*E-Commerce Backend Design Doc*

We need to build a backend feature for an e-commerce company. Our end-user is someone who wants to add, delete, update, query about, or buy one or more products. So, we need a robust system to give them the best possible experience.

*Requirements:*

* A user should be able to search for a particular product.
  + Searching could be done based on name, product number, batch number, model number, etc.
* A user could add and modify a particular product.
  + Addition will involve
  + Modification means an increase/decrease in the quantity of the items of that product.
* A user could checkout from the cart, or buy a product directly (temporary single-item cart)
  + Include new user creation/sign-in (if not signed in)
  + Addition/selection of address
  + Selection of payment method
  + Confirmation post-payment (email also)
* Login / Signup
* Fetching some random products from the products DB to view on the front page.

*DB Designs:*

User:

* id
* name
* password
* phone number
* email-id
* delivery address (optional during signup)
* cart (list of product ids + qty)
* orders (list of order ids)
* feedbacks
* createdAt
* updatedAt

Product:

* id
* model number
* name
* category
* description (images also)
* price
* discount %
* feedback/rating
* in-stock
* createdAt
* updatedAt

Payments:

* id
* orderId
* amount
* userBankDetails
* status
* createdAt
* updatedAt

Orders:

* id
* userId
* paymentId
* deliveryAgentId
* deliveryAddress
* wareHouse
* typeofDelivery [1-Day, 2-Day, Normal]
* status
* createdAt
* updatedAt

DeliveryAgents:

* id
* name
* dob
* address
* areaAllocated
* salary
* createdAt
* updatedAt