**Problem Statement**

John is the owner of the Electronics shops. He has collected the data of sale. He opened his shop in 1990. Now he wanted to find which item sold the most out of all electronic items. He wants to do analysis on the mobile data. That data contains various columns such as battery power, clock speed, internal memory , ram size and touch screen etc. He wants to find various patterns and trends from the dataset. So data visualization is required to do this task.

**Dataset Description**

**battery\_power** : Total energy a battery can store in one time measured in mAh

**blue** : Has bluetooth or not

**clock\_speed** : speed at which microprocessor executes instructions

**dual\_sim** : Has dual sim support or not

**fc** : Front Camera mega pixels

**four\_g** : Has 4G or not

**int\_memory** : Internal Memory in Gigabytes

**m\_dep** : Mobile Depth in cm

**mobile\_wt** : Weight of mobile phone

**n\_cores** : Number of cores of processor

**pc** : Primary Camera mega pixels

**px\_height** : Pixel Resolution Height

**px\_width** : Pixel Resolution Width

**ram** : Random Access Memory in Megabytes

**sc\_h** : Screen Height of mobile in cm

**sc\_w** : Screen Width of mobile in cm

**talk\_time** : longest time that a single battery charge will last.

**three\_g** : Mobile phone has 3G or not

**touch\_screen** : Mobile phone has touch screen or not

**wifi** : Mobile phone has wifi or not

**price\_range** : Price Range of the mobile phone

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  + [**1. Introduction**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_1_)
    - [**visualization**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_1_1_)
  + [**2. Importing Necessary Libraries**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_2_)
  + [**3. Loading Dataset**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_3_)
    - [**Dropping the unnecessary columns.**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_3_1_)
  + [**4. Perform Exploratory Data Analysis**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_4_)
    - [**Find and handle the null values which are present in the dataset.**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_4_1_)
    - [**Handling the Null values.**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_4_2_)
    - [**Find the duplicate values from the dataset and handle them if any are present.**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_4_3_)
    - [**Count the number of Unique values in each column in a given dataset.**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_4_4_)
  + [**Visualization**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_5_)
    - [**Countplot**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_5_1_)
    - [**Histogram**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_5_2_)
    - [**Pie Chart**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_5_3_)
    - [**Bargraph**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_5_5_)
    - [**Scatter Plot**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_5_7_)
    - [**Box Plot**](http://localhost:8888/notebooks/OneDrive/Desktop/UPGRAD/ASSIGNMENT/pythonforDS/DATA%20visualization%20using%20python/Data_visualisation_using_python_Case_Study_solution.ipynb#toc1_5_8_)