**CHAPTER ONE**

**INTRODUCTION**

Every academic institute depends on data, but not all of them handles it well. In many schools, student records are scattered across paper files, spreadsheets, or outdated digital systems that lack structure, security, or scalability. This creates confusion, increases administrative workload, and miscommunication especially when it comes to grading. To address these challenges, educational institutions often turn to digital solutions that can streamline student data management.

A student management system is a software-based platform designed to store, process, and manage student information such as academic performance, personal details, and enrollment data. By digitizing this data, the system improves accuracy, accessibility, and organization. However most traditional system fail to account for access control, they treat all users the same, granting unrestricted privileges regardless of roles or responsibility. This chapter seeks to represent information concerning background study, problem statement, objective, and the scope.

**BACKGROUND STUDY**

Before the emergency of computerized systems, student’s record-keeping was entirely manual. Academic institutions relied on paper files, handwritten grade books, and physical storage cabinets. This traditional method, though effective for small scale operations, became unsustainable as enrollment increased and data complexity grew.

The first steps toward digitizing student information began in the 1960s and 1970s, with university in the United States and Europe experimenting with mainframe-based administrative software. These early systems were custom-built, often expensive, and used only for large institutions.

A major shift occurred in the 1980s and early 1990s with the widespread us of personal computers. Schools began using spreadsheet software such as lotus 1-2-3 and Microsoft excel to manage student data locally. This era marked the beginning of small scale student information systems (SIS) that were more accessible to schools.

By the late 1990s and early 2000s, dedicated student management systems began to emerge commercially. Products like PowerSchool (launched in 1997), Infinite Campus (in 1993), and open source tools like Fedena (launched in 2009) introduced web-based access and multi-role support for students, teachers, and administrators.

**OBJECTIVES**

* To develop a locally hosted student management system.
* To ensure student can securely review their academic records and flag incorrect grades.
* To enable teachers to manage grades while restricting access to sensitive student information.