

Acer Laptop Data Analysis Project

Step 1. Firstly we load the dataset into Excel and filter to Acer laptops.

Dataset: laptop_prices.csv | Total Acer rows found: 101

Excel Snapshot: Acer laptops (Preview, 20 rows)						
Product	Price_euros	Ram	CPU_freq	Inches	OS	Weight
Aspire 3	400.0	4	3.0	15.6	Windows 10	2.1
Swift 3	770.0	8	1.6	14.0	Windows 10	1.6
Aspire 3	367.0	4	2.7	15.6	Linux	2.1
Aspire A515-51G	682.0	4	1.6	15.6	Windows 10	2.2
Aspire A515-51G	841.0	8	1.8	15.6	Windows 10	2.2
Aspire 3	384.0	4	2.4	15.6	Windows 10	2.4
Aspire E5-475	389.0	8	2.0	14.0	Windows 10	2.1
Aspire A515-51G-32MX	530.0	4	2.7	15.6	Windows 10	2.2
Aspire 3	395.0	4	3.0	15.6	Windows 10	2.1
Aspire 5	689.0	8	1.8	15.6	Windows 10	2.2
Spin 5	847.0	8	1.6	13.3	Windows 10	1.5
Spin 3	479.0	6	2.4	15.6	Windows 10	2.1
Aspire 3	451.0	4	3.0	15.6	Windows 10	2.1
Swift 3	884.0	8	1.8	14.0	Windows 10	1.6
Aspire A515-51G-37JS	572.0	4	2.7	15.6	Windows 10	2.2
Aspire 5	655.0	4	2.7	17.3	Windows 10	3.0
Aspire A315-51	447.0	4	2.0	15.6	Windows 10	2.1
Aspire A517-51G	805.0	4	1.6	17.3	Windows 10	3.0
Aspire A315-31	348.0	4	1.1	15.6	Windows 10	2.1
Aspire 3	363.51	4	1.1	15.6	Windows 10	2.1

Note: The Excel snapshot above shows the first 20 Acer laptop rows (formatted).

You can edit/add your name, roll number and college details on the title page later.

Step 2. Conditional Formatting (Excel)

- !. Duplicate value – Product highlighted in orange.
- !. Greater than – Price greater than Acer mean price highlighted red.
- !!! Less than – RAM less than 4 GB highlighted blue.
- !V Between – Price between 25th and 75th percentiles highlighted yellow.

Excel Snapshot: Conditional Formatting (simulated)						
Product	Price_euros	Ram	CPU_freq	Inches	OS	Weight
Aspire 3	400.0	4	3.0	15.6	Windows 10	2.1
Swift 3	770.0	8	1.6	14.0	Windows 10	1.6
Aspire 3	367.0	4	2.7	15.6	Linux	2.1
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Aspire 5	655.0	4	2.7	17.3	Windows 10	3.0
Aspire A315-51	447.0	4	2.0	15.6	Windows 10	2.1
Aspire A517-51G	805.0	4	1.6	17.3	Windows 10	3.0

Legend: Red = Price > mean | Yellow = Price in IQR | Blue = RAM < 4GB | Orange = Duplicate model

Step 3. Averages & Key Metrics

Key Averages (Acer subset)

Average Price: 633.46 EUR

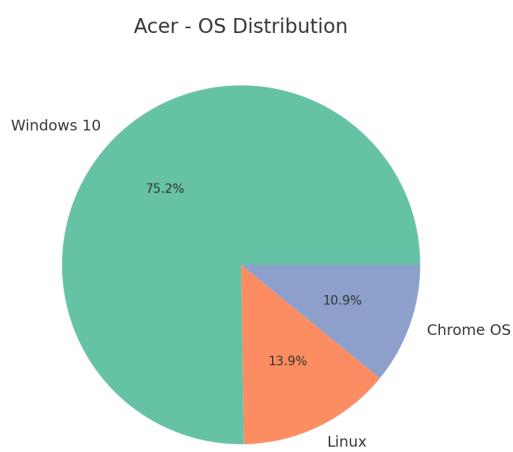
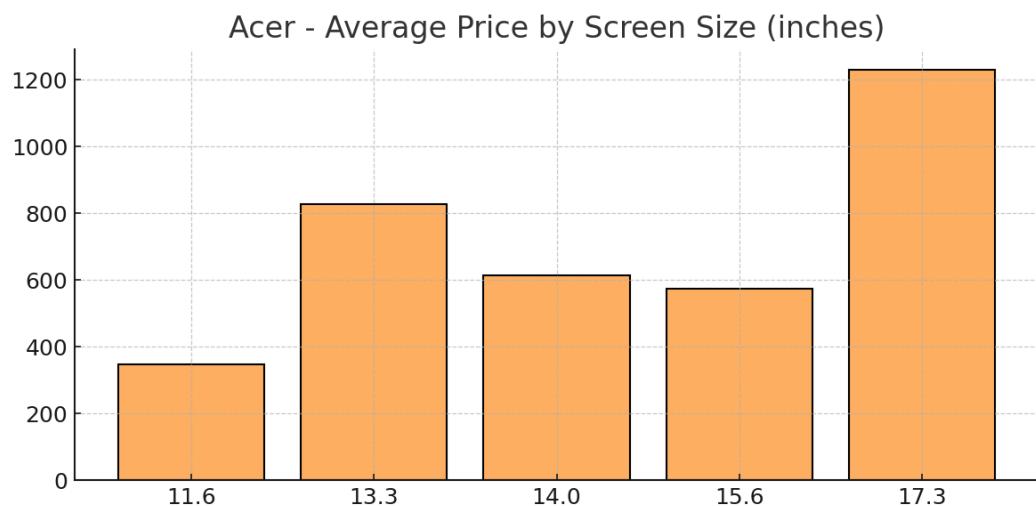
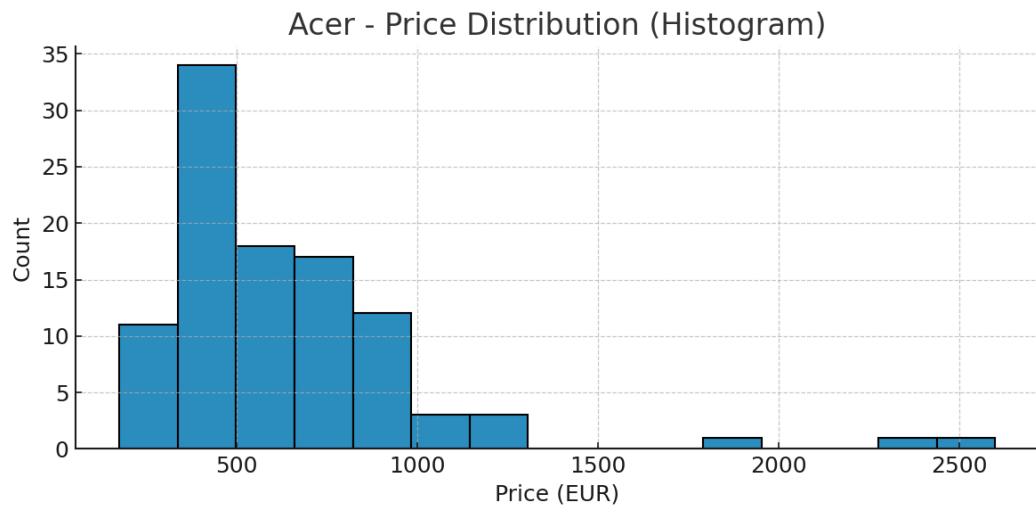
Average RAM: 6.02 GB

Average CPU

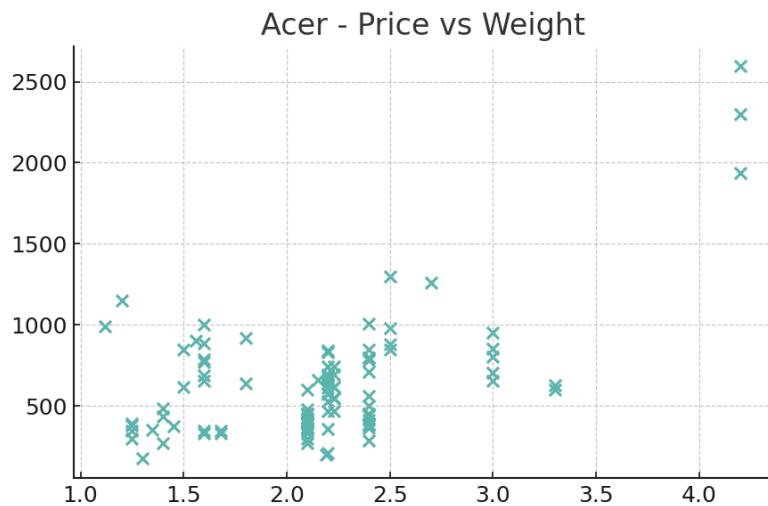
Top Acer (Price > mean) — sample

Product	Price_euros	Ram	CPU_freq
Predator G9-793	2599.0	16	2.8
Predator G9-793	2299.0	16	2.8
Predator 17	1935.0	16	2.6
Aspire VX5-591G	1299.0	16	2.5
Nitro 5	1260.0	8	2.8
SP714-51 (i7-7Y75/8GB/256GB/FH	1149.0	8	1.3
Aspire F5-573G-510L	1009.0	12	2.5
Spin 5	999.0	8	1.6

Step 4. Pivot Tables & Charts



Step 4. Pivot Tables & Charts (contd.)



Step 2. After completing charts then we find data validation

Validation checks performed: missing prices, non-positive prices, suspicious RAM values, missing product nam

Acer	Swift 7	Ultrabook	13.3	8	Windows 10	1.12	989.0	Full HD	1920
Acer	Aspire E5-576G	Notebook	15.6	8	Windows 10	2.23	742.0	Full HD	1920
Acer	Aspire 7	Notebook	15.6	8	Linux	2.4	779.0	Full HD	1920
Acer	Aspire E5-576G	Notebook	15.6	8	Windows 10	2.2	832.0	Full HD	1920
Acer	Aspire R7	2 in 1 Convertible	13.3	8	Windows 10	1.6	689.0	Full HD	1920
Acer	Aspire A315-51	Notebook	15.6	4	Linux	2.1	390.0	Standard	1366
Acer	Nitro AN515-51	Gaming	15.6	8	Windows 10	2.5	846.0	Full HD	1920
Acer	Aspire 5	Notebook	17.3	4	Windows 10	3.0	702.0	Full HD	1920

Acer	Spin SP11-31	2 in 1 Convertible	11.6	4	Windows 10	1.25	349.0	Full HD	1920
Acer	Aspire 1	Notebook	14.0	4	Windows 10	1.6	329.0	Full HD	1920
Acer	Swift SF114-31-P5HY	Notebook	14.0	4	Windows 10	1.6	349.0	Standard	1366
Acer	CBS-132T-C9KK (N3160/4GB/32 2 in 1 Convertible		11.6	4	Chrome OS	1.25	379.0	Standard	1366
Acer	Extensa EX2540	Notebook	15.6	4	Windows 10	2.4	450.0	Standard	1366
Acer	Swift 3	Ultrabook	14.0	8	Windows 10	1.8	919.0	Full HD	1920
Acer	A715-71G-590H (i5-7300HQ/8G Gaming		15.6	8	Linux	2.4	709.0	Full HD	1920
Acer	Aspire 3	Notebook	15.6	4	Linux	2.1	412.0	Standard	1366

Conclusion & Recommendations

- Total Acer laptops analyzed: 101
- Average price: 633.46 EUR | Average RAM: 6.02 GB | Average CPU: 2.13 GHz
- Recommendations: Clean missing prices, standardize RAM/CPU units, highlight top/budget models in present

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