

✦ Project Title: Product Analysis with Python

📁 Project Overview:

This project involves analyzing a Product dataset to uncover meaningful insights using Python for data analysis.

📊 Dataset Provided:

1. **Products Dataset** (`products.csv`)
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🔍 Project Tasks:

Part 1: Data Cleaning & Preparation

1. **Loading the Dataset**
 - Load the dataset using pandas.
 - Remove missing values and check for duplicates.
 - Display basic information about the dataset.
 2. **Data Formatting**
 - Ensure numerical columns are correctly formatted.
 - Handle missing or inconsistent data if necessary.
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Part 2: Product Analysis

1. **Category Analysis**
 - Identify the most common product categories.
 - Display the top 10 categories by the number of products.
 2. **Price Analysis**
 - Find the top 10 most expensive products.
 - Visualize the distribution of product prices using histograms.
 - Compare average prices across different categories.
 3. **Correlation Analysis (If Applicable)**
 - Analyze if there's any correlation between different numerical features (if present).
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Part 3: Saving Insights

1. Save your findings and visualizations as images or text files.
2. Prepare a short report summarizing your findings.

Expected Deliverables:

- Python scripts performing all the tasks mentioned above.
 - Visualizations (saved as images).
 - A short report summarizing your findings.
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