PROFIT PREDICTION OF 50 COMPANIES USING DATA SCIENCE

Shivank pandey

Agenda

Abstract

Introduction

Objective

Existing System

Proposed System

System Architecture

Modules

Conclusion

Abstract

This project provides an overview of an ML model that predicts the profit value of a company based on R&D Spend, Administration Cost, and Marketing Spend. The presentation discusses the need for such a model, the existing system's drawbacks, and the proposed system's architecture. This project also demonstrates the usefulness of machine learning models in predicting business outcomes and can be useful for business owners and investors in making informed decisions

INTRODUCTION

The ability to predict the future financial success of a company is of significant importance to business owners, investors, and stakeholders.

In this project, we aim to develop an ML model that can predict the profit value of a company based on three input variables: R&D Spend, Administration Cost, and Marketing Spend.

To develop the model, we use linear regression, a popular machine learning algorithm for predicting continuous variables.

Next, we split the data into training and testing sets and train the linear regression model on the training data. We evaluate the performance of the model on the testing set and use various metrics, such as the mean squared error and R-squared value, to assess its accuracy.

OBJECTIVE

The objective of the ML model is to develop a predictive model that can accurately forecast the profit value of a company based on its R&D spend, administration cost, and marketing spend.

Additionally, the objective is to create a user-friendly and scalable solution that can be easily adopted by businesses of all sizes and industries.

EXISTING METHOD

In present many of these systems may rely on manual calculations or basic statistical techniques that may not accurately capture the complex relationships between these variables.

DISADVANTAGES OF EXISTING SYSTEM

Limited Accuracy

Overfitting and Underfitting

Limited Scope

PROPOSED SYSTEM

The proposed system is an ML model that utilizes a linear regression algorithm to predict the profit value of a company based on its R&D Spend, Administration Cost, and Marketing Spend.

The proposed system addresses the drawbacks of the existing system by incorporating a more accurate and efficient algorithm for prediction.

The model is also evaluated using various performance metrics, such as Mean Squared Error (MSE) and R-squared (R2), to validate its accuracy.

ADVANTAGE OF PROPOSED SYSTEM

Increased Accuracy

Improved Performance

Ease of Implementation

Cost-Effective

SYSTEM ARCHITECTURE

Data Collection

Data Preprocessing

Data Splitting into Testing and Training sets

Model Selection

Model Training

Model Evaluation

Model Deployment

MODULE

Pind

Replace

Slide

Drawing

The system is proposed to have the Algorithm:

LINEAR REGRESSION

Linear regression is a statistical modeling technique used to establish a relationship between a dependent variable and one or more independent variables.

In a linear regression model, the dependent variable is assumed to be a linear function of the independent variables.

The objective of the model is to predict the value of the dependent variable based on the values of the independent variables.

HOW DOES LINEAR REGRESSION ALGORITHM WORKS?

1. Collect data.

2. Plot the data on a scatter plot to visualize the relationship between the independent variables and the dependent variable. 3. Calculate the regression equation which is a mathematical formula that describes the relationship between the dependent variable and the independent variables.
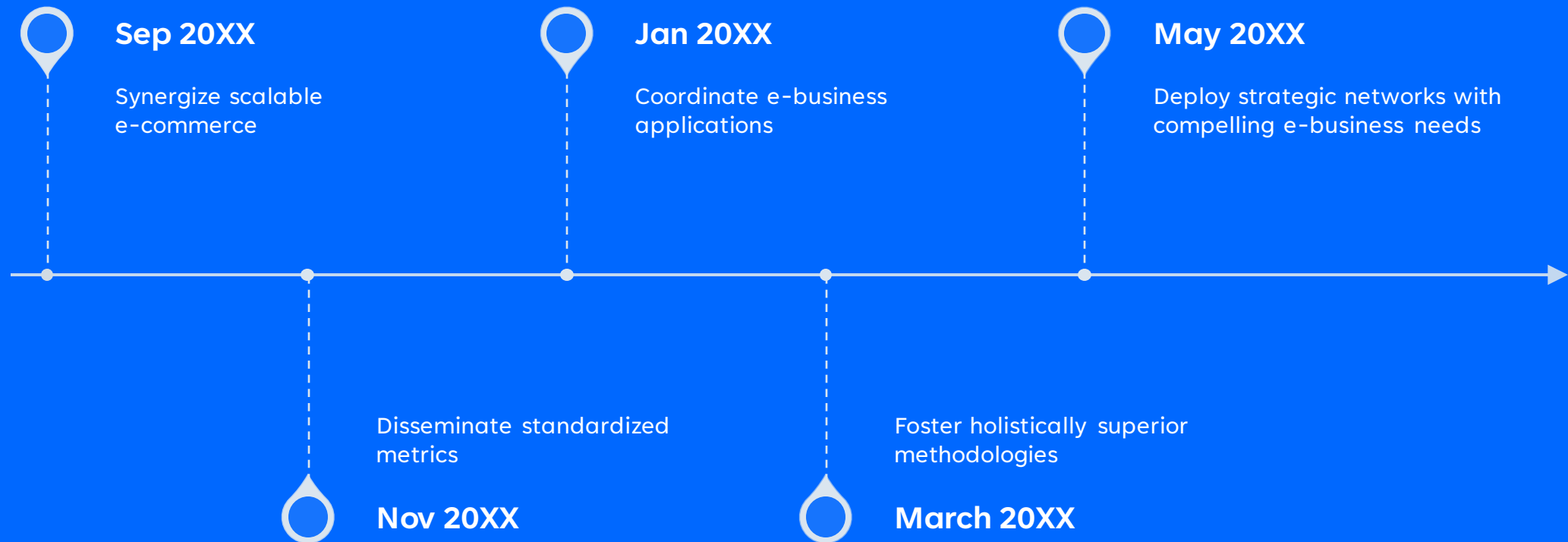
The regression equation will take the form of:

Profit value = a+b1(R&D Spend)+b2(Administration Cost)+ b3(Marketing Spend)

4. Evaluate the model by using R-Squared value, MSE and RMSE. 5. Now use the model to make predictions.

CONCLUSION

In conclusion, the Linear Regression model developed in this project can accurately predict the profit value of a company based on R&D Spend, Administration Cost, and Marketing Spend. The model was trained on a dataset containing information about several companies and their respective profits. The model was evaluated using metrics such as Mean Squared Error and R-squared, which showed that it is a good fit for the data and can be used to make accurate predictions.

Timeline

Sep 20XX

Synergize scalable e-commerce

Jan 20XX

Coordinate e-business applications

May 20XX

Deploy strategic networks with compelling e-business needs

Disseminate standardized metrics

Nov 20XX

Foster holistically superior methodologies

March 20XX

Areas of focus

B2B market scenarios

Develop winning strategies to keep ahead of the competition

Capitalize on low-hanging fruit to identify a ballpark value

Visualize customer directed convergence

Cloud-based opportunities

Iterative approaches to corporate strategy

Establish a management framework from the inside

How we get there

ROI

Envision multimedia-based expertise and cross-media growth strategies

Visualize quality intellectual capital

Engage worldwide methodologies with web-enabled technologies

Niche Markets

Pursue scalable customer service through sustainable strategies

Engage top-line web services with cutting-edge deliverables

Supply chains

Cultivate one-to-one customer service with robust ideas

Maximize timely deliverables for real-time schemas

Summary

At Contoso, we believe in giving 110%. By using our next-generation data architecture, we help organizations virtually manage agile workflows. We thrive because of our market knowledge and great team behind our product. As our CEO says, "Efficiencies will come from proactively transforming how we do business."

Thank you

SHIVANK PANDEY

Panditsh12032002@gmail.com