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**OBJECTIVE**

This Sales Dashboard project provides a user-friendly interface to explore and analyze sales data, helping stakeholders make informed decisions based on the presented insights. The use of Streamlit makes it easy to interact with the data and gain valuable insights quickly.

**1. Introduction**

This project report presents a Sales Dashboard created using Python, utilizing libraries such as Pandas, Plotly Express, and Streamlit. The dashboard provides insights into sales data from a Supermarket.

**2. Project Overview**

The Sales Dashboard includes the following features:

* Sidebar filters for City, Customer Type, and Gender.
* Key Performance Indicators (KPIs) displayed at the top.
* Sales by Product Line presented as a bar chart.
* Sales by Hour displayed as a bar chart.

**3. Code Explanation**

Importing Libraries

The required libraries are imported:

* Pandas for data manipulation.
* Plotly Express for data visualization.
* Streamlit for creating the web-based dashboard.

Reading Excel Data

Data is read from an Excel file named "supermarkt\_sales.xlsx" using Pandas. The data is preprocessed and an 'hour' column is added.

Sidebar Filters

Filters for City, Customer Type, and Gender are created using Streamlit's sidebar functionality. Data is filtered based on user selections.

Main Page

The main page displays KPIs, Sales by Product Line, and Sales by Hour.

**4. Key Performance Indicators (KPIs)**

* Total Sales: The sum of total sales.
* Average Rating: The mean rating displayed using stars.
* Average Sales Per Transaction: The mean total sales per transaction.

**5. Sales by Product Line (Bar Chart)**

A bar chart shows sales by product line, with the product lines on the y-axis and total sales on the x-axis.

**6. Sales by Hour (Bar Chart)**

A bar chart displays sales by hour, with hours on the x-axis and total sales on the y-axis.

**7. Conclusion**

The Sales Dashboard provides valuable insights into supermarket sales data, allowing users to filter data based on various criteria and visualize it through KPIs and charts.

**8. Appendix**

**Code**: The Python code used to create the Sales Dashboard.

**References**

* Pandas: <https://pandas.pydata.org/>
* Plotly Express: <https://plotly.com/python/plotly-express/>
* Streamlit: <https://streamlit.io/>
* Emoji Cheat Sheet: <https://www.webfx.com/tools/emoji-cheat-sheet/>