**Capstone Project Submission**

( **Mobile Price Range Prediction**)

**Instructions:**

i) Please fill in all the required information.

ii) Avoid grammatical errors.

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| **Team Member’s Name, Email and Contribution:**  **Name : MD MOINUDDIN**  **Gmail id :** [**mmoinuddin780@gmail.com**](mailto:mmoinuddin780@gmail.com)  **I have done this project individually all the concept and method are apply based**  **On project and its requirement. I have one year experience in data analyst so with mostly thing I am familiar in this project** |
| **Please paste the GitHub Repo link.** |
| MD MOINUDDIN: - (https://github.com/Moinuddin-developer/Mobile\_Price\_Range\_Prediction)  Data set:- (https://drive.google.com/file/d/1i8bO3xv3x8SzXSeSkDl-2qYjCyc9vxA2/view) |
| **Please write a short summary of your Capstone project and its components. Describe the problem statement, your approaches, and your conclusions. (200-400 words)** |
| PROBLEM  As the demand for smartphones increases, consumers face the challenge of selecting the best smartphone that meets their requirements and budget. With the constantly changing market and new technologies being introduced, it becomes difficult for consumers to keep up with the price ranges of smartphones. This is where Mobile Price Range Prediction comes into play. The problem is to predict the price range of a smartphone based on its features, specifications, and brand. With accurate predictions, consumers can make informed decisions and purchase the best smartphone within their budget.  The data contains information regarding mobile phone features, specifications etc and their price range. The various features and information can be used to predict the price range of a mobile phone.  The data features are as follows:   1. Battery Power in mAh 2. Has BlueTooth or not 3. Microprocessor clock speed 4. The phone has dual sim support or not 5. Front Camera Megapixels 6. Has 4G support or not 7. Internal Memory in GigaBytes 8. Mobile Depth in Cm 9. Weight of Mobile Phone 10. Number of cores in the processor 11. Primary Camera Megapixels 12. Pixel Resolution height 13. Pixel resolution width 14. RAM in MB 15. Mobile screen height in cm 16. Mobile screen width in cm 17. Longest time after a single charge 18. 3g or not 19. Has touch screen or not 20. Has wifi or not   APPROACH  We will proceed with reading the data, and then perform data analysis. The practice of examining data using analytical or statistical methods to identify meaningful information is known as data analysis. After data analysis, we will find out the data distribution and data types. We will train 4 classification algorithms to predict the output. We will also compare the outputs. Let us get started with the project implementation.  CONCLUSION   * From EDA we can see that here are mobile phones in 4 price ranges. The    number of elements is almost similar. * half the devices have Bluetooth, and half don’t. * 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 * costly phones are lighter. * RAM, battery power, pixels played more significant role in deciding the price range of mobile phone. * form all the above experiments we can conclude that logistic regression and, XGboosting with using hyperparameters we got the best results. |