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Advanced Forecasting of Demandable Products Prices using Machine Learning Algorithm

Gayatri Raghuwanshi[1], Gayatri Zamare[2], Rupesh Apar[3], Rupesh Dabhade[4], Vaibhav Wankhade[5]
Students, Department of Computer Science & Engineering[1,2,3,4,5]
Shri Sant Gajanan Maharaj College of Engineering, Shegaon, India

Abstract: *Knowing which items would be the most affordable is crucial for the organization. At this stage, categorization and prediction issues, such as price prediction, have been resolved using machine learning technology. This project seeks to produce timely and accurate price forecasts to assist the organisation in switching between neighboring markets to assist the organisation in switching between various neighbouring markets in order to sell their goods and obtain competitive rates. The data can be used by the company to make decisions regarding the timing of marketing. The machine Learning technique allows for predicting the number of products/services to be purchased during a defined period. Demand forecasting is used in which first raw data is collected from the market, then according to the data the product prices are forecasted. This model is a catch-all phrase for the shopping process that establishes product prices in accordance with the level of supplier competition, the hour of the day, and the weather. This model will help to forecast the prices of products according to their historical data. At an organizational level, forecasts of product prices are an essential input to many decision-making activities in various functional areas such as operations, marketing, sales, production, and finance.*

Keywords: Product prices forecasting, Machine Learning, Linear Regression, Lasso Regression, XG Boost Algorithm, Gradient Boosting Algorithm, Random Forest Regressor, Streamlit, SkLearn

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