**Task: Analyzing Sales Data with Matplotlib, NumPy, and Pandas**

**Description:**

In this task, students will work with a dataset containing sales data for a fictional company. The objective is to use Matplotlib, NumPy, and Pandas to analyze and visualize the data. The dataset contains information about the sales of different products over a certain period.

**Dataset:**

The dataset (sales\_data.csv) contains the following columns:

Product\_ID: Unique identifier for each product.

Product\_Name: Name of the product.

Units\_Sold: Number of units sold for each product.

Revenue: Total revenue generated from sales of each product.

**Tasks:**

Load the Dataset:

Use Pandas to load the CSV file ('sales\_data.csv') into a DataFrame.

Data Exploration:

Display the first few rows of the DataFrame to understand the data's structure.

Check for any missing values in the dataset and handle them appropriately.

Get statistical summary of the dataset using NumPy functions like mean, median, min, max, etc.

Use Matplotlib to create a histogram showing the distribution of the 'Units\_Sold' column.

Use Matplotlib to create a box plot to identify any outliers in the 'Revenue' column.

**Data Manipulation:**

Create a new column 'Total\_Price' that represents the total price (price per unit \* units sold) for each product.

Calculate and display the top 5 products with the highest total revenue.

Calculate and display the average units sold per product.

**Data Visualization:**

Use Matplotlib to create a bar chart showing the total revenue generated by each product.

Use Matplotlib to create a line chart showing the trend of 'Units\_Sold' over time (assuming a time column is present in the dataset).

Use Matplotlib to create a pie chart showing the distribution of product categories (you can create categories based on the product names).