**DOMAIN: SCHOOL MANAGEMENT SYSTEM**

ENTITIES:

1. Student
2. Teacher
3. Class/Section
4. Subject
5. Enrollment
6. Grade
7. Attendance
8. Schedule
9. Parents/Guardian
10. Administrative Staff

All these entities can be associated with the school management system. These entities can have various attributes depending upon their use.

**1 Student:**

1 Student ID (Integer): Depicts the unique registration ID of the students

2 First Name (String): Shows the first name of the student

3 Last Name (String): Tells about the surname of the student

4 Date of Birth (Integer): Informs about the birth day of the students and the age.

5 Address (String): Informs about the address of the students.

6 Phone No (Integer): A student’s phone number is recorded. A student can have multiple contact number.

7 Email (Integer): Contains the email of the students.

8 Enrollment Date (Integer): Depicts the date on which the student got admitted in the institution.

9 Class Integer): Tells about the class a student is currently studying.

1. Guardian’s Contact (Integer): Has the contact number of the student’s guardian.

**2 Teacher:**

1 Teacher ID (Integer): Shows the unique registration number of the teacher.

2 First Name (String): Tells about the first name of the teacher.

3 Last Name (String): Tells about the surname of the teacher.

4 Department (String): Informs about the department in which a particular teacher teaches.

5 Subject Specialization (String): It states the subject in which a teacher has his expertise.

6 Email (String): States the email id of the teacher.

7 Phone No (Integer): Has the contact number of all the teachers.

8 Address (String): Shows the area in which a teacher resides.

9 Employment Date (Integer): Tells about the date on which a teacher joined the institute.

**3 Class/Section:**

1. Class ID (Integer): Informs about the unique ID of a particular class.
2. Class Name (String): Tells about the name of the subject being taught in the class.
3. Teacher ID (Integer): The teacher ID associated with the class.
4. Subject ID (Integer): The unique identity of the subject being taught.
5. Schedule (Integer): It shows the number of days classes are being held.
6. Room Number (Integer): It tells the room number in which classes are going on.

**4 Subject:**

1. Subject ID (Integer): The unique ID attached to the subjects.
2. Subject Name (String): Processes about the name of the subject.
3. Description (String): Describes about the subject.
4. Credits (Integer) Tells about the credit weightage of the subjects.
5. Department ID (Integer): The unique number associated with the various departments.
6. Prerequisites (String): Any prerequisites for the courses going on.
7. Department (String): Academic department offering the course.
8. Instructor ID (String): ID of the instructor offering the course.
9. Semester (Integer): Semester or term in which the course is offered.
10. Max enrollment (Integer): Maximum number of students that can enroll.

**5 Enrollment:**

1 Enrollment ID (Integer): Unique identifier for the enrollment record

2 Student ID (Integer): ID of the enrolled students.

3 Course ID (Integer): ID of the enrolled course.

1. Status (String): Enrollment status (eg., active, completed, left)

5 Grade (String): Final grade for the course (if applicable).

6 Semester (Integer): Semester or term during which the student is enrolled.

1. Enrollment Date (Integer): Date the students enrolled in the course.
2. Payment status (Integer): Status of course payment (if applicable).
3. Attendance Record (Integer): Record for attendance of the course.
4. Special Accommodations (String): Any accommodation required by the student.

**6 Grade:**

1 Grade ID (Integer): Unique identifier for the grade record

2 Student ID (Integer): ID of the student receiving the grade

3 Course ID (Integer): ID of the course for which the grade is given

4 Grade (String): The grade received (e.g., A, B, C, numerical score)

5 Assessment Date (Integer): Date the grade was assessed

6 Assignment ID (Integer): ID of the specific assignment or test (if applicable)

7 Comments (String): Instructor's comments or feedback

8 Weight (Integer): Weight of the grade in the overall course grade

9 Grade Type (String): Type of assessment (e.g., midterm, final, project)

1. Credit (Integer): Number of credits affected by the grade

**7 Attendance:**

1 Attendance ID (Integer): Unique identifier for the attendance record

2 Student ID (Integer): ID of the student

3 Class ID (Integer): ID of the class

4 Date (Integer): Date of the class session

5 Status (String): Attendance status (e.g., present, absent, late)

6 Reason for Absence (String): Reason why the student is absent

7 Time of Arrival (Integer): Time the student arrived in case the student is late.

8 Time of Departure (Integer): Time the student left early due to any reason.

9 Instructor ID (Integer): ID of the instructor taking attendance

1. Comments (String): Any additional comments about the attendance

**8 Schedule:**

1. Schedule ID (Integer): Unique identifier for the schedule
2. Class ID (Integer): ID of the class or course
3. Day of the Week (String): Day when the class is held
4. Start Time (Integer): Time when the class starts
5. End Time (Integer): Time when the class ends
6. Room Number (Integer): Room where the class takes place
7. Instructor ID (Integer): ID of the instructor teaching the class
8. Semester (Integer): Semester or term of the schedule
9. Frequency (String): How often the class occurs (e.g., weekly, bi-weekly)
10. Special Notes (String): Any special notes regarding the schedule

**9 Parent/Guardian:**

1. Parent ID (Integer): Unique identifier for the parent or guardian

2. First Name (String): First name of the parent or guardian

3. Last Name (String): Last name of the parent or guardian

4. Relationship to Student (String): Relationship (e.g., mother, father, guardian)

5. Contact Number (Integer): Phone number of the student’s parents or guardian

6. Email Address (String): Email address of the parent or guardian

7. Address (String): Home address of the parents or guardian

8. Student ID (Integer): ID of the child or children

9. Emergency Contact (Integer): Contact details for emergencies of the parents or guardian

10. Preferred Communication Method (String): How the parent prefers to be contacted (e.g., phone, email)

**10 Administrative Staff:**

1. Staff ID (Integer): Unique identifier for the staff member

2. First Name (String): First name of the staff member

3. Last Name (String): Last name of the staff member

4. Role (String): Role or title of the staff members (e.g., principal, secretary)

5. Department (String): Department where the staff member works

6. Contact Number (Integer): Phone number of the staff concerned

7. Email Address (String): Email address of the related administrative staff

8. Hire Date (Integer): Date the staff member was hired

9. Office Location (String): Office or work location of the institution

10. Schedule (Integer): Work schedule or hours of each administrative staff

