

Diamond Market Analysis

You are a data analyst at **GemValue Analytics**, a market research firm helping jewelry businesses understand pricing trends in the diamond market. You've received a large dataset of over 50,000 diamonds with various physical and grading attributes. Your job is to **analyze pricing drivers, detect trends, and report insights** using Python and data visualization

Learning Objectives

By the end of the assignment, you should be able to:

- Clean and preprocess a structured dataset
 - Use group-based aggregation to extract insights
 - Visualize relationships between multiple features
 - Detect outliers, skewed distributions, and multicollinearity
 - Explore how diamond features impact price
 - State the top three features affecting price
 - Use visual tools to tell a compelling data-driven story
-

Tools Allowed

- Python (Pandas, Seaborn, Matplotlib)
 - Jupyter Notebook
-

Deliverables

- A Jupyter Notebook or containing all analysis code, visualizations, and interpretations
- A PowerPoint presentation report summarizing your findings

- Minimum of **10 visualizations** included
- Maximum of **20 slides**
- Presentation should clearly communicate your analytical process and business insights in a way accessible to non-technical stakeholders

Submission: <https://forms.gle/TJR9Re2apWvUNskB9>