Draft

A Show Owner ▸ SO

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Logic

- To help make SO. work by Automatic Payment and Stock manage System
- Automatic Payment System
  a system that control all over the Cashier Section and entrance which cover Item Checkout and Payment System

  - Payment System

    3 Sol. 1. Wallet | face detection
    each Customer must register their face and Scan Personal Info on our System and must refill their wallet or bind to bank Account
    Pros: Customer did have to bring anything to buy things better user experience
    Just open their face to the Scaler and its buy Cool
    Cons: 1. use Consent
    2. Possible fake detect
    3. User must bind their face, meanwhile should delay the shopping
    4. Only for registered User

    2. Qrcode / RFID | Scanning
    each Customer doesn't have to register to our app. (No Customer side)
    when user Checkout they have to use store device as Phone to scan and Pay their bill
    Pros: easy to Implement and easy to understand and open for all customers.
    Cons: 1. Not Cool
    2. user have to bring a device as phone ★ not that Inconvenience but it's a cons
    3. we will have lesser Infos about customer

    3. Combine | face detection | Scanning
    Customer may use any Solution to make a Payment but to use Wallet I.e. face detection they must register and Accept our Consent
    Pros: open for any Customer and Pay Cool and easy to use
    Cons: 1. Complexity Information
    2. work

  - Item Checkout

    4. Sols. 1. Conveyors | Conveyors | object Detect
    use Conveyors belt like a Supermarket to slide Item to Scanning Section.
    Pros: 1. easy Implement
    2. Can be design to Automatically Put Item into the Plastic bag
    Cons: 1. expensive and Slow
    2. Maybe too big
    3. Must have a good design

    2. RFID | RFID | Specific Product Cartons
    Use RFID to keep track of all Item on Shelf
    Pros: 1. easy to use
    2. Item tracking quality
    3. Can be combine with the basket
    Cons: 1. SO. must buy new Shelf for this method // which I'm not Prefer
    2. Complicate design
    3. low fetch
    4. SO. must Register Product to the System

    3. Basket
    User must Pick a basket (that mean more cost) to enter the store and Can be Checked into 2 method
    - Object Detection
      user checkout by Place a basket into object Detection System
      Pros: 1. low cost
      2. Cool
      cons: 1. Cannot detect Around Item ★ ★
      2. hard Implementation
    - RFID
      Combining with RFID Its become easier for user.
      basket will have RFID Module to keep track of item in basket
      we only Scan their basket at the Cashier and Checkout
      Pros: 1. easy for user 2. Can track all of the Product
      Cons: 1. make challenge
      2. Costly

    4. User self Scan
    User must Scan their Item to checkout
    - barcode Scanner
      you know what's like
      Pros: 1. very easy to Implement
      2. low cost
      cons: 1. bad UX
      2. User may fake ★ Store without RFID theft scanner
    - object Detection ★ POC for our project
      User must show the Item to the device to detect
      Pros: 1. easy to Implement
      2. low cost than barcode Scanner
      cons: 1. bad UX
      2. User may Stole

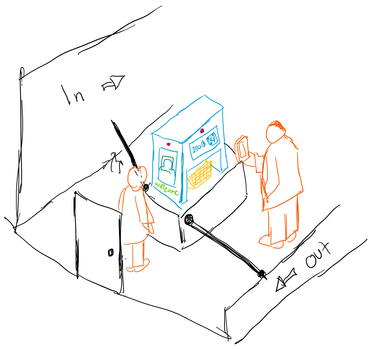
- Validation System

  will not cover Stolen by hiding Item if Store doesn't have their detector

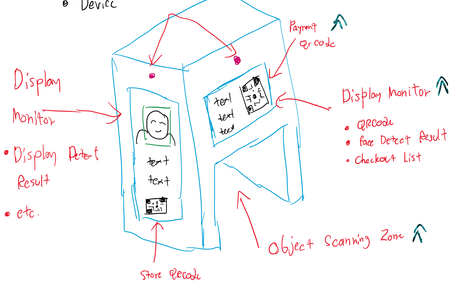
  - Found
    - face detection System ★
      // todo
    - object Detection System ★
      // todo
    - Multi object Detection System
      // todo
  - Stolen
    - User not checking out
      1. open the door only when checkout Success
      2. User must Scan their face before enter the store ★ after open the door

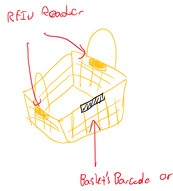
- Stock management
  - keep track of all Item Sold and Restock
  - Remotely Close and open store
  - Can change the price of the Item
  - Customer Can View the Price of the Item before consider to buy

- Design
  - full Scene



- Device





★ Phase 1 Prefer