Student Placement Data Analysis Dashboard

This project focuses on analyzing student placement data for SURE Trust using Power BI to provide insights into placement trends and academic metrics. The data processing, modeling, and visualization in Power BI allow the creation of interactive dashboards to analyze placement outcomes and guide future decisions in improving student placement strategies.

Domain of the Project: Data Science, Data Analytics, Power BI

Mentor:

Mrs. Siddhika Shah (Project Guide)

Period of the Project:

February 2025 to March 2025

Team Member:

Nadigeni Bharathi

Table of Contents:

Executive Summary

The Student Placement Data Analysis Dashboard project aims to analyze placement data for SURE Trust students using Power BI to uncover trends and identify key academic factors affecting placement success. By utilizing Power BI, the project provides interactive dashboards and detailed reports that visualize placement trends, student demographics, and course performance to help guide decision-making for academic and placement strategies.

Introduction

Data Science:
Data science involves extracting meaningful insights from large datasets using various techniques, including data cleaning, exploratory analysis, and predictive modeling. The power of data science lies in its ability to provide actionable insights that drive informed decisions.

In this project, Power BI is used to visualize trends and analyze student placement outcomes based on various factors like academic performance, stream, and college.

Problem Statement:
The primary challenge is to gain a deeper understanding of placement trends based on different academic and demographic factors, thus aiding SURE Trust in improving placement strategies and supporting student career success.

Project Objectives

Trend Analysis: Identify placement trends by department, course, and academic performance.

Demographic Insights: Analyze placement success based on factors such as gender, region, and qualification.

KPI Reporting: Create key performance indicators (KPIs) for placement success based on historical data.

Actionable Insights: Provide suggestions for improving placement success rates and identifying areas for further academic development.

Methodology & Results

Tools/Software Used:

Power BI: Used for data visualization, dashboard creation, and report generation.

DAX (Data Analysis Expressions): Used for creating calculated columns, KPIs, and aggregating data.

Excel/Sheets: Used for initial data cleaning and preprocessing before importing into Power BI.

Data Collection Approach:

The dataset includes various student metrics like academic scores, placement status, and demographic information (gender, region, qualification).

Data was gathered from internal SURE Trust databases and processed for analysis using Power BI.

Project Architecture:

Data Collection: Data was collected from internal placement records and academic performance data.

Data Processing: The raw data was cleaned, formatted, and imported into Power BI for analysis.

Data Visualization: Interactive dashboards were created in Power BI to provide insights into placement success.

Reporting: Generated reports to visualize placement trends, helping SURE Trust make data-driven decisions.

Social/Industry Relevance of the Project

This project provides valuable insights into student placement trends, helping educational institutions improve their strategies to boost placement rates. By analyzing placement data, the project assists educational institutions in better aligning their curricula with industry requirements and student aspirations, fostering stronger industry-academic collaborations.

Learning & Reflection

This project helped refine my skills in Power BI for data analysis and visualization. The hands-on experience with DAX and dashboard design provided an understanding of how to present data-driven insights effectively to inform decision-making processes. Moreover, working on this project emphasized the importance of clean, well-organized data for generating meaningful insights.

Future Scope & Conclusion

The Student Placement Data Analysis Dashboard can be expanded to include predictive models for future placement outcomes, enabling proactive measures for improving student performance and placement success. With further improvements in the data collection process and inclusion of more factors, this dashboard can evolve into a comprehensive tool for tracking educational success and guiding future strategies.

GitHub Repository:

https://github.com/BharathiNadigeni/Sure-Trust-Student-Placement-Data-Analysis-