1NF

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **SID** | **CID** | **S\_name** | **C\_name** | **Grade** | **Faculty** | **F\_phone** |
| 1 | IS318 | Adams | Database | A | Howser | 60192 |
| 1 | IS301 | Adams | Program | B | Langley | 45869 |
| 2 | IS318 | Jones | Database | A | Howser | 60192 |
| 3 | IS318 | Smith | Database | B | Howser | 60192 |
| 4 | IS301 | Baker | Program | A | Langley | 45869 |
| 4 | IS318 | Baker | Database | B | Howser | 60192 |

2NF

**Student table (key = SID)**

|  |  |
| --- | --- |
| **SID** | **S\_name** |
| 1 | Adams |
| 2 | Jones |
| 3 | Smith |
| 4 | Baker |

**Class table (key = CID)**

|  |  |  |  |
| --- | --- | --- | --- |
| **CID** | **C\_name** | **Faculty** | **F\_phone** |
| IS318 | Database | Howser | 60192 |
| IS301 | Program | Langley | 45869 |

**Result table (key = SID + CID)**

|  |  |  |
| --- | --- | --- |
| **SID** | **CID** | **Grade** |
| 1 | IS381 | A |
| 1 | IS301 | B |
| 2 | IS318 | A |
| 3 | IS318 | B |
| 4 | IS301 | A |
| 4 | IS318 | B |

Relation

**Student table (key = SID)**

|  |  |
| --- | --- |
| **SID** | **S\_name** |
| 1 | Adams |
| 2 | Jones |
| 3 | Smith |
| 4 | Baker |

|  |  |  |  |
| --- | --- | --- | --- |
| **CID** | **C\_name** | **Faculty** | **F\_phone** |
| IS318 | Database | Howser | 60192 |
| IS301 | Program | Langley | 45869 |

**1**

**1 Class table (key = CID)**

**n n**

|  |  |  |
| --- | --- | --- |
| **SID** | **CID** | **Grade** |
| 1 | IS381 | A |
| 1 | IS301 | B |
| 2 | IS318 | A |
| 3 | IS318 | B |
| 4 | IS301 | A |
| 4 | IS318 | B |

**Result table (key = SID + CID)**

3NF

**Student table (key = SID)**

|  |  |
| --- | --- |
| **SID** | **S\_name** |
| 1 | Adams |
| 2 | Jones |
| 3 | Smith |
| 4 | Baker |

|  |  |  |
| --- | --- | --- |
| **CID** | **C\_name** | **Faculty** |
| IS318 | Database | Howser |
| IS301 | Program | Langley |

**1**

|  |  |
| --- | --- |
| **Faculty** | **F\_phone** |
| Howser | 60192 |
| Langley | 45869 |

**1 Class table (key = CID) n 1**

**n n Faculty table (key = faculty)**

|  |  |  |
| --- | --- | --- |
| **SID** | **CID** | **Grade** |
| 1 | IS381 | A |
| 1 | IS301 | B |
| 2 | IS318 | A |
| 3 | IS318 | B |
| 4 | IS301 | A |
| 4 | IS318 | B |

**Result table (key = SID + CID)**