|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| stud\_id | stud\_name | subj\_code | subj\_title | Sem | Year | staff\_id | convenor | Mark | Grade |
| 1234 | John Smith | ITM2005 | System Architecture | 1 | 2015 | 111 | Bob Hauser | 83 | D |
| 1234 | John Smith | ACS1005 | Data Mgmt | 2 | 2015 | 222 | Jane Collins | 44 | N |
| 9555 | Peter Nguyen | ITM20005 | System Architecture | 1 | 2015 | 111 | Bob Hauser | 95 | HD |
| 9555 | Peter Nguyen | PRG1001 | Programming I | 2 | 2015 | 333 | Ahmad Singh | 65 | C |

The original table had many attributes that were multivalued. The entries in these multivalued attributes are in the same order, so we need to find the second entry in subj\_code to match the second entry in grade if we want to know how well a student performed in a subject. We simply give each of the subject a row by itself. Each subject now has a tuple to itself. The entries in each column are the same type. It is important to achieve 1NF as it eliminates redundancy, reducing data inconsistency issues by ensuring the table has no repeating groups. To further eliminate multivalued attributes, we also must break sem\_year into separate attributes, sem and year. The same has to be done for grade attribute.