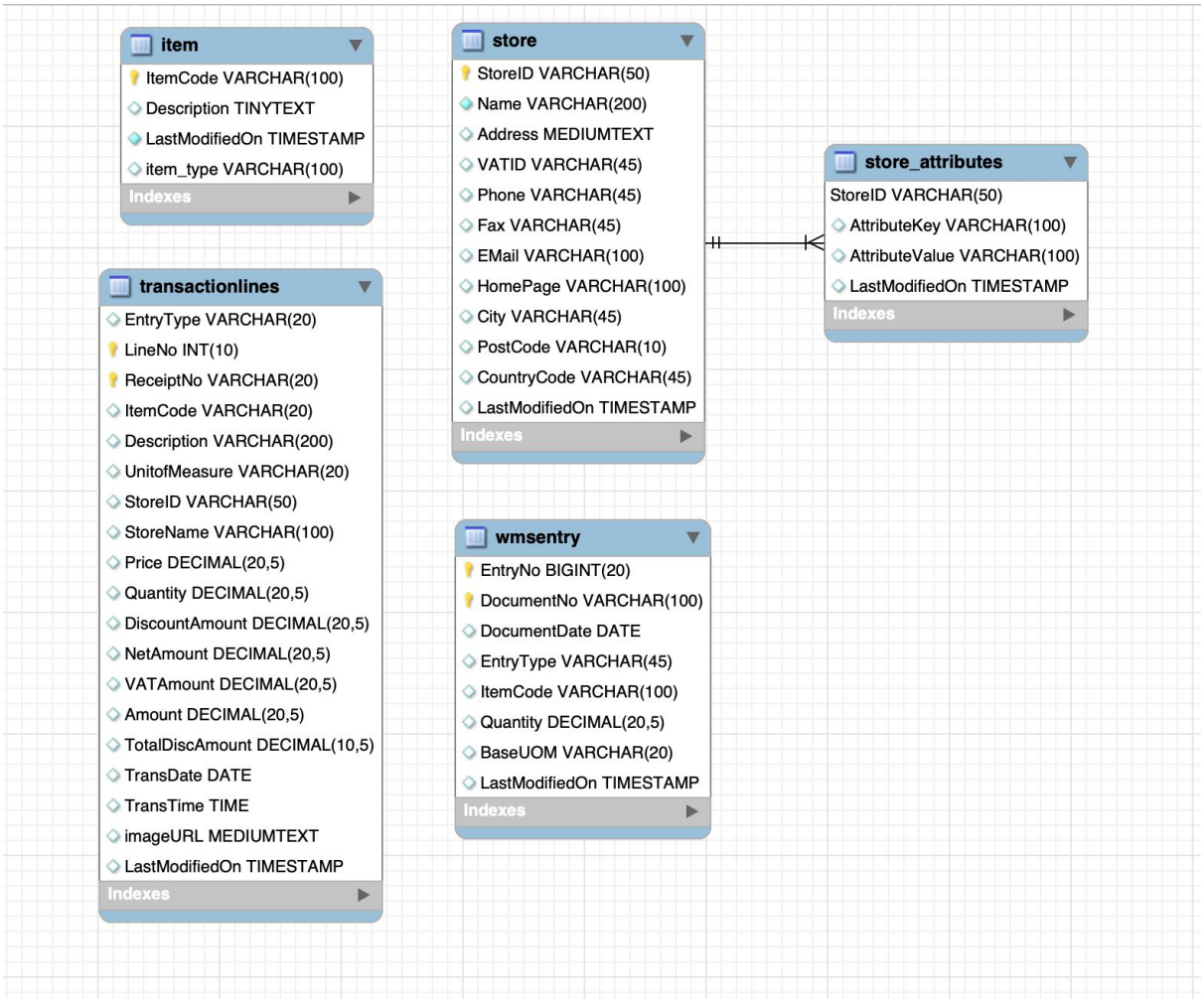
Design doc

Theme: Dunzo
https://docs.google.com/document/d/1z6akRKEMuKi7Et1G8DoITJKwB1PWkrgB5Fu8cOq1Pn0/edit?ts=5d411e0a

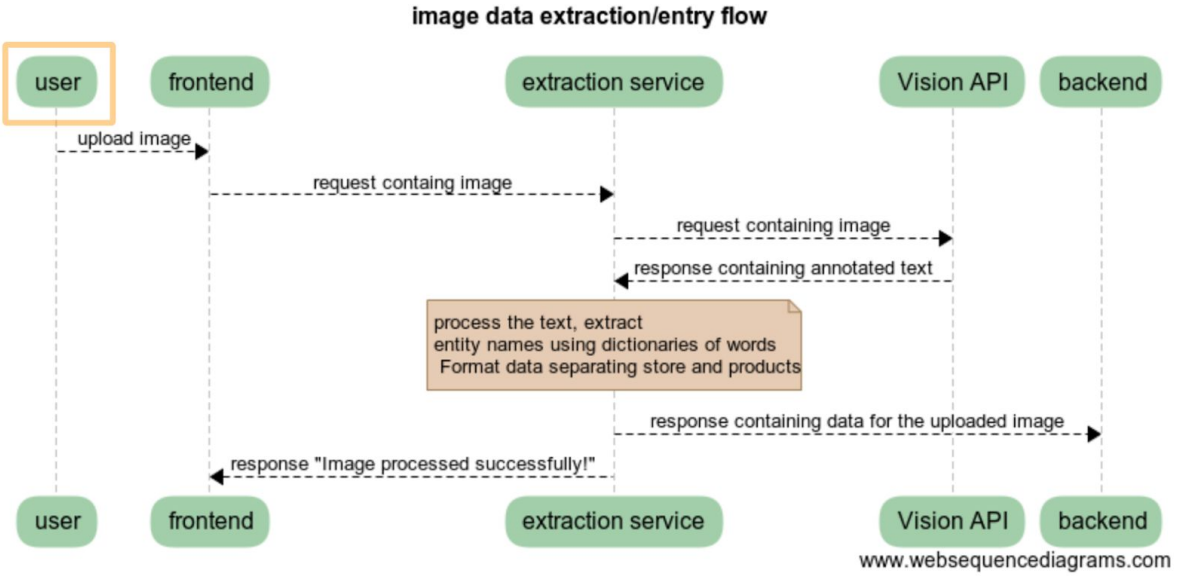
Objective: To create a catalog of items (food, grocery, electronics and so on) and the stores which contain those items using the receipts uploaded by the riders.

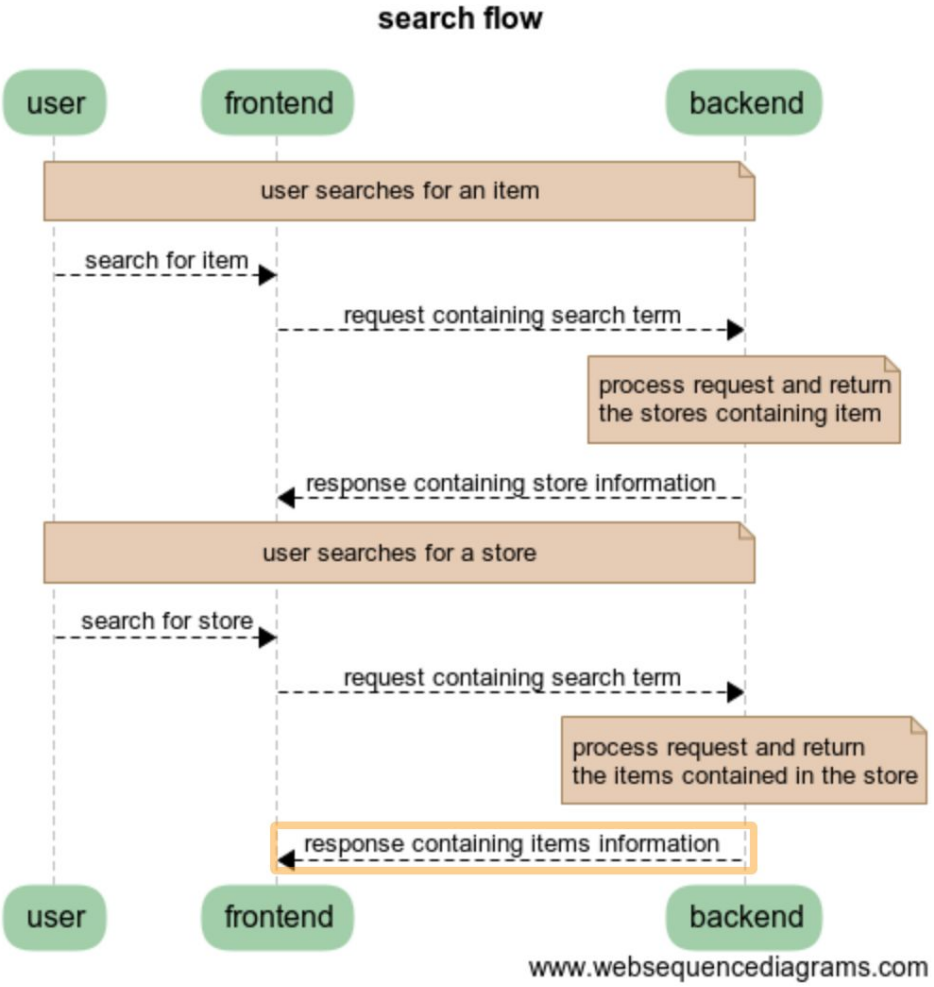
Solution: we propose a micro service architecture with 3 distinct services: text extraction service, backend service to talk to the database and a front end to take user inputs

Database schema



Flow diagram





Text extraction service

This will be a simple service created using flask and we'll expose REST APIs which will consume the image and output the text in the image in the following format:

```
{
  "store": "<storename>",
  “Attributes”: [
        "address": "<address>",
        "GST": "<gst>"
   ]
  "items": [
   {
     "name": "<item 1 name>",
     "price": "<price>",
     "quantity": "<quantity>"
   }
  ]
}
```

The approach to extract sentences/words from the image are as follows:

- Sharpen the image if it can happen
- Then check if the image is too blurry (80% threshold)
- If the image is too blurry, there is no point processing it so throw an error
- If the image is not blurry, get the text from the image
- Once the text is extracted, try to do an auto complete or auto correct (use google API or a dictionary of words)
- Problem: how do you determine what is the store name and what is the product name?
- Extract the text and format it accordingly