Project Synopsis

on

**Profit Lifter**

Submitted as a part of course curriculum for

**Bachelor of Technology**

in

**Computer Science**



**Submitted by**

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**Summary**

The main aim of this project is to solve problems that small shop owners encounter on the daily basis. One of the major problems that they encounter is the organization is the data of their products and based on that they have to calculate manually which products to buy for reselling to their customers, they require to predict the sales manually which turns out to be false in many cases due lack of sufficient data in organized manner.

This job is very time consuming and takes a lot of effort and despite all the hard work and effort, the retailer can make mistakes which can lead to a financial loss as a small shop owner doesn’t have much stipend to invest, he has to choose the products and their quantity very carefully.

To do this we will be apply Machine learning for the prediction of the sales, which will maximize the profit and save all that hard work and countless hours which he was going to spend predicting manually what and what not he has to buy in a limited capital.

For future work we will be introducing a module which will give recommendations to daily customers of that shop, to prescribe them for the products they buy on daily basis.

**Progress so far**

In the previous semester we read 8-10 research papers and Articles related to sales forecasting and profit maximization of retail products, there we came across ARIMA model which is used for time-series forecasting.

We had also summarized the research papers in our synopsis submitted in the 6th semester to our Guide Asst Prof. Arti Sharma.

We proposed the methodology of work which mainly consists of the flowchart of the model and the Machine learning algorithms that we have kept under consideration for our model.

We also searched for sources to collect dataset, which is quite difficult to gather the exact same data what we require so for training our model we are using dataset on sales of retail items which is available on Kaggle. This dataset will be used to train the model and for further use the model could be trained on any custom data.

**Work to complete by the end of 7th Semester**

For the 7th semester we have planned to begin with the implementation part.

* We will be preparing a basic linear regression model for forecasting the sales.
* We will dive into more advance models in order to attain better accuracy
* We will implement ARIMA model on our dataset to make it function of time series forecasting.