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**Assignment 3: Data Visualization using Python**

**Title:**

Data Visualization using Scatter, Bar, Box, Pie, and Line Charts

**Aim:**

To visualize customer data using various plots for better understanding and insights.

**Course Outcome:**

**CO3 L2** – Apply data visualization techniques to explore data distribution and relationships.

CODE- From Visual Studio code.

**Graphs Included**

| **Chart Type** | **Purpose** |
| --- | --- |
| **Scatter Plot** | Visualizes relationship between income and spending |
| **Bar Plot** | Compares gender distribution |
| **Box Plot** | Shows age spread across genders |
| **Pie Chart** | Proportional view of male vs female |
| **Line Chart** | Visualizes age trend over customer ID |

**Conclusion:**

* The dataset was successfully visualized using 5 different types of charts.
* Insights such as spending patterns and gender distribution were revealed.
* Visualization helped in understanding trends and data spread effectively.