

DATASET DESCRIPTION

Problem Statement:

Selecting the right laptop can be challenging for both tech and non-tech users due to the wide variety of models and specifications. This project aims to create a machine learning model that simplifies the decision-making process, helping users choose the best laptop based on their specific needs, preferences and price range.

Source of Dataset:

The analysis is based on a dataset sourced from Kaggle that provides comprehensive specifications and prices of various laptop models. Kaggle is a popular online community and platform for data science and machine learning enthusiasts, offering datasets and coding environments to help users improve their data analysis and modeling skills.

(Dataset sourced from Kaggle)

<https://www.kaggle.com/datasets/talhabarkaatahmad/laptop-prices-dataset-october-2023>

Dataset Description:

The dataset includes 4,446 laptop listings with detailed specifications and prices, enabling analysis of key features that influence pricing and overall value. Each entry captures various attributes of laptops, such as brand, model, screen size, and performance characteristics. This data will support informed recommendations on laptop selection based on user requirements and budget.

Attributes Description:

1. Brand: Manufacturer or brand (e.g., HP, Apple, Dell).

Significance: Important for assessing brand reputation and reliability in decision-making.

2. Model: Specific model name or identifier for each laptop.

Significance: Helps in comparing specific models within a brand.

3. Screen size: Size of the laptop screen (e.g., 14", 15.6").

Significance: Affects portability and user experience.

4. Color: Color of the laptop.

Significance: May influence aesthetic preferences.

5. Hard disk: Storage capacity (e.g., 256 GB, 1 TB).

Significance: Key for assessing storage needs.

6. CPU: Type of CPU (e.g., Intel Core i5).

Significance: Crucial for evaluating performance.

7. RAM: Amount of RAM (e.g., 8 GB, 16 GB).

Significance: Impacts multitasking and performance.

8. OS: Operating system (e.g., Windows 11, macOS).

Significance: Influences user experience and software compatibility.

9. Special features: Unique features (e.g., Backlit Keyboard).

Significance: Adds value and differentiates products.

10. Graphics: Type of GPU (e.g., Integrated, Dedicated).

Significance: Important for graphic-intensive applications.

11. Graphics coprocessor: Details about graphics coprocessor.

Significance: Adds information on graphics performance.

12. CPU speed: CPU speed (e.g., 1.8 GHz).

Significance: Influences processing speed and performance.

13. Rating: Customer rating on a scale of 1 to 5.

Significance: Reflects consumer satisfaction.

14. Price: Price of the laptop (e.g., \$999.99).

Significance: Central variable for budget optimization in the project.