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SQL Document

To create the IS-A relationship or shared primary key relationship between User and Admin, Customer, and Vendor we first created User similar to our ER diagram. User has a primary key called UserID. For Admin, Customer, and Vendor we gave each their own primary key ID but this ID attribute is also a foreign key to the UserID in the User table. This way, we can easily control ID's among all types of Users without having the issue of two different Users both having the same ID.

For admins, instead of having an attribute called privileges, we decided to make a new entity called Privilege. In Privilege, there is PrivilegeID (primary key), an AdminID (foreign key to UserID in the Admin entity), and the specific privilege. This table would be used to look up what specific privileges any admin has.

Payment option was split into two new tables called Payment and Return. Payment and Return both have very similar attributes, but Payment is for Customers and Return is for Vendors. This is because Vendors do not pay any money unless an item is being returned to them. So, Payment has a foreign key CustomerID that references Customer and Return has a foreign key VendorID that references Vendor.

Certain entities were given their own ID's just to keep things neat. For example, OrderDetail, Review, Shopping Cart, Inventory, etc. were given their own ID's. These ID's became the primary key for each of these entities.

Another change was for Customers and Vendors. In our diagram, we gave both entities two set valued attributes: Payment Options and OrderIDs. While making the SQL statements we realized this was the wrong approach. So, instead we made foreign keys in Payment/Return and Order entities. Payment/Return was discussed above. For Order, we have a foreign key CustomerID and VendorID which both reference Customer and Vendor, respectively.

For Orders, we previously had an attribute only called "Shipping Address". In our SQL we have expanded this into multiple attributes: Street, ZIP, City, State, and Country. This just makes it easier by breaking up the different components.