**NORMALISATION**

**First Normal Form**

First Normal Form States that the domain of any attribute must include only the atomic values(simple and indivisible) and the value of any attribute in a tuple must be single value from the domain of that attribute.

**File\_Fir**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Fir\_id** | Incident\_place | Incident\_date | Suspect\_name | Type\_of\_crime | Items\_lost | Officer\_id | status |

**Victim**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | **Victim\_id** | Phone\_no | Incident\_place | Address | Fir\_id |

**Password**

|  |  |  |
| --- | --- | --- |
| **Uname** | **Password** | **User\_type** |

**Criminal**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Criminal\_id** | Name | Modus\_operandi | address | aliases | Wanted\_case | Wanted\_sections | Fir\_id |

**Jail**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Criminal\_id** | **Fir\_id** | Begin\_date | End\_date | Caught\_under\_sections |

**Suspect**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fir\_id | **Suspect\_id** | Addresss | Aliases | Previous\_history |

**Lost\_found**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item\_type | Date\_of\_loss | Estimated\_cost | Status | Fir\_id |

**Investigation\_officer**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | **O\_id** | Start\_date | Station | Fir\_id |

**Second Normal Form**

Second normal form is based on the concept of full functional dependency. A relational schema is said to be in 2NF if every non prime attribute A in R is fully functionally dependent on the prime key of R.

Since no non prime key is partially dependent on primary key, all tables are in 2NF.

**Third Normal Form**

Third Normal Form(3NF) is based on the concept of transitive dependency. A Functionally dependency X->Y in a relation schema R is a Transitive Dependency if there is a set of attribute Z that is neither a candidate nor a primary key of R and both X->Z and Z->Y holds good.

Since there is no transitive dependency, all tables are in 3NF.