Database Design and Implementation for a school

(Context)\_School Situation – The school is in need of a database to effectively store and manage their day to day tasks while also having effective data storage.

**Business rules**

* A Teacher is an Employee.
* A Teacher teaches one or more Subjects. A Subject is taught by exactly one Teacher.
* A Subject is taught in one Classroom. A Classroom can host one or more Subjects.
* A Subject has exactly 3 Tests. A Test belongs to exactly one Subject.
* A Subject has exactly one Exam. An Exam belongs to exactly one Subject.
* A Classroom can accommodate up to 30 Students. A Student is assigned to exactly one Classroom.
* A Secretary is an Employee.
* A Secretary assists exactly one Principal. A Principal is assisted by exactly one Secretary.
* A Principal is an Employee.
* A Principal does not teach any Subject.
* A Student studies one or more Subjects. A Subject is studied by many Students.
* A Student writes 3 tests for the Subjects they study.
* A Student writes an exam for the Subjects they study.
* A Student can write 1-3 Tests records for each Subject.
* A Student writes an Exam records for each Subject.

Subject(subj\_id)

Teacher(emp\_id)

Principal(emp\_id)

Classroom(class\_id)

Secretary(emp\_id)

Student(student\_id)

Test(test\_id)

Exam(exam\_id)

Employee

* Teacher
* Secretary
* Principal