**TOPIC : SALES PREDICTION USING PYTHON**

***Concept of the project –***

Sales prediction means predicting how much of a product people will buy based on factors such as the amount an organization spends to advertise their product, the segment of people they advertise for, or the platform they are advertising on about their product.

***Problem Statement –***

Build a Sales Prediction Model using the concepts of Python so as to manipulate the cost of advertising an organization’s product.

***The objective of the Project :***

The major objective of Sales Prediction is to predict the revenue a company expects to generate in future.

***Data Source Used :***

<https://www.kaggle.com/datasets/bumba5341/advertisingcsv>

***Data Anlytics Software Used :***

Python & Jupyter Notebook Libraries used :

* Numpy - solve complex mathematical problems
* Pandas - use for data frame manipulation
* Seaborn - to create data visualization
* Matplotlib - to create data visualization
* sklearn- Implement complex machine learning algorithm

Machine Learning Algorithms used :

● Linear Regression

**Data sets probable visualizations-**

Bar Graphs and Line Charts will be used using for better visualization

**Methodology-**

Initially, all inputs are preprocessed to be understandable by the machine. This is a linear regression model based on supervised learning. The machine learning algorithm was designed to increment in sales. In this case , input parameters like date and previous sales are labelled as input , and the amount of sales is marked as output. The model will predict a number between 0 and 1 as a sigmoid function is used in the last layer. This output can be multiplied by a

Specific number, this will be our corresponding sales amount for a certain day. This output is then provided as input to calculate sales data for the next day. This cycle of steps will be continued until a certain date arrives.

**Probable Outcome-**

Creating an advanced machine learning model for sales prediction in Python involves several key steps, including data collection, data preparation , model selection, model training and model evaluation. By carefully following these steps and utilizing the appropriate Python libraries, you can develop an accurate and efficient sales prediction model that can help your business make informed decisions and achieve its goals.