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- Problem Statement
  People usually buy things they want directly from the store. However, the process of going to the store in person tends to take more of people's time, energy, and money. I believe that this is a potential problem, especially around these days, when the world is going through inflation in resources (e.g., groceries, gas, etc.).

  Moreover, people that want to sell their products also have the same problems. When they want to distribute their products, they will have to go to the store to ship their products directly. Imagine that they have to do that to more than one store - they will have to spend a lot of their time and energy, along with their money.

- Solution Statement
  We created our e-commerce project to solve the problems that buyers have. We can save their energy and time by having their purchases and orders delivered right away to their shipment address. Moreover, I believe that this will cost them less money, as they do not have to go all the way to the store to get it.

  For the product sellers, they also do not have to go to stores to distribute their products. Simply by posting their products in our e-commerce project, they are able to sell their products to buyers. This gives an easier access to buying-selling activities.

- User
  As I mentioned, there will be two typical users that will use this project: buyers and sellers. Buyers are the ones who will buy products sold in the project. Sellers are the ones selling products in the project. In order for the sellers to let the buyers purchase their products, they have to post their products along with the information about the products (e.g., price, quantity, product name, product category, etc.).

  The buyer will be able to view those products, and they will be able to add them to their cart. Once these products are added to cart by buyers, they can either pay them later (make a PENDING order), checkout (make a SUCCESS order), or cancel (make a CANCELED order). When a success order is created, they will be able to view that as a transaction as well. The transaction will list the shipment provider, which is responsible to ship their products to their shipping address.

- Domain Objects
  We have several domain objects, here is two of them:
  - Product:
    This is a domain object that is related to the seller, where one seller can post / have many products (one to many relation). Products have several attributes, which are the product's name, product's manufacturer, product's price, and

product's quantity. This domain object has an object that extends it, called purchases. Purchase is the product that is purchased in an order issued by the buyers. Products object will be responsible to be the information provider for the purchases. For instance, the purchase object has to know the product's name and product's manufacturer so that it can be viewable by the buyer in their orders. The price and quantity of the product will be the threshold for the buyer when he/she tries to add the product to the cart and make an order out of it.

- Order:
  This is a domain object that is related to the buyer, where one buyer can have / issue many orders (one to many relation). Order has several attributes, which are … . Orders have many purchases, which will be viewable by the buyers that have the orders. Orders can have three status: PENDING, SUCCESS, and CANCELED. PENDING is the order that has not been paid by the buyer. SUCCESS is the order that has been paid by the buyer. CANCELED is the order that is canceled by the buyer. Once the order becomes SUCCESS, a transaction of this success order will be created. The transaction will have the shipment provider, which is responsible to ship the products to the buyers' shipping address.

Team

- Tarcisius Daniel Hartanto:
  - Works on the UI created in ReactJS
- Gayatri Birthare:
  - Works on the Java JDBC and DAOs in IntelliJ
  - Works on hosting the DB in AWS RDS

We both work on the creation of the ER model and making it to tables in MySQL using MySQL workbench

User Interface Enhancements:

1. If the record being edited is on the many side of a 1 to many relationship, then add a link to the record on the 1 side's edit screen : In our case, Seller can add multiple products. So in edit screen of Seller's information, we have added an edit link to his/her products. He/She can edit or delete the products he has added earlier.
2. If the record being edited is in a 1 to 1 relationship, then add a link the other record's edit screen : In this case, we have a buyer who will always have one cart assigned to him/her. So to fulfill this requirement we have added an Edit Cart button on Buyer's Edit page and on click this button, buyer will be redirected to his/her cart page for any modifications.

3. If the record being edited is on the one side of a 1 to many relationship, then Add a single link that navigates to a list screen that displays the associated records on the many side : For this scenario, we have order-to-many purchase items. We have provided a “List all ordered products” button which will redirect a buyer to the list screen of all ordered products for that orderId.