2023-2024

Mini Project

6th Semester
3rd year

Prepared by group 1

Team Members

Ritik Malviya

AM21007

Leader

Ankush Gupta

AM21062

Member

Sohail Ansari

AM22D004

Member

Ruchita Kumbhare

AM21002

Member

PROBLEM STATEMENT

STUDENT PERFORMANCE ANALYSIS FOR COLLEGE

BRIEF INTRODUCTION ON PROJECT TOPIC

Introduction

- The educational landscape is undergoing rapid changes, necessitating innovative approaches for effective outcomes
- This mini project is to design and implement a system
- The focus is on comprehensive analysis and prediction of college student performance

PROJECT HIGHLIGHTS

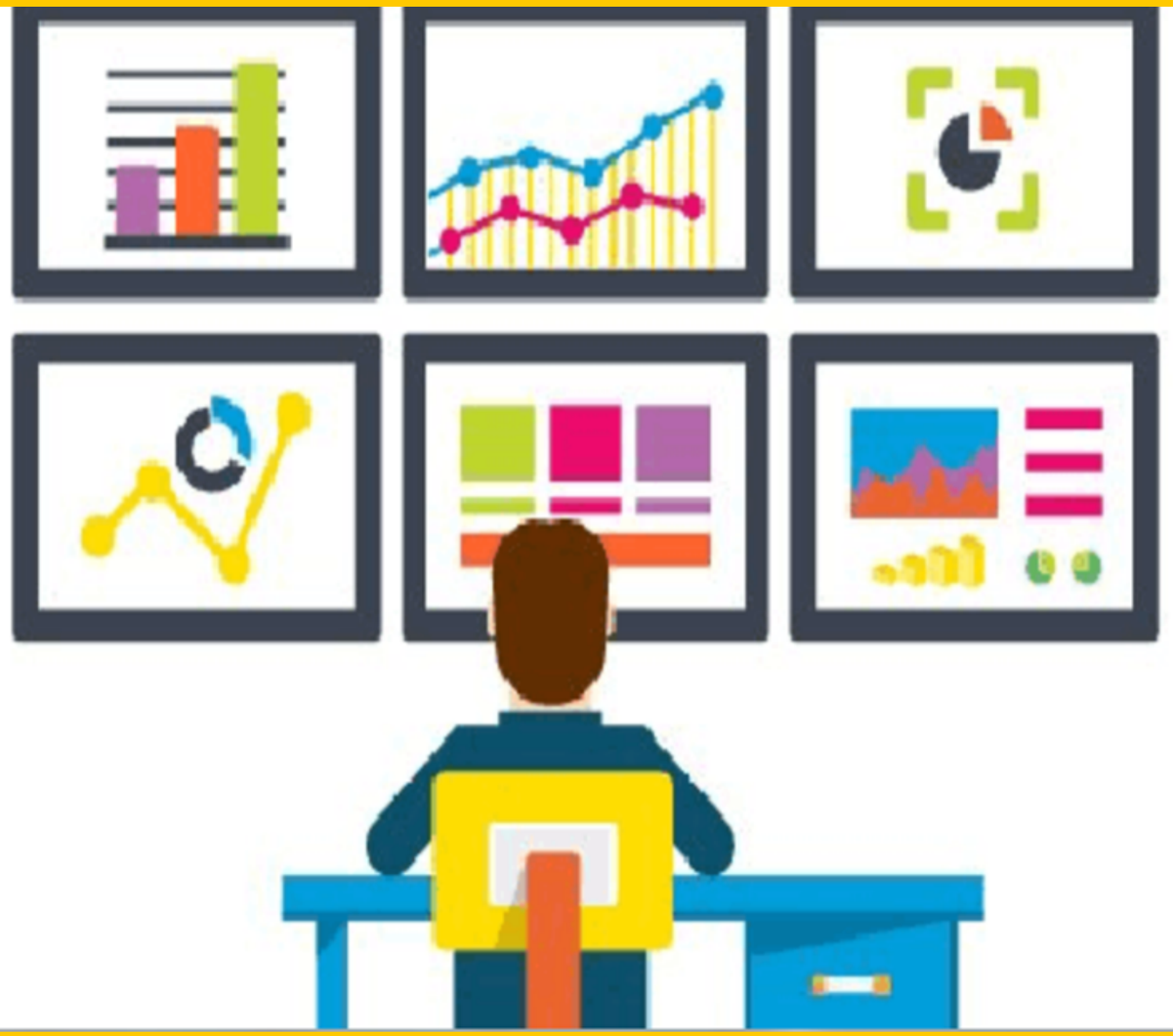
- Platform for Students and teachers
- Student Dashboard
- Performance analyser
- CGPA & SGPA calculator
- ESE guidance

Student Performance Analysis System

A platform which enables students to analyze there academic as well as non academic performance.
It also enables teachers to keep track on students records and guide students for better performance.

Login

Create Account



OBJECTIVES

Project Objectives

Data Collection

- Gather relevant data including academic records, attendance, extracurricular activities, and socio-economic factors.
- Identify and extract meaningful features from the collected data to build a robust performance analysis model.

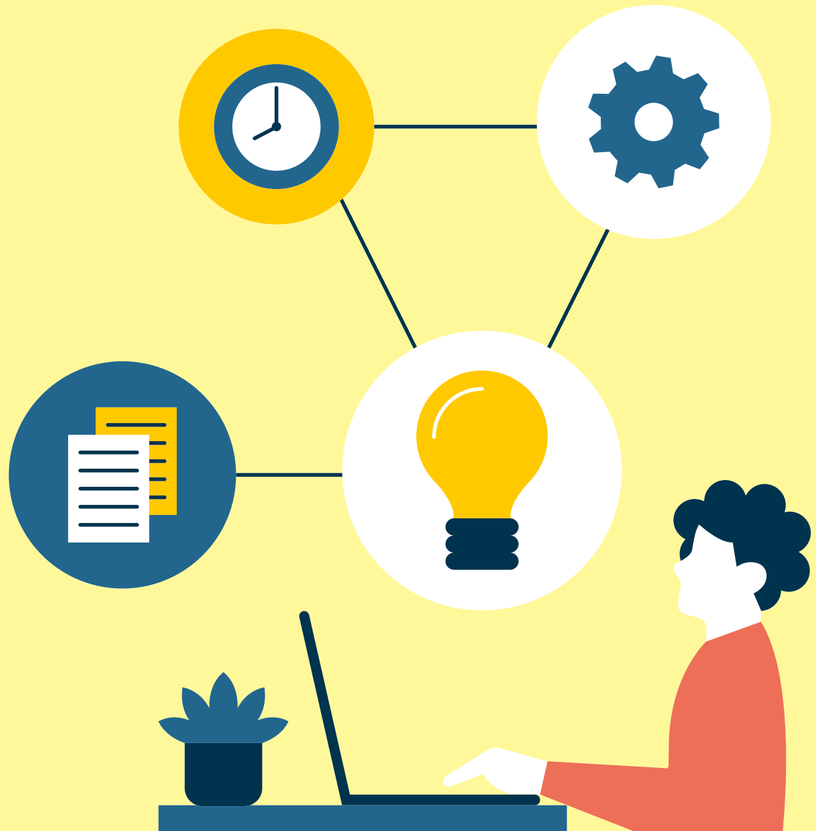
Model Development

- Employ AIML algorithms to develop a predictive model for student performance.
- Seek input from students and faculty to refine predictions and recommendations.

Dashboard Creation

- Develop an intuitive dashboard for visualizing and interpreting the performance analysis results.
- Ensure user-friendly interfaces for administrators, faculty, and students.

METHODOLOGY



Methodology

Start

Teacher will login into the system.

Teachers will student enter data.
Data will consist of student marks of CAE and End Semester.

Firebase

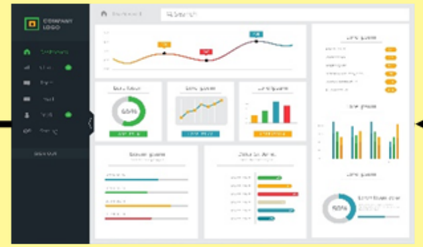
Student will login into the system.

Teachers will be able to see students' performance.

Data fetched from database.

Students will be able to see their Performance.

Performance Report



Dashboard Designing

Power BI

Edit Profile

Student Profile

Here Students will be able to update there profile.
Also they can upload there certificates and links of there social media platform.

Student Data can be accessed from database.

Log Out Option For Both Teacher And Students

End

EXPECTED OUTCOMES

Expected Outcomes

- Integrate timely interventions and support mechanisms to enhance student success rates.

- This mini project offers an opportunity to apply theoretical knowledge to real-world scenarios, contributing to the advancement of education through intelligent data-driven insights.

- Aim for a model that can be generalized to different educational institutions.

Anticipated Challenges

Anticipated Challenges

Privacy and Security Concerns

Safeguarding sensitive student data and ensuring compliance with privacy regulations

Scalability Issues

Handling an increasing number of users and data as the platform gains popularity

User Adoption and Engagement

Encouraging students to actively use the platform and engage with the performance analytics features

Data Integration and Compatibility

Integrating diverse data sources and ensuring compatibility with various educational platforms

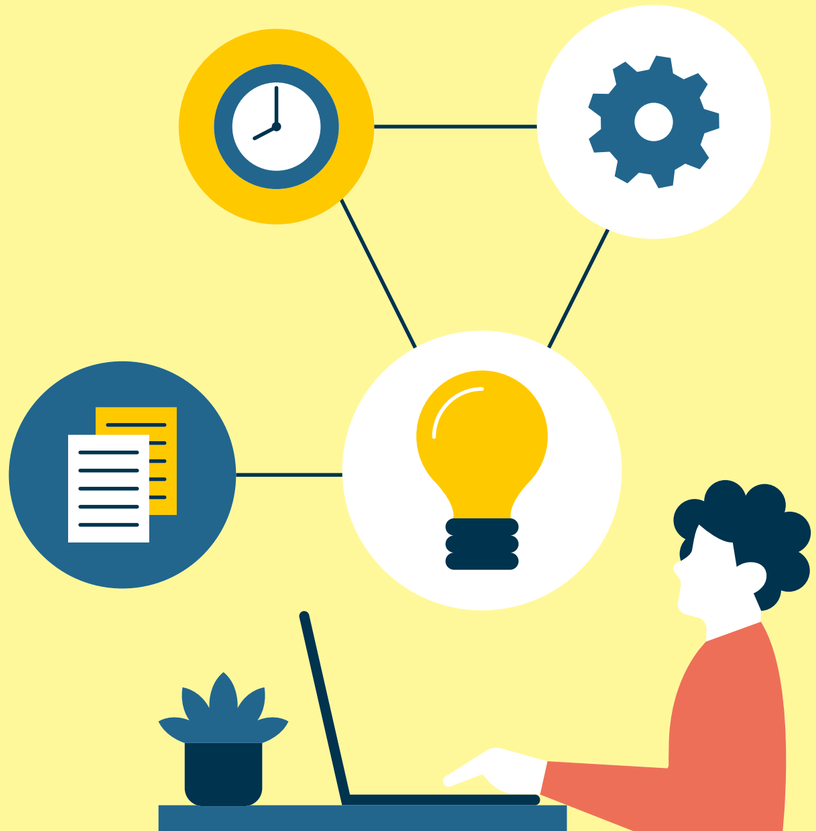
Technical Maintenance and Upgrades

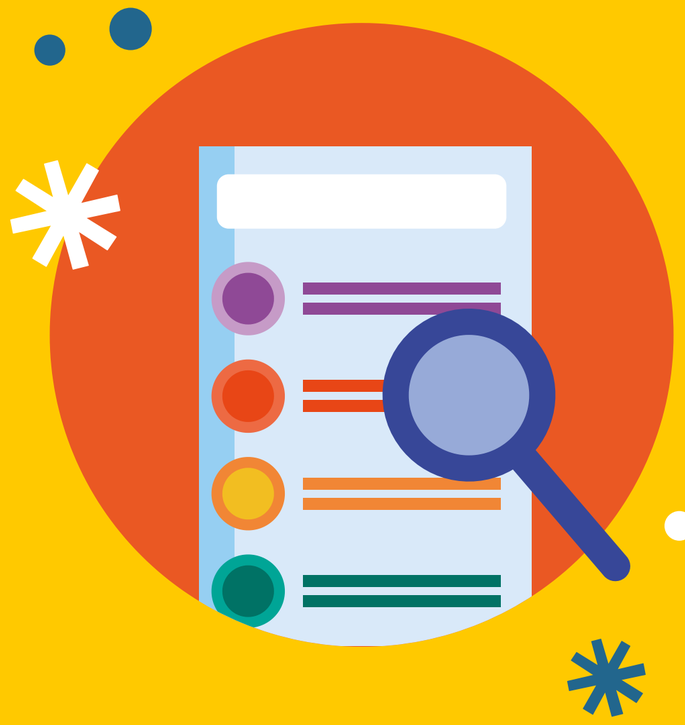
Managing and maintaining the technical infrastructure, including regular updates and system upgrades

Educational Institution Collaboration

Collaborating with educational institutions to integrate the platform into their systems and workflows

RELATED RESEARCH PAPERS





Related Research Papers

Bum, S. 1, Iorliam, I. B. 2, Okube, E. O. 1, and Iorliam, Prediction of Student's Academic Performance Using Linear Regression. Benue State University, Makurdi, Nigeria: Department of Mathematics & Computer Science.

Comparison of Linear Regression and Logistic Regression Algorithms for Ground Water Level Detection with Improved Accuracy. C. Gnaneshwar Rajuudha and Sajiv G. DOI: 10.1109/ICONSTEM56934.2023.10142495

Pallavi Asthana, Sumita Mishra, Nishu Gupta, Mohammad Derawi And Anil Kumar ,Prediction of Student's Performance With Learning Coefficients Using Regression Based Machine Learning Models ,Gjøvik, Norway: Amity School of Engineering and Technology, Amity University, Lucknow Campus, Uttar Pradesh 226028, India & Department of Electronic Systems, Faculty of Information Technology and Electrical Engineering, Norwegian University of Science and Technology.

Institute for Intelligent Systems, University of Johannesburg, Johannesburg 2006, South Africa 2School of Electronic and Electrical Engineering, University of Leeds, LS2 9JT Leeds, U. K., "Student Performance Patterns in Engineering at the University of Johannesburg: An Exploratory Data Analysis."

Thank You