**MOBILE PRICE PREDICTION**

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**AIM:**

The price of a product is the most important attribute of marketing that product. One of those products where price matters a lot is a smartphone because it comes with a lot of features so that a company thinks a lot about how to price this mobile which can justify the features and also cover the marketing and manufacturing costs of the mobile.

**IMPLEMENTATION**:

Now I will start the task of mobile price classification by importing the necessary Python libraries and the dataset:

import warnings

warnings.simplefilter('ignore')

import numpy as np

import pandas as pd

import matplotlib.pyplot as plt

%matplotlib inline

mob=dataset=pd.read\_csv()

mob.shape

mob.tail()

mob.head()

mobile=mob.drop()

x=mobile.iloc[:,0].values.reshape(-1,1)

y=mobile.iloc[:,-1].values.reshape(-1,1)

from sklearn.model\_selection import train\_test\_split

x\_train.shape

x\_test

x\_test.shape

y\_train.shape

from sklearn.linear\_model import LinearRegression

ln=LinearRegression()

y\_predict=ln.predict(x\_test)

**DATA’S**:

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 megapixels

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 megapixels

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 when you are

three\_g : Has 3G or not

touch\_screen : Has touch screen or not

wifi : Has wifi or not

price\_range : This is the target variable with values .

From the dataset we have done that data analysis is used to predict the value of the variable based on the value of another variables.Two variables are there which is dependent(battery\_power) and independent(price\_range).For analysis and prediction we are using Jupyter Notebook.First step is to import libraries. Next step is to read the file and know about the shape and information of the dataset and then need to take the dependent and independent column by dropping the unwanted columns in the dataset. Then we need to convert the data into array values and store in a seperate variables. A Scatter Graph is denoted for those separate variables before the prediction. Next step is to import the sklearn library for Linear Regression, by using train\_test\_split function we need to assign system how much it should get trained and how much it should take for testing and random state should also be denoted. Next step is to create a dataframe for predicted data. Finally, need to save the file as csv. Thus, by using Jupyter Notebook we have analysed and predicted the values. This work is done by HARIKAILASH.G, SAMARUL HUQ.S, SAKTHI.M, PRAVEEN KUMAR.R.