**Student Management System**

Group 23

**Group Members**

- Sagar Mittal : 19ucs182

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- Tanmay Lodha : 19ucs221

DATABASE REPORT

**Table 1** : *Admins*

Admins table is used to store credentials of teachers and which are required at the time of login.

Only those teachers who are present in the admins table can login and use the student management system. This provides security to our management system and prevents any type of data manipulation by someone. Each teacher is given a username and passkey as mentioned below. Each class has been assigned a teacher and therefore the **class** table and **admins** have a one on one relationship with each other through attribute ***teacherID.***

Attributes

1. *Username :* Datatype : varchar(10) NOT NULL

Username is required by the teacher at the time of login.

1. *Passkey :*  Datatype : varchar(10) NOT NULL

*Passkey*  is required by the teacher at the time of login.

1. *TeacherID :*  Datatype : integer Primary key

*teacherID*  is the **PRIMARY KEY** for this table.

It is auto incremented and has a base value = 100

**Table 2** : *Students*

Students table uniquely identifies each row by its primary key ***rollNumber*** which also helps it to connect to Table **Studetails .** This table is responsible for storing marks for 5 subjects of a student along with the projected cgpa of the student.

Attributes

1. *rollNumber :*  Datatype : varchar(8) NOT NULL

***rollNumber*** is the **PRIMARY KEY** for this table.

This attribute uniquely identifies each row and is also used while …. joining students table to the table carrying student data.

1. *APmarks :* Datatype : integer

Used to store marks of Subject ‘Advanced Programming’.

1. *COAmarks :* Datatype : integer

Used to store marks of Subject ‘Computer org. And Architecture’.

1. *DBMSmarks :* Datatype : integer

Used to store marks of Subject ‘ IDBMS ‘.

1. *OTAmarks :* Datatype : integer

Used to store marks of Subject ‘Optimazation Techniques and ... . Applications ‘.

1. *Mmarks :* Datatype : integer

Used to store marks of Subject ‘ Mathematics 3 ‘.

1. *cgpa :* Datatype : Decimal(10,2)

Used to store projected CGPA of a student upto 2 decimal places.

**Table 3** : *StuDetails*

This table stores details of the student other than marks .

This also references itself to table **Class** using foreign key ***classID****.*

Each student has a classID hence and through the class a definite teacher.

Attributes

1)  *roll :* Datatype : varchar(8)

Used to store the roll number of a student.

**Primary key** for this table.

This attribute uniquely identifies each row and is also used while…. …. joining stuDetail table to the table carrying student marks.

2) *firstName :* Datatype : varchar(15)

Used to store the first name of a student.

3) *lastName :* Datatype : varchar(15)

Used to store the last name of a student.

4) *branch :* Datatype : varchar(20)

Used to store the branch of a student.

5) dob : Datatype : datetime

used to store the date of birth of a student

6) classID : Datatype : integer , **Foreign key**

References  *classID* of table **class**

**Table 4 :** *Class*

**Class** table is used to store **classID** of all the classes the system has . Also it contains the **teacherID** attribute hence each class is given a unique teacher which is referenced to the ***teacherID***  attribute of the admins table.

Attributes

1. classID : Datatype : integer

Unique ID for each class

**Primary key** for this class

1. TeacherID: Datatype : integer , **Foreign key**

References  *teacherID* of table **admins**

**Database Schema**

