**PROJECT REPORT**

**Subject: Core Project**



# **TITLE OF THE PROJECT: Mobile Prize Prediction.**

**Submitted To: Submitted by:**

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**ABSTRACT**

In this data, we need toapredict the price rangeaof mobile phonesagiven their specs like RAM, aCamera Mega Pixels, Batteryacapacity, etc.,

Toapredict “If the mobile with givenafeatures will be Economicalaor Expensive” is the main motiveaof this research work. Differentafeature selection algorithms areaused to identify andaremove less important andaredundant features and haveaminimum computationalacomplexity. Different classifiersaare used to achieve asahigher accuracyaas possible. Resultsaare compared in termsaof highest accuracy achieved andaminimum features selected. Conclusionais made on the baseaof best feature selectionaalgorithm and best classifierafor the given dataset. Thisawork can be used in anyatype of marketing andabusiness to find optimalaproduct (with minimum cost and maximumafeatures). To predict theaaccuracy of the mobileaprice range.

The commoditiesaprice evolution is a very interestingadata for shopkeepersaselling online. Byausing the Web mining canaget more and moreadata in everywhereasuch as e-supermarketsaand e-commerce. Thisaproject shows a caseastudy for the price extracting ofamobile phone sellingaonline as well. Extractingathe commodities price to getathe price trendausing the uncompletedadata is researched. Theapredicting algorithm isadescribed in detailed. Experimentademonstrates its performanceaand provesaprice evolution isameaningful and useful forathe shopkeepersaselling online.

Many supervisedaclassification algorithms are appliedato this data likeaLogistic Regression, aK-Nearest Neighbour, DecisionaTree, Random Forest, SupportaVector Machine, aGaussian Naïve Bayes. Byausing ensemblesawe get to know aboutathe targetavariable based on differentaalgorithms used.

The independent variables in this data are as follow:

* id- UniqueaID for eachaphone
* battery-power - Totalaenergy a battery canastore in one time measuredain mAh
* bluetooth - Hasabluetooth or not
* clock\_speed - speedaat which microprocessoraexecutes instructions
* dual sim - Hasadual sim supportaor not
* fc - FrontaCamera megaapixels
* four\_g - Hasa4G or not
* int\_memory - InternalaMemory in Gigabytes
* m\_dep - MobileaDepth in cm
* mobile\_wt - Weight of mobile phone
* n\_cores - Number of cores of processor
* PC - Primary Camera mega pixels
* px\_height - Pixel Resolution Height
* px\_width - Pixel Resolution Width
* ram - Random Access Memory in Megabytes
* sch - Screen Height of mobile in cm
* SC\_W - Screen Width of mobile in cm
* talk\_time - longest timeathat a single battery chargeawill last when you are
* three\_g - Has 3G or not
* touch screen - Has touch screen or not
* wifi - Has wifi or not
* price range - \*(Target)\* A number denoting the price range of the phone (0-4)

Future work is suggestedato extend this researchaand find more sophisticated solutionato the given problemaand more accurateatool for priceaestimation.