**Capstone Project**

**Mobile Price Range Prediction**

**Contributor Role:**

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### **Data Preprocessing:**

### 1. Getting the dataset

### 2. Importing libraries

### 3. Importing datasets

### 4. Finding Missing Data

### 5. Encoding Categorical Data

## 6.Data Cleaning and Feature Engineering

**Exploratory data analysis:**

1. Firstly, Checked correlation between Each Features in dataset.
2. checked if Bluetooth available or not???
3. Checked can Battery Power be affected in mobile Price?? and how the battery mAh is spread
4. Checked can Ram, Screen Height, Screen width, pixel Height, pixel width be affected in mobile Price??
5. Checked can 4G and 3G be affected in mobile Price??
6. Checked can FC (front camera megapixels) ,PC (Primary camera Megapixels) and Mobile Weight affected in mobile Price??

**Supervise Machine learning algorithms and implementation:**

1. Logistic regression
2. Decision tree
3. Random forest classifier
4. SVM

## **Conclusion:**

1. From EDA we can see that there are mobile phones in 4 price ranges. The number of elements is almost similar.

2. half the devices have Bluetooth, and half don’t.

3. There is a gradual increase in battery as the price range increases Ram

has continuous increase with price range while moving from Low cost to

Very high cost.

4. costly phones are lighter.

5. RAM, battery power, pixels played more significant role in deciding the

price range of mobile phones.

6. form all the above experiments we can conclude that logistic regression, SVM and Hyperparameter tuning for Random Forest we got the best results

**GitHub Link:**

**https://github.com/Shubham248Sawant/Mobile\_Price\_Range\_Predicton**

**Drive https://drive.google.com/drive/folders/1ndmMo55O38Bf\_8MFjffob5qf00iJN4cy?usp=sharing**