**Project: Student Information System**

**Experiment - 1**

**Introduction:**

A Student Information System (SIS) is basically a software solution that enables educational institutions to digitize and consequently manage student information more efficiently. Eliminating the need of physical documentation, a Student Information System keeps the record online safe and secure and it is more economical and stress free for the administration.

**Software Needs:**

* **A powerful brain:** The SIS needs a strong server (like a computer superbrain) to handle all the information and quickly respond to everyone's requests.
* **Plenty of memory:** Just like our brains need space to store memories, the SIS needs a lot of storage to keep all the student information safe and organized.
* **An organized filing system:** A Database Management System (DBMS) helps the SIS keep all the information neatly organized and easy to find, just like a well-organized filing cabinet.
* **A special language:** The SIS needs to be built using a programming language that allows developers to create the features and functionalities that make it useful.
* **A user-friendly interface:** A web framework helps create a website where everyone can easily access and use the SIS.
* **A reliable operating system:** The server needs a stable and secure operating system to run smoothly and keep the student information safe.

**Hardware Needs:**

* **A reliable server:** The heart of the SIS is a reliable server with enough power (like a strong engine) and memory (like a good mind) to handle all the tasks.
* **Plenty of storage space:** The server needs enough storage space to hold all the student information, like a big library with shelves for every book.
* **A strong network:** A good network infrastructure ensures that everyone in the school can connect to the SIS and access the information they need, just like a well-connected road network.

**Key Features:**

* **Keeping track of students:** The SIS helps manage student information, from their names and contact details to their academic records.
* **Managing courses:** It helps manage course information, including schedules, teachers, and student enrollments.
* **Tracking attendance:** The SIS keeps track of student attendance, making it easy for teachers and parents to stay informed.
* **Managing grades:** It helps teachers easily enter and track student grades, and it can even calculate grades automatically.
* **Staying connected:** The SIS provides communication features to help teachers, parents, and students stay connected.
* **Supporting school administration:** It helps school administrators with various tasks, such as managing student enrollment and generating reports.