Student Table

|  |  |  |
| --- | --- | --- |
| Attribute | Data type | Justification |
| Stud\_id | Integer | Student ids are usually numbers. We could use smallint but if there is an influx of students, we will run out of ids. Integer would be a safer choice. |
| stud\_name | Varchar(40) | Accounts for first name, middle, last names and whitespaces in between. The length of a name can vary significantly. |
| Stud\_phone | Varchar(15) | Mobile phone numbers are generally 10 digits but depending on the formatting such as hyphens/spaces or brackets for area code, it can be longer. |
| Stud\_date\_of\_birth | Date | It’s a date |
| Stud\_city | Varchar(20) | The length of suburb names can be significant. |
| Stud\_address | Varchar(100) | This is excluding the city name |
| Stud\_postcode | Smallint | Postcodes in Australia only have 4 digits |

Subject Table

|  |  |  |
| --- | --- | --- |
| Attribute | Data type | Justification |
| Subj\_code | Char(7) | A subject code contains 3 letters and 4 numbers |
| Subj\_title | Varchar(60) | Some subject titles are long. Fundamentals of data management has 31 characters. |

Subj\_Enrolment Table

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| --- | --- | --- |
| Attribute | Data type | Justification |
| Stud\_id | Integer | Student ids are usually numbers. We could use smallint but if there is an influx of students, we will run out of ids. Integer would be a safer choice. |
| Subj\_code | Char(7) | A subject code contains 3 letters and 4 numbers. |
| Semester | Char(1) | There are only two options, either semester 1 or semester 2. It isn’t used for any calculations, so it doesn’t need to be an integer. |
| Year | Year | Stores year in 2- or 4-digit format |
| Comment | Varchar(255) | It may be blank or long. It is not clear what goes into comment. |

Grade Table

|  |  |  |
| --- | --- | --- |
| Attribute | Data type | Justification |
| Stud\_id | Integer | Student ids are usually numbers. We could use smallint but if there is an influx of students, we will run out of ids. Integer would be a safer choice. |
| Subj\_code | Char(7) | A subject code contains 3 letters and 4 numbers |
| Semester | Char(1) | There are only two options, either semester 1 or semester 2. It isn’t used for any calculations, so it doesn’t need to be an integer. |
| Year | Year | Stores year in 2- or 4-digit format |
| Grade | Char(2) | Using varchar is not very meaningful as the value can only be one or two values long. |