**1st Normal form**

* As per the rule of first normal form, an attribute (column) of a table cannot hold multiple values. It should hold only atomic values.

Contents

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Id | Name | Year | Prod | Season | Episodes | Duration | Type | Rating | genera |
| 1 | H | 1997 | Str | 1 | 12 | 2:00 | serial | 4 | funny |
| 2 | T | 1998 | Hp | - | - | 2:00 | movie | 5 | Action |
| 3 | R | 2001 | Accer | - | 12 | 5:00 | wS | 3 | Romantic |

So in this case it also satisfied in 1st normal form

User

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name | Address | Number | Status | Gender | Payment | Cvc | Card | balance |
| H | Xyz | 001  001 | Active | Male | - | - | - | - |

In that case user table have not in normal form

So we apply constrains that user only able to enter single number

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name | Address | Number | Status | Gender | Payment | Cvc | Card | balance |
| H | Xyz | 001 | Active | Male | - | - | - | - |

**2nd normal form**

* A table is said to be in 2NF if both the following conditions hold:
  + Table is in 1NF (First normal form)
  + No non-prime attribute is dependent on the proper subset of any candidate key of table

User.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name | Address | Number | Status | Gender | Payment | Cvc | Card | balance |
| H | Xyz | 001 | Active | Male | - | - | - | - |

In this table that the payment method is depends upon the user if user can transfer it.

That it can’t be transfer so we just remove transitive decency and create another table

User

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Address | Number | Status |
| H | Xyz | 001 | Active |

|  |  |  |  |
| --- | --- | --- | --- |
| Payment | Cvc | Card | balance |
| - | - | - | - |

Payment

**3rd normal form**

* + Table must be in 2NF
  + Transitive functional dependency of non-prime attribute on any super key should be removed**.**

so my user table and payment table full fill 3rd NF but the content is not fulfill 3rd NF because in this table the content columns contents-> columns,season,epsidoes

is directly deponds on movies id if we have movies and some season so in that case season have several series but movies have one series so we divide the content into 3 tables

Wserial

|  |  |  |
| --- | --- | --- |
| C\_ID | Id | Episodes |
| 1 | 12 | 5 |
| 2 | 14 | 5 |

C\_movies

|  |  |  |
| --- | --- | --- |
| C\_ID | Id | duration |
| 2 | 27 | 5:00 |
| 1 | 37 | 5:45 |

C\_Serial

|  |  |  |  |
| --- | --- | --- | --- |
| C\_id | Id | Season | Episodes |
| 1 | 31 | 1 | 5 |
| 1 | 10 | 2 | 3 |

Genere

|  |  |
| --- | --- |
| G\_Id | Type |
| 1 | Funny |
| 2 | comedy |

Contents

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Id | G\_id | Name | Year | Production | rating |
| 27 | 1 | H | 1997 | Star | 5.0 |
| 31 | 2 | Y | 2012 | Lamp | 3.0s |