EXPERIMENT-10

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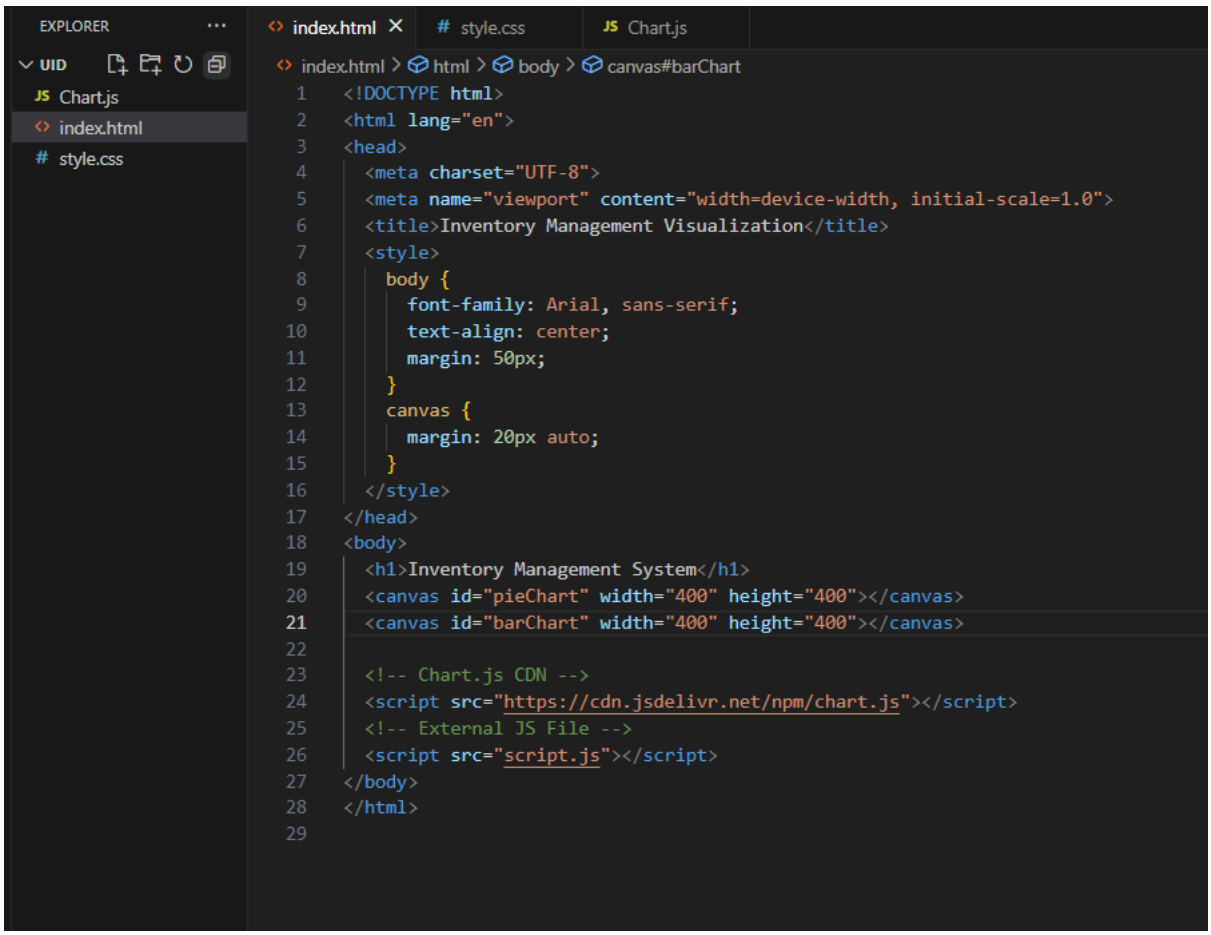
Create a data visualization (e.g., pie charts, bar graphs) for an inventory management system using javascript

AIM:

The aim is to create data visualizations, such as pie charts and bar graphs, for an inventory management system using JavaScript.

PROCEDURE:

Step 1: Set Up Your HTML File First, create an HTML file to hold your canvas for the chart and include Chart.js.



Step 2: Create the JavaScript File for Charts Next, create a JavaScript file (script.js) to handle the data visualization logic.

OUTPUT:

1. Inventory Distribution – Pie Char:

Description:
The pie chart visually represents the proportional distribution of inventory items across various categories. It is a high-level summary used for understanding the overall stock makeup at a glance.

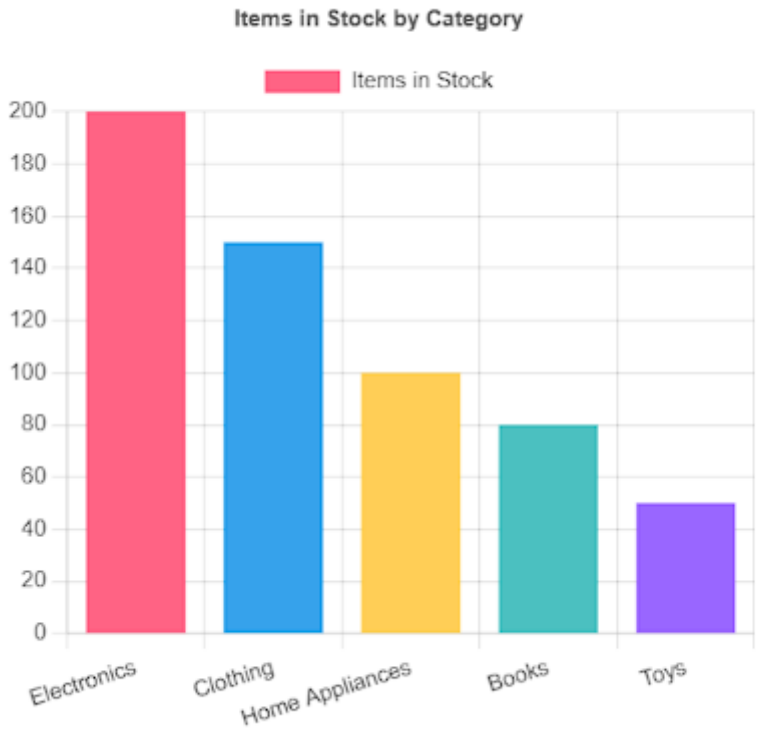
Chart Components:

- **Title:** *Inventory Management System*
- **Legend:** Shows the color codes for each category:
    - Electronics (Pink)
    - Clothing (Blue)
    - Home Appliances (Yellow)
    - Books (Teal)
    - Toys (Purple)

- **Purpose:** Helps in quickly identifying the dominant inventory category and overall allocation of stock.

Insight Example:
From the chart, Electronics and Clothing appear to occupy the largest sections, indicating these categories have the most inventory.

2. Items in Stock by Category – Bar Chart



Description:
The bar chart provides a detailed count of items available in stock for each product category. It is helpful for inventory tracking and restocking decisions.

Chart Components:

- **Title:** *Items in Stock by Category*
- **Legend:** Indicates that the bars represent the number of items in stock.
- **Axes:**
    - X-axis: Categories – Electronics, Clothing, Home Appliances, Books, Toys.

    - Y-axis: Quantity of items (0 to 200 scale).
- **Purpose:** Allows comparison between the stock levels of different categories.

Insight Example:
The bar chart clearly shows:

- **Electronics** has the highest stock (~200 items).
- **Toys** has the lowest (~50 items).
  This highlights areas of potential overstock or the need for replenishment.