DATABASE DESIGN ASSIGNMENT

Cart
- id
- id (FK)

Seller
- id
- email
- phone
- passoword

user_address
- user_id (FK)
- Address_id (FK)

Cart_item
- id
- Quantity
- Produsct_id (FK)
- Cart_id (FK)

Buyer
- id
- email
- phone
- password

Address
- id
- Line1
- Line2

Product
- id
- name
- description
- image
- Quantity
- Seller_id (FK)
- promotion_id (FK)

Promotion
- id
- name
- description
- discount

Order_item
- id
- Quantity
- Price_total
- Order_id (FK)
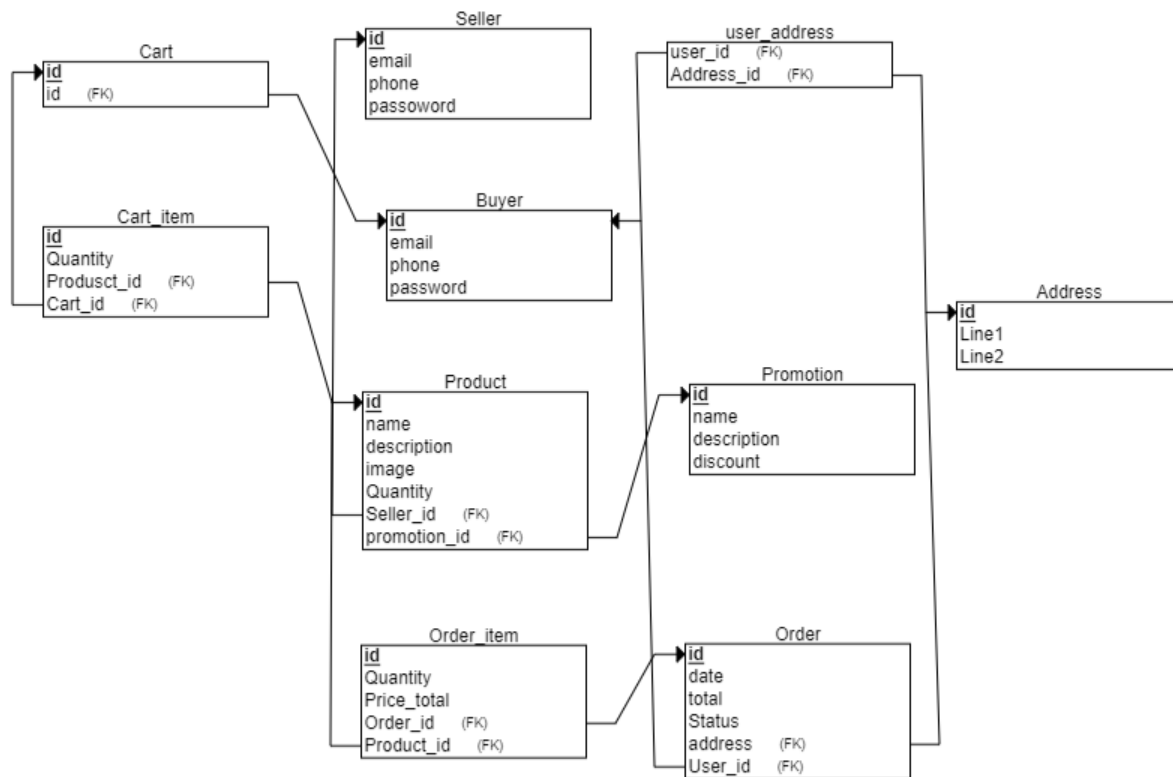- Product_id (FK)

Order
- id
- date
- total
- Status
- address (FK)
- User_id (FK)

Major factors taken into consideration is that we have gone with a shared database microservice architecture. This way parts of the data arent off limits to one service if the other is down.

The database is efficiently designed in third normal form. Denormalization is not taken into consideration because the number of rentities is fairly low.

For scaling purposes we will try to use no sql databases to allow both horizontal and vertical scaling.

We have taken the assumption that Cart is separate from the Order as order is generated via the cart using the application. Cart shall remain as it is despite the oder being fulfilled.