**1NF:**

**Department**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Dept\_id | Dept\_name | Phone\_no | Fax\_no | Location | Dept\_manager | Mgr\_start\_date |

dept\_id 🡪 dept\_name, phone\_no, fax\_no, location **Fd1**

dept\_manager 🡪 mgr\_start\_date **Fd2**

**Course**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Course\_code | Course\_title | Duration | Course\_leader | Dept\_id |

course\_code 🡪 course\_title, duration, course\_leader, dept\_id **Fd3**

**Module**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Module\_code | Module\_title | Start\_date | End\_date | Module\_coordinator | Course\_code |

module\_code 🡪 module\_title, start\_date, end\_date, module\_coordinator, course\_code **Fd4**

**Assessment**

|  |  |  |  |
| --- | --- | --- | --- |
| Assessment\_id | Module\_code | Type | Weight |

Assessment\_id 🡪 module\_code, type, weight **Fd5**

**Text**

(Assuming each text is only associated with one module)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Isbn | Title | Publisher | Author | Edition | Module\_code |

Isbn 🡪 title, publisher, author, edition, module\_code **Fd6**

**StudentAddress**

(Assuming many students may share the same address)

|  |  |  |  |
| --- | --- | --- | --- |
| Address\_id | Town | Street | Post\_code |

Address\_id 🡪 town, street, post\_code **Fd7**

**StudentAssessment**

(Assuming a student will take assessments pertaining to the modules they are taking)

|  |  |  |
| --- | --- | --- |
| Assessment\_id | Matriculation\_no | grade |

Assessment\_id, matriculation\_no 🡪 grade **Fd8**

**Student**

(The assessment requirements tell us to assume a next-of-kin is a next-of-kin of one student only. No next-of-kin related attribute can be solely derived from another next-of-kin related attribute. Every next-of-kin related attribute is functionally dependent on the student.)



matriculation\_no 🡪 first\_name, last\_name, DOB, sex, financial\_loan, nok\_name, nok\_address, nok\_phone, nok\_relationship, user\_id, course\_code, address\_id **Fd9**

matriculation\_no, module\_code 🡪 performance **Fd10**

**AcademicStaff**



Staff\_id 🡪 first\_name, last\_name, phone\_extention\_no, office\_no, sex, salary, post, qualifications, address, user\_id, dept\_id **Fd11**

Staff\_id, module\_code 🡪 hours\_per\_week **Fd12**

**2NF**

Fd9 violates 2NF





Fd11 violates 2NF





**3NF**

Fd2 violates 3NF





**Resultant tables**:

Department

A close-up of a chart

Description automatically generated

DepartmentManager



Course



Module



Assessment



Text



StudentModule



StudentAssessment



Address



Student



AcademicStaff



Teaching

