

## WRITE UP

The Back end administrative portal program uses MySQL database, and the program is connected to the database via JDBC. The data base contains 4 main tables: Class, Student, Subject, Teacher and 2 intermediate tables Class\_Subject and Teacher\_Class\_Subject.

The Class table contains 2 columns Class id and class name. here Class id is the primary key. The student table contains 3 columns Student id, Student name and class id. Here student id is the primary key and class id is a foreign key referencing to the primary key of Class table. Each student will only have one class id. The subject table contains 2 columns, subject id and subject name, where subject id is the primary key and for Teacher table, teacher id and teacher name are the columns with teacher id serving as the primary key. For the intermediate table class\_subject there are 2 columns class id and subject id. Both are foreign keys referencing to the main tables. This intermediate tables shows which subjects are allocated to which classes. The second intermediate table is Teacher\_Class\_Subject which contains 3 foreign key columns,subject id, teacher id and class id which references to there respective main tables. This table explains which teacher is assigned to which subject in which class.

The main program is a menu driven program containing 8 options. The first 4 options are there to view the 4 main tables. The 5<sup>th</sup> option is to assign a subject to a class. Here the class\_subject table references the class id and subject id from the class table and subject table, the values should be present in the class table and subject table in order to assign a subject to a class. The 6<sup>th</sup> option is to assign a teacher for a subject in a class. For assigning a teacher to a subject in a class, the subject should be assigned to the class first then only we will be able to assign a teacher to that subject. The 7<sup>th</sup> option is to view the class report which displays the name of each class with the name of students, subjects assigned to that class and names of teachers teaching the subject. The 8<sup>th</sup> option is to exit from the application.