User table

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute** | **Data Type** | **Constraints** | **Description** |
| UserID | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique identifier for each user. |
| Password | VARCHAR(50) | NOT NULL | User's password for authentication. |

Student table

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute** | **Data Type** | **Constraints** | **Description** |
| StudentID | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique identifier for each student. |
| StudentName | VARCHAR(100) | NOT NULL | Full name of the student. |
| Year | INT | NOT NULL CHECK (Year > 0) | Year of study, must be a positive integer. |
| Section | VARCHAR(10) | NOT NULL | Section designation for the student. |

Professors table

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute** | **Data Type** | **Constraints** | **Description** |
| ProfessorID | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique identifier for each professor. |
| ProfessorName | VARCHAR(100) | NOT NULL | Full name of the professor. |
| DepartmentID | INT | NOT NULL | Identifier for the department the professor belongs to. |

Admin table

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute** | **Data Type** | **Constraints** | **Description** |
| adminId | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique identifier for each administrator. |
| adminName | VARCHAR(100) | NOT NULL | Full name of the administrator. |

Grade table

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute** | **Data Type** | **Constraints** | **Description** |
| GradeID | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique identifier for each grade record. |
| SubjectID | INT | NOT NULL | Identifier for the subject related to the grade. |
| StudentID | INT | NOT NULL | Identifier for the student receiving the grade. |
| GradeValue | INT | NOT NULL CHECK (GradeValue >= 0 AND GradeValue <= 100) | Numeric value representing the grade, typically between 0 and 100. |

Report table

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute** | **Data Type** | **Constraints** | **Description** |
| ReportID | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique identifier for each report. |
| Type | VARCHAR(100) | NOT NULL | Type or category of the report. |
| GeneratedBy | VARCHAR(100) | NOT NULL | Name of the user (admin, professor, etc.) who generated the report. |

Subject table

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute** | **Data Type** | **Constraints** | **Description** |
| SubjectID | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique identifier for each subject. |
| SubjectName | VARCHAR(100) | NOT NULL | Name of the subject being offered. |

Department table

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute** | **Data Type** | **Constraints** | **Description** |
| DepartmentID | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique identifier for each department. |
| DepartmentName | VARCHAR(100) | NOT NULL | Name of the department. |