**Capstone Project Submission**

**Instructions:**

i) Please fill in all the required information.

ii) Avoid grammatical errors.

| **Please write a short summary of your Capstone project and its components. Describe the problem statement, your approaches and your conclusions. (200-400 words)** |
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| Price always has an important impact factor in the product buying aspect and also in the mindset of the buyer who would consider “what is the worth and is it good to buy within this range”. During any product launch into the market, there are a lot of variables and factors are considered and especially in mobiles many features and specifications like memory are considered and also the impact of the cost also may have an impact with the competition in the marketplace.  In Mobile there are many specifications and features like camera, video, quality of processor, quality of the material. There are many constraints in consideration of the price, as the product should be economical and reachable with overall consideration. Mobile Prices and Specification is mainly considered for selection and comparison. Different tools and Classifiers are used to select best features and select the dataset for comparison.  Mobile nowadays is one of the most selling and purchasing devices. Every day new mobiles with new versions and more features are launched. Hundreds and thousands of mobiles are sold and purchased on a daily basis.  Many features are very important to be considered to estimate the price of a mobile. For example Processor of the mobile. Battery timing is also very important in today's busy schedule of human beings. Size and thickness of the mobile are also important decision factors. Internal memory, Camera pixels, and video quality must be under consideration  **Contributions Roles:-Individual**  **Business Problem:-**  **Mobile nowadays is one of the most selling and purchasing device. Every day new mobiles with new versions and more features are launched. Hundreds and thousands of mobile phones are sold and purchased on a daily basis.In the competitive mobile phone market companies want to understand sales data of mobile phones.and factors which drive the prices.In this problem we don't need to predict the actual price but a price range indicating how the price is.**  **Approach:**  **1.Load the dataset**  **2.Summarize the data**  **3.Exploratory Data analysis**   * **Finding missing values** * **Filling missing values** * **Finding duplicate values** * **Bivariate analysis**   **4.Analyzing data with target variable**  **5.Feature engineering: Aggregation Type**  **6.Chek correlation**  **7.Train-Test-Split**  **8.Model Build(Logistic Regression)**  **9.Use performance evaluation matrix**  **10.XGboost Algorithm**  **Conclusion:-** **Mobile phones have 4 price in ranges****For bluetooth half of having devices and half don't have any devices****Price Range for battery power is in increasing order****Ram has continuous increase with price range while moving from Low cost to****Very high cost.****costly phones are light in weight and having RAM,battery power and pixel****plays a very significant role for deciding prices.****form all the above experiments we can conclude** **that logistic regression and,XGboosting with using hyperparameters we got the best results** |
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| **Please paste the GitHub Repo link.-**  Github Link:-  [**https://github.com/janhavishembade/mobile-price-prediction**](https://github.com/janhavishembade/mobile-price-prediction) |
| **Please paste the Drive link.-**  [**https://drive.google.com/drive/folders/16EFvERkyyzWS4NuqDOwfpslWlbgRc\_jz?usp=share\_link**](https://drive.google.com/drive/folders/16EFvERkyyzWS4NuqDOwfpslWlbgRc_jz?usp=share_link) |
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