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        0: "import streamlit as st\n        "\n        1: "import pandas as pd\n        "\n        2: "import seaborn as sns\n        "\n        3: "import matplotlib.pyplot as plt\n        "\n        4: "\n        "\n        5: "# Load data\n        "\n        6: "df = pd.read_csv("product_info.csv")\n        "\n        7: "\n        "\n        8: "# Drop missing\n        "\n        9: "df = df.dropna(subset=["brand_name", "primary_category", "rating", "child_max_price"])\n        "\n        10: "\n        "\n        11: "# Sidebar filters\n        "\n        12: "st.sidebar.title("Filters")\n        "\n        13: "brands = st.sidebar.multiselect("Select Brands", options=df["brand_name"].unique(), default=df["brand\n        "\n        14: "categories = st.sidebar.multiselect("Select Categories", options=df["primary_category"].unique(), def\n        "\n        15: "price_range = st.sidebar.slider("Price Range", float(df["child_max_price"].min()), float(df["child_ma\n        "\n        16: "\n        "\n        17: "# Filter data\n        "\n        18: "filtered_df = df["
```

```

19 : "      (df["brand_name"].isin(brands)) &
      "

20 : "      (df["primary_category"].isin(categories)) &
      "

21 : "      (df["child_max_price"].between(price_range[0], price_range[1]))
      "

22 : "]"
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23 : "
      "

24 : "# Metrics
      "

25 : "st.title("Sephora Product Explorer")
      "

26 : "st.metric("Average Rating", round(filtered_df["rating"].mean(), 2))
      "

27 : "st.metric("Average Price", f"${round(filtered_df['child_max_price'].mean(), 2)}")
      "

28 : "
      "

29 : "# Scatter plot
      "

30 : "st.subheader("Rating vs. Price")
      "

31 : "fig1, ax1 = plt.subplots()
      "

32 : "sns.scatterplot(data=filtered_df, x="child_max_price", y="rating", ax=ax1, color="purple")
      "

33 : "st.pyplot(fig1)
      "

34 : "
      "

35 : "# Rating histogram
      "

36 : "st.subheader("Rating Distribution")
      "

37 : "fig2, ax2 = plt.subplots()
      "

38 : "sns.histplot(filtered_df["rating"], bins=20, kde=True, ax=ax2, color="orange")
      "

39 : "st.pyplot(fig2)
      "

40 : "
      "

41 : "# Show filtered data
      "

42 : "st.subheader("Filtered Products")
      "

43 : "st.dataframe(filtered_df[["product_name", "brand_name", "rating", "child_max_price"]].reset_index(drop=True))
      "

44 : "
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1 : {

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