

Title: Student Placement Record Management

Author: Pratipal Kumar Singh (1323607) & Sonu Kumar (1323524)

Background & Context:

In higher educational institutions, placement drives are a crucial bridge between academic learning and industry employment. Despite eligibility, a significant number of students **do not attend placement drives, skip rounds, or withdraw midway**, creating challenges for the Training & Placement (TNP) team.

Currently, institutions face difficulties in:

- Tracking **individual student participation**
- Identifying **patterns of absenteeism**
- Understanding **reasons for low engagement**
- Measuring the **impact of training, mentoring, and meetings**

Due to the lack of a **centralized, analytical, and interactive system**, placement decisions are often based on **manual records, assumptions, or incomplete data**, leading to inefficient planning and reduced placement success.

Problem Statement:

Institutions face a persistent challenge in analyzing and managing student participation in placement drives. Although many students are eligible, a noticeable portion either do not attend placement drives, drop out after initial rounds, or fail to engage in training and mentoring activities provided by the Training & Placement (TNP) cell.

The absence of a structured data-driven system makes it difficult to:

- Identify **which eligible students are not attending placement drives**
- Analyze **how many drives a student has attended or missed**
- Track **round-wise progress (Round 1, Round 2, HR, Selection)**
- Measure the **effectiveness of TNP mentoring and training sessions**
- Understand **historical trends** in student placement behavior

As a result, placement teams struggle to perform predictive analysis, early intervention, and personalized mentoring. This project aims to design and implement a **Student Placement Record Analysis and Management System** that provides an **interactive**

dashboard, trend-based insights, and individual-level analytics to support informed decision-making and improve overall placement outcomes.

Introduction

Student placement outcomes are a critical indicator of institutional academic effectiveness and graduate employability. Despite fulfilling eligibility requirements, a notable proportion of students either fail to attend placement drives or withdraw at various recruitment stages, leading to reduced placement success and inefficient utilization of institutional resources. The lack of a unified, data-centric analytical platform restricts Training and Placement (TNP) teams from systematically monitoring student engagement, identifying absentee patterns, and assessing the effectiveness of training and mentoring initiatives.

This paper proposes a Student Placement Record Analysis and Management System designed to analyze student eligibility, placement drive participation, stage-wise recruitment performance, mentoring involvement, and final placement results. The system consolidates structured institutional data to examine both individual and group-level student behavior across multiple companies and recruitment cycles. An interactive, dashboard-driven analytical framework is developed to deliver real-time insights into eligible versus participating students, round-wise progression, absenteeism trends, and mentoring impact.

To enhance accessibility and operational efficiency, the proposed solution incorporates mobile-based support using a modern application framework, allowing placement teams to monitor activities, manage resources, and conduct comparative analysis across academic batches and organizations. Experimental evaluation indicates that the system improves analytical visibility, supports early identification of disengaged students, and enables informed, data-driven decision-making. The findings suggest that structured placement analytics can significantly enhance student participation, mentoring effectiveness, and overall institutional placement performance.

Abstract

Student placement outcomes are a critical indicator of institutional academic effectiveness and graduate employability. Despite fulfilling eligibility requirements, a notable proportion of students either fail to attend placement drives or withdraw at various recruitment stages, leading to reduced placement success and inefficient

utilization of institutional resources. The lack of a unified, data-centric analytical platform restricts Training and Placement (TNP) teams from systematically monitoring student engagement, identifying absentee patterns, and assessing the effectiveness of training and mentoring initiatives.

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An interactive, dashboard-driven analytical framework is developed to visualize key performance indicators such as eligible versus participating students, attendance ratios, stage-wise progression, absentee trends, and offer outcomes. The system further incorporates mobile-based accessibility using a modern application framework, allowing placement teams to monitor activities, manage resources, and perform comparative analysis across companies and academic years in real time. This approach enhances operational flexibility and supports timely interventions for students at risk of disengagement.

Experimental evaluation demonstrates that the proposed system significantly improves analytical transparency, supports early identification of participation issues, and strengthens data-driven planning for placement activities. The findings indicate that structured placement analytics can enhance student participation, optimize mentoring strategies, and contribute to improved institutional placement performance. The proposed framework establishes a scalable foundation for future extensions, including predictive analytics and intelligent recommendation systems for placement readiness.