**Project: Student Information System**

**Experiment 1:**

Student Information System (SIS) Project with Supabase Integration. This is our first lab experiment for a proper Student Management System with Supabase integration using C. The purpose of this project is to develop a working system for the management of student files in education, integrating the latest cloud database management for efficient data handling.

**System Overview:**

**•** Console-based application written in C.

• Student information will be managed by Supabase.

• Text-based menus will be responsible for user interaction.

**Key Features:**

1.New student information may be added to Database.

2. All student information records may be displayed from Database.

3. Certain students can be searched using Database queries.

4. Update student information in Database.

5. Delete student from Database.

**Student Data:**

Essential information stored will include student name, roll number, course, class, and contact details in Database.

Development Environment:

• C programming language.

• GCC for compilation.

• Supabase as the database management system.

• Supabase python client library for the programming interaction with the database.

**Project Scope:**

The system will implement a CRUD (Create, Read, Update, Delete) operation using Supabase as an underpinning. This way, persistence can be assured, upkeeping and maintaining these databases will prove quite faster and efficient as compared to the traditional database management systems.

**Implementation Notes:**

• We will use Supabase for our database system and its cloud-based PostgreSQL database.

• Database operations will use Supabase API calls.

• Functions for Supabase connections and operations will be written.

• C-level and Supabase-level error handling must be implemented.

• The project will require understanding of C programming, Python Programming, and Supabase API usage.