First Normal Form

Sales Order

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sales Order Number | Sales Order Date | Customer  Name | Customer  Number | Customer  City | ZIP | Customer Street Number | Clerk  Name | Clerk  Number |

Item Order

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sales Order Number | Item Order | Description | Quantity | Unit Price | Total |

* Store all Multi Values in new table + foreign key of [Base Table]

Second Normal Form

Sales Order

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sales Order Number | Sales Order Date | Customer  Name | Customer  Number | Customer  Street Number | Customer  City | ZIP | Clerk  Name | Clerk  Number |

Item Order

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sales Order Number | Item Order | Description | Quantity | Unit Price | Total |

Item Schema

|  |  |  |
| --- | --- | --- |
| Item Order | Description | Unit Price |

* In All Schemas apply in Second Normal Form
* No Multivalued
* No Partial Dependency [All in Functional Dependency]

Third Normal Form

* Customer name , Customer Address 🡺 not depend on Sales Order Number [but dependent on Customer Number ]
* Clerk Name 🡺 dependent on Clerk Number

Sales Order

|  |  |  |  |
| --- | --- | --- | --- |
| Sales Order Number | Sales Order Date | Customer Number | Clerk Number |

Customer

|  |  |  |  |
| --- | --- | --- | --- |
| Customer Name | Customer Number | Customer Street Number | City |

Address

|  |  |  |
| --- | --- | --- |
| ZipNumber | City | ID |

Clerk

|  |  |
| --- | --- |
| Clerk Name | Clerk Number |

Item Order

|  |  |  |  |
| --- | --- | --- | --- |
| Sales Order Number | Item Order | Quantity | Total |

Item Schema

|  |  |  |
| --- | --- | --- |
| Item Order | Description | Unit Price |