ER Diagram – helpful to check how database interacts with each other

Entity- can be a object for example- customer, order, product

Cardinality relationship – describes how the entities interact with each other

Zero or many – A customer could have 0 order and also could have many orders

One and only one- only one customer can have many oders

One or many - a order can have 1 or many products

Zero or many -A poduct can be a part of no order and also can be a part of many orders

One or many

One and only one many

|  |  |  |
| --- | --- | --- |
| Order | | |
| PK  FK  FK | Orde\_id  Cust\_id  City  Street  Prod\_id |  |

|  |  |  |
| --- | --- | --- |
| Customer | | |
| PK | Cust\_id  Fisrt\_name  Last\_name |  |

|  |  |  |
| --- | --- | --- |
| Product | | |
| PK | Prod\_Id |  |

Zero or many

For split address we can use migration script here we will add new columns with new column name

In Migration script we can split data without actually losing data

It copies the data from the original column to the new column

Firstly we need to create new column –

ALTER TABLE Table\_name ADD

Address\_new VARCHAR(25) ,

State\_code VARCHAR(25),

Pin VARCHAR(25)

For copy and split data

UPDATE Table\_name SET

Address\_new = SUBSTRING(Address, CHARINDEX(‘ , ‘ , Address) -1),

State\_Code = SUBSTRING(SUBSTRING(Address, CHARINDEX(‘ , ‘ , Address) +1), CHARINDEX(‘ ‘ , Address) -1),

Pin = SUBSTRING(Address, CHARINDEX(‘ ‘ , Address) +1),

LEN(Address)

Drop Older column from original table

ALTER TABLE Table\_name DRPL COLUMN Address

Address\_new = SUBSTRING(Address, CHARINDEX(‘ , ‘ , Address) -1),

State = SUBSTRING (Address, CHARINDEX(‘ , ’ Address) +2 ),

Pin = RIGHT(Address, CHARINDEX(‘ ’, Address ) +1)