221060269 Assignment 1

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Introduction

- We as Team 25, are developing a **Learner Performance Tracking System** that can be used by parents to monitor their children's performance in every subject they take.
- The goal is to enable parents to view their children's performance in every assessments without needing to request to meet a teacher in order to discuss their child's performance.
- This will also reduce the teachers reliance on learners to convey messages to their parents regarding meetings due to bad performance for example.
- The other goal, is for the system to provide caution or motivation to a learner when they have not been performing well in previous assessments or when they have been doing well.
- Gamification, will be utilized to provide means for motivating learners to always want to improve using points, badges and leaderboards to rank them from number 1 to 10 within their subjects based on performance.

Problem Statement

- According to the surveys we have conducted with multiple stakeholders such as parents, learners, teachers and the primary sponsor of this solution, we realized that 78.9% of the learners say that in order for them to view

their performance progress they **need** to contact their teachers before they can get access to their assessment results for example.
- With parents, 42.9% say that they rarely communicate with their learners' teachers and that they do not receive communication on their child's academic progress in a timely manner.
- This is a problem they are having, because 71.4% say that their children do not disclose their academic progress during the term and only get feedback on their progress at the end of the term.
- The LPTS, aims at reducing these issues, by enabling parents to monitor without need to consult with the teacher or learner their child's academic progress anytime they want so long as those academic results are available in the system.

Our team
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- B Shakwane
- SM Sekgala

We are a team of 4 students who strive to use our knowledge in software engineering to solve peoples problems.

Functional Requirements
- Secure login and role-based access for parents, teachers, and students.
- Teachers can input and update grades, assignments, and test scores.
- Teachers can log attendance, and parents receive notifications for absences
- Teachers can record behavioural feedback and disciplinary actions.
- Parents and students receive updates on academic performance and important school events.
- Students can track their grades, attendance, and assignments and utilize gamification technology.
- Generate learner and teacher progress summaries.
- School admins can manage users, roles, and system settings

Non-functional Requirements
- The system should handle multiple schools, students, and teachers efficiently.
- Data encryption, role-based access, and compliance with data protection regulations.
- User-friendly interface for easy adoption by all stakeholders.
- The system should be fast and responsive, with minimal downtime.
- Ensure 99.9% uptime and data integrity.

- The mobile app should work on both iOS and Android.
- All student data should be securely stored in the cloud.
- Regular automated backups to prevent data loss.
- Accessible to users with disabilities.
- Ability to integrate with existing school management systems.