BASIC DESCRIPTION:

UNIVARIATE:

1. PRICE:
   1. Price ranges from 9271 to 324955 and avg price being 59946.89
2. **Company: Lenovo, Dell, Hp are top three brands with 23%,23%,21% share respectively.**
3. **Type: More than 50% are Notebook whereas gaming and Ultrabook combines for next 30%.**
4. Inches: Inches ranges from 10 to 18 with average around 15.14 and majority of the laptops lies between 16-18 inches followed by 13-15 and least being 10-12.
5. **Touchscreen: Near about 15% of the laptops have touchscreen.**
6. **CPU BRAND: 95 % of the laptops have intel processor in them where as 5% have AMD**
7. CPU Name: core I7 and core I5 being the top ones with 40% and 32% share.
8. **Ram - Major laptops have 8GB ram with total share of 38% followed by 4GB and 16GB with share of 19% and 14%**
9. **Memory type: about 50% of the laptops have SSD type storage where as 29% are HDD only and 16% are Hybrid with 6% being flash storage devices.**
10. Primary storage: 37% laptops have primary storage as 256 GB, 1GB being second with 19%.
11. **Secondary storage: near about 16% laptops have secondary storage available and if they do have secondary memory 90% of them have 1TB and 7% have 2TB.**
12. GPU: 55% Laptop use intel GPU’s where as 31% use AMD’s GPU’s rest are NVidia and others.
13. Ops: 86% of the laptops have windows as a operating system in them.
14. Weights: 0.69 kg to 4.70 kg with mean being 2.044984 and std being 0.6701 kg

Bivariate:

1. **Price vs company**: Razor, LG, MSI, GOOGLE, APPLE being the costliest laptops with razors each laptop cost as much as 180k.
2. **Price vs type:** Workstation, Gaming and Ultrabook being the top three expensive laptops with workstations being as high as 120k per laptop
3. **Price vs Touchscreen:** For laptops with touch the price is about 35% higher than the laptops without touchscreen.
4. **Price vs CPU\_BRAND:** price of laptops with intel CPU are significantly higher than the AMD
5. **Price vs memory type**: Hybrid laptops being most expensive followed by the SSD whereas HDD and flash storage are considerably cheaper.
6. **Price vs GPU brand:** Laptops with NVIDIA GPU are considerably costlier followed by intel and AMD.
7. **PRICE VS OS:** MAC laptops are expensive than windows and Linux operated ones.
8. **Work station and gaming laptops have faster CPU’s.**
9. Linear relationship between CPU SPEED AND RAM.
10. Avg processor speed for the memory type is such hybrid, SSD, HDD then flash storage.
11. Mac laptops on an average has lower CPU speed.

1. **Inches vs company:** Msi ,Fujitsu, Asus have largest screens on an average where as google and apple laptops are smaller in size.
2. **Inches vs type:** Gaming, Workstation laptops have largest screens where as Ultrabook and netbook have smallest screens
3. **Inches vs touchscreen:** Laptops with touchscreen are significantly smaller with median screen size being **11** inches whereas laptops without touchscreen have screen size of **16** inches.
4. Inches vs ram: linear relation of ram with screen size.
5. Inches vs touchscreen: laptops AMD and Nvidia processor larger median screen size of 16 inches where as intel and ARM has screen size of 14 and 12 inches respectively.
6. **Inches vs Os:** Mac laptops are generally smaller in size with median size of about 13 inches else the median size is 16 inches.
7. **Inches vs weight**: there is a positive relation between inches and weight.

**Categorical categorical**

1. **CPU brand Vs gpu brand: Laptops that comes with AMD CPU’s have AMD’s GPU as well where as 57% laptops with intel CPU has intel GPU as well AND 32% NVIDIA GPU. In fact NVidia GPU’s are only in laptops with intel CPU**