**Database Management System**

Case Study of Project: **School Management System (SMS)**

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**Description:** Graphio Zone School System is a multi-strength school that incorporates various students, subjects, teachers with a proper timetable scenario and as a staff working in the school and ranges of fees for students & pays for teachers. In this way, it will facilitate us to handle the data and record of every one who enter in the school and leaves the school.

The framework contains good databases, which illuminate understudies about the working day, any developments, changes in the timetable, and so on. With the assistance of school the executives framework one will discover his imprints regarding each matter, will see his obligations, what he needs to deliver and whether his general advancement id fruitful. Guardians are very happy with the capacities of the framework, in light of the fact that with its assistance they generally can control the instructive advancement of their youngsters, their participation and become acquainted with what subjects and points they realize, what issues has their tyke.

* **Plan to develop a database for the described school.**
* **To describe that how to maintain the records of various Students subjects, teachers, timetable, fee and staff in the school.**
* **Developing a Database System.**
* **To ensure any ambiguity found while creating and designing the database.**

School the board framework makes the instructive procedure efficient and does not give understudy a chance to squander their time and offers a scope of areas where understudies can be included at their extra time.

**Description of Tables:**

Following are the tables along with constraints used is this project.

**1-STUDENTS:** This table includes **Student\_ID int (10) Primary Key** , **Student\_name VARCHAR (20)**, **phone INT(15)**, **Cnic INT,**  **Gender CHAR** , **Permanent\_Address VARCHAR(20), sections CHAR, Temporary\_Address VARCHAR(20).**

**Constraint**: **Student\_ID**, Cnic will be unique for every student.

**2-Subjects:** This table include data of subjects as **sub\_id INT, sub\_name VARCHAR(15)**.

**Constraint:** **sub\_id**, Cnic is unique for each teacher.

**3-Teachers:** This table includes data of teachers and their linked departments as **Teacher ID int Primary Key, Teacher name VARCHAR(20), Cnic INT unique , phone INT(20)**,  **Gender CHAR, Permanent\_Address VARCHAR(20), Temporary\_Address VARCHAR(20), Employement\_history VARCHAR(20), Salary DOUBLE , Qualification VARCHAR(20), joining\_date DATE, leaving\_date DATE**.

**Constraint:** Teacher ID, Cnic is unique for each teacher.

**4-Staff:** This table includes data of staff as **Staff\_id INT Unique ,Staff\_Name VARCHAR(20) , Gender char, Salary DOUBLE**, **Bonus INT.**

**Constraint:** Staff\_ID is unique for each teacher.

**5-Fee** **:** This table includes data of fee details of students in the school as **Monthly\_ Fee DOUBLE, Fine INT(10), Tax DOUBLE, discount INT, kinship VARCHAR**, **yearly\_fund INT.**

**6-TimeTable** **:** This table includes data of TimeTable as **sub\_name VARCHAR(15)**, **Teacher name VARCHAR(20), class int(5), Venue VARCHAR(20), time VARCHAR(20).**

**7-DefaulterStudents** **:** This table includes data of DefaulterStudents **Student\_ID int (10) foreign key, Student\_name VARCHAR (20), Violation VARCHAR(20), Punishment VARHCAR(20)**

**Constraint: Student\_ID is foreign key** to **Student\_ID in Students table**.