualization of patient data like blood pressure, sugar levels, and weight to identify health trends.

**Personal Details:**

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**Introduction**

In healthcare, monitoring patient data such as blood pressure, sugar levels, and weight is crucial for identifying health trends and making informed decisions. This report focuses on visualizing patient data to provide insights into their health status over time. The analysis includes line plots for blood pressure, sugar levels, and weight based on a CSV dataset.

**Methodology**

To visualize the patient data, we used Python programming in Google Colab. The approach includes:

1. Uploading the CSV file containing patient data.

2. Loading the data into a DataFrame using the pandas library.

3. Visualizing the data using matplotlib and seaborn libraries to create line plots for blood pressure, sugar levels, and weight.

**Code**

python

```
# Step 1: Upload the CSV file to Google Colab

from google.colab import files

uploaded = files.upload()  # This will open a file upload dialog to select your CSV file


# Step 2: Import the necessary libraries

import pandas as pd

import matplotlib.pyplot as plt

import seaborn as sns


# Step 3: Load the CSV file into a DataFrame

df = pd.read_csv(next(iter(uploaded)))  # Read the uploaded CSV file into a DataFrame


# Step 4: Visualize Blood Pressure
```

```python
plt.figure(figsize=(10, 6))  # Set the figure size

sns.lineplot(data=df, x='PatientID',
y='BloodPressure (mmHg)', marker='o')  # Create a
line plot for blood pressure

plt.title('Blood Pressure of Patients')  # Set the title
of the plot

plt.xlabel('Patient ID')  # Label the x-axis

plt.ylabel('Blood Pressure (mmHg)')  # Label the y-
axis

plt.grid(True)  # Add grid lines to the plot

plt.show()  # Display the plot


# Step 5: Visualize Sugar Levels

plt.figure(figsize=(10, 6))  # Set the figure size

sns.lineplot(data=df, x='PatientID', y='SugarLevels
(mg/dL)', marker='o')  # Create a line plot for sugar
levels

plt.title('Sugar Levels of Patients')  # Set the title of
the plot

plt.xlabel('Patient ID')  # Label the x-axis
```

plt.ylabel('Sugar Levels (mg/dL)')  # Label the y-axis

plt.grid(True)  # Add grid lines to the plot

plt.show()  # Display the plot


# Step 6: Visualize Weight

plt.figure(figsize=(10, 6))  # Set the figure size

sns.lineplot(data=df, x='PatientID', y='Weight (kg)', marker='o')  # Create a line plot for weight

plt.title('Weight of Patients')  # Set the title of the plot

plt.xlabel('Patient ID')  # Label the x-axis

plt.ylabel('Weight (kg)')  # Label the y-axis

plt.grid(True)  # Add grid lines to the plot

plt.show()  # Display the plot

**Output/Result**

Below are the screenshots of the visualizations:

1. **Blood Pressure of Patients**
2. **Sugar Levels of Patients**

## 3. Weight of Patients

Screenshots:

Blood Pressure of Patients