**DigiMark**

\*The following is what we understood from the documentation:

* Problem:
  + There are multiple fake products around us, and we need to identify the product.
    - Right now, we don’t have any tool to track or identify the product.
    - Don’t have any system that gives certificates and accounting.
  + Because of that they down the market value of that product.
* Problem For the
  + Consumer:
    - They received fake products.
    - Financial loss
    - Safety concerns
  + Brand manufactures:
    - Loss revenue
    - Down market shares
    - Damaging brand reputation
    - Struggle with tracking their product.
  + Authorities:
    - Face challenges to protect consumer rights.
  + System users:
    - Retailers and certification agencies face inefficiencies in verifying product authenticity and then increase costs.
* What is DigiMark?
  + Digital platform to authenticate and track x-commodities.
  + Through the
    - Combination of unique/digital labels
    - Digital certificate
    - Blockchain technology
  + Enhance traceability, integrity, transparency and enhance consumer confidence.
  + It will use the web app, web services, and integrated verification (Take a pic from your phone)
  + Unique physical labels, digital certificates, and blockchain.
  + Users will be.
    - Individual
    - Organization
    - Manufacturers
    - Sellers
    - Insures
    - Bank
    - Authority
    - Government authority
* Leading ideas
  + Three factors
    - Zip code inside or above the product.
    - Unique Digi mark of each product
    - Physical and geometric dynamic model
  + Digital system provides creation, linking, and storing.
  + Digital images of each component of the DM-LCM bundles are stored in a private blockchain network.
  + QR Codes [we can implement]
  + NFC Tag [we can implement]
* Goals:
  + Digital mark certificate stored in a private blockchain.
  + Pointing a camera on a smartphone/tablet at the label on the product.
  + Marketplace that brings individuals and organizations.
  + Processing information at the Movement, purchase, and sale.
* Domain specific issue:
  + Some commodities compound with other commodities.

**Here are some points which we can implement.**

* User’s point of view
  + General issue
    - When an organization creates a sub-user, they also ask for the organization ID, ID card, etc.
* Non-Functional:
  + Reliability
    - Data backup frequently
* Action with x-commodities belongs to a user.
  + 3D Model using AR and we can also use 360 views for the commodities.
* Search:
  + We can also search for the brand-new or secondary product.
* Communication with other users
  + We can add a block feature to the chat.
* Subscription:
  + We suggest them to keep the free plan for 1 month so that users can understand how the app works.
* Blockchain
  + We can use a smart contract for the logic of the tracking purpose.
    - Recording transactions
    - Validating data
    - All the tracking information
  + Real-time tracking.
  + We can add products as NFTs and if the product gets out of stock, then we can pause that product.
  + And if any retailer buys that product, then we can transfer the ownership to them.
  + We can use verification through blockchain before the payment.
* Payment
  + We can use payment gateways like PayPal.
  + Explore cryptocurrency payment gateways such as Bit Pay, Coin Gate, or Coinbase Commerce for accepting cryptocurrency payments.