**Lab 10 Snow College Data Dictionary with Field Specifications**

**Background Information**

Fill in the missing data marked with \*\*\*\*\*\* in the grid at the end of the document

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table | Field Name | Description | Key Type | Data Type | Length | Null Support | Index | Default Value | Value Range |
| Requisite | ReqID | Unique identification of each row | PK | INT |  |  | Yes |  |  |
| CourseID | Unique course id | FK | INT |  |  | Yes |  |  |
| \*\*\*\*\*\* | The id of the course that is a prerequsites of the course listed in CourseID | FK | INT |  |  | YES |  |  |
| ReqGPA | Minimum GPA required for prerequisite to be valid |  | Decimal | (3,2) | Null | No | 3.00 | 0.00 – 4.00 |
| ReqDateEstablished | Date the prerequisite rule was created |  | Date |  | Not null | Yes |  |  |
| Semester | SemID | Unique identifier for each semester | PK | INT |  | Not Null | Yes |  |  |
| SemName | Name of semester |  | Char | 10 | Not null | Yes |  |  |
| SemYear | Year of semester |  | Year | 4 | Not null | Yes |  | 2000 - 3000 |
| SemStartDate | Date of semester beginning |  | Date |  | Null | No |  |  |
| SemEndDate | Date of semester ending |  | Date |  | Null | No |  |  |
| Course | CourseID | Unique ID of specific course | PK | INT |  | Not null | Yes |  |  |
| CourseLongName | Full version of course name |  | Varchar | 75 | Null | No |  |  |
| CourseDescription | Description of course |  | text |  | Null | No |  |  |
| CreditHours | Number of credits |  | tinyint |  |  | no | 1 | 1 - 6 |
| Class | ClassID | Unique ID of the class | PK | INT |  | Not Null | Yes |  |  |
| StudentID | Unique ID of the student; FK | FK | INT |  | Not null | Yes |  |  |
| SemesterID | Unique ID of the Semester; FK | FK | INT |  | Not Null | Yes |  |  |
| ClassRegisterDate | The date of class registration |  | Date |  | Null | Yes |  |  |
| ClassLocation | Location of class |  | Varchar | 50 | Null |  |  |  |
| CourseID | ID of course | FK | INT |  | Not null | Yes |  |  |
| LecturerID | ID of Lecturer | FK | INT |  | Not Null | Yes |  |  |
| StudentClasses | StuClassID | Unique ID for each row in STUDENTCLASSES table | PK | INT |  | Not null | Yes |  |  |
|  | StuID | Unique ID of the student | FK | INT |  | Not null | Yes |  |  |
|  | ClassID | UniqueID of class | FK | INT |  | Not null | Yes |  |  |
|  | StuClassDate | Date and time that student enrolled in the class |  | TimeStamp |  | Not null |  |  |  |
| Lecturer | LecturerID | ID of Lecturer | PK | INT |  | Not null | Yes |  |  |
| LecLastName | Surname of lecturer |  | Varchar | 25 | Not null | Yes |  |  |
| LecFirstName | First name of lecturer |  | Varchar | 25 | Not null | Yes |  |  |
| LecMiddleName | Middle name of lecturer |  | Varchar | 25 | Null | No |  |  |
| LecEmail | College contact email for lecturer |  | Varchar | 50 | Not null | Yes |  |  |
| LecWTel | College work telephone for lecturer |  | Char | 10 | Null | Yes |  |  |
| Student | StuID | ID of a student | PK | INT |  | Not null | Yes |  |  |
| StuLastName | Surname of student |  | Varchar | 25 | Not null | Yes |  |  |
| StuFirstName | First name of student |  | Varchar | 25 | Not null | Yes |  |  |
| StuMiddleName | Middle name of student |  | Varchar | 25 | Null | No |  |  |
| StuEmail | College email of student |  | Varchar | 50 | Null | Yes |  |  |
| StuPhone | Phone number of student |  | Char | 10 | Null | Yes |  |  |
| StuStreet | Street address of students |  | varchar | 100 |  | yes |  |  |
| StuCity | The city name of student address |  | varchar | 25 |  | yes |  |  |
| StuState | The state name student address |  | char | 2 |  | yes |  |  |
| Stuzipcode | Zipcode of student address |  | char | 6 |  | yes |  | 00000 - 99999 |

**Exercises: Complete the following table of suggested entries for the above data dictionary.**

|  |  |  |
| --- | --- | --- |
| Missing Data | Your suggested entry | Justification for your suggested entry |
| 1. ReqGPA Default Value | 3.00 | Should be the universal passing grade of a prerequisite |
| 1. ReqGPA Value Range | 0.00 – 4.00 | The requisite GPA range should be on the 4 point scale that most schools abide by |
| 1. SemID key type: | INT | Is an auto-incremented unique identifier of each respective semester |
| 1. SemID null support: | Not Null | Cannot be null, as it defeats the purpose of it being a primary key otherwise. |
| 1. SemYear Length: | 4 | Will not be more or less than 4 digits for quite a while |
| 1. SemYear ValueRange | 2000 - 3000 | Depending on whether past documented classes would be included, going back to 2000 may be helpful, as well as extending to the year 3000 would be a good range for years. |
| 1. SemEndDate DataType: | Date | Should be a date data type, to correctly format the date of the semester |
| 1. CourseID Data Type: | INT | Is an auto-incremented unique identifier of each respective course and therefore cannot be null |
| 1. CreditHours Default Value | 1.00 | Explain the possible benefits of using a default value: Having null credits for a course that may not have credits (internships, or similar) may look odd on schedules or transcripts, which requires a default value for credithours |
| 1. Credit Hours Value Range: | 1 - 6 | One course usually does not have more than four or five credits, so to keep a buffer just in case, the range starts from the default value of 1 to 6 credits. |
| 1. ClassID Null Support: | Not Null | Is an auto-incremented unique identifier of each respective class, hence it cannot be null |
| 1. SemesterID as FK in Class Table -Null Support | Not Null | Explain the implications of allowing the FK to be null or not. Each class must be assigned to a Semester, but a semester may not have a class. This means that each class must have a non-null semester ID assigned as a FK |
| 1. ClassRegisterDate Data Type: | Date | Should be a date data type, to correctly format the date of the semester |
| 1. SemesterID Key Type: | FK | Is a foreign key that references the semester Table |
| 1. LecturerID as FK in Class – Null Support | Not null | Each class needs a lecturer to function, thus the LecturerID cannot be null |
| 1. StuEmail Null Support: | Null | Explain the implications of allowing the FK to be null or not. It can be null, as a student may not have an email or does not have one that is linked to the school’s information |
| 1. StuPhone Length: | 10 | Every phone number is 10 digits, so pretty cut an dry |
| 1. StuZipCode Value Range: | 000000 - 999999 | Should be able to encompass any zip code combination |
| 1. StuZipCode Default Value |  | Explain the possible benefits of using a default value. Each student must reside somewhere, therefore not allowing a null zip code my be helpful. X |
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