

### **Dataset Link:**

The dataset used in the project can be found on Kaggle at the following link:

<https://www.kaggle.com/iabhishekofficial/mobile-price-classification>.

### **Description of Project:**

The project is focused on predicting the price range of mobile phones using various features such as battery power, RAM, storage, and camera quality. The dataset used in this project contains 2,000 samples with 21 features each.

### **A brief explanation of the outputs of the Mobile Price Classification Project**

The Mobile Price Classification Project aims to predict the price range of mobile phones based on various features such as battery power, RAM, camera quality, etc. The project's output is a classification model trained on a dataset containing mobile phone specifications and their corresponding price ranges.

The project involves preprocessing the dataset, performing exploratory data analysis, feature engineering, and selecting the best classification algorithm to predict the price range of mobile phones. The output of the project includes the accuracy score of the classification model, a confusion matrix to evaluate the model's performance, and feature importance plots to identify the most important features in predicting the price range of mobile phones.

Furthermore, the project provides insights into the relationship between mobile phone features and their price ranges through visualizations such as scatterplots, correlation matrices, and bar plots. These insights can help businesses and consumers make informed decisions when buying or selling mobile phones.

### **Description of Output:**

The output of the project is a machine learning model that can predict the price range of a mobile phone based on its features. The author has used advanced machine learning techniques such as stacking and blending to achieve a high accuracy score of 0.983.

### **Instructions on How to Run the Code/Project/File:**

To run the project, you need to do the following:

1. Download the dataset from the Kaggle dataset link provided above.
2. Download the code file called "Mobile\_price\_classification".

3. Open the Jupyter notebook and navigate to the directory where the project code file is saved.
4. Open the project code file.
5. Install the required Python libraries listed in the code, if not already installed.
6. Run each cell in the notebook to preprocess the data, train the machine learning model, and make predictions on the test data.
7. After running the notebook, the output will be the predicted price ranges for the test data, along with the accuracy score of the model.

**Note: Make sure to update the file paths in the code cells to match the location of the downloaded dataset and kernel files on your local machine.**