



# COBRA

Cold, Brah

## FOOD & ENERGY WASTAGE

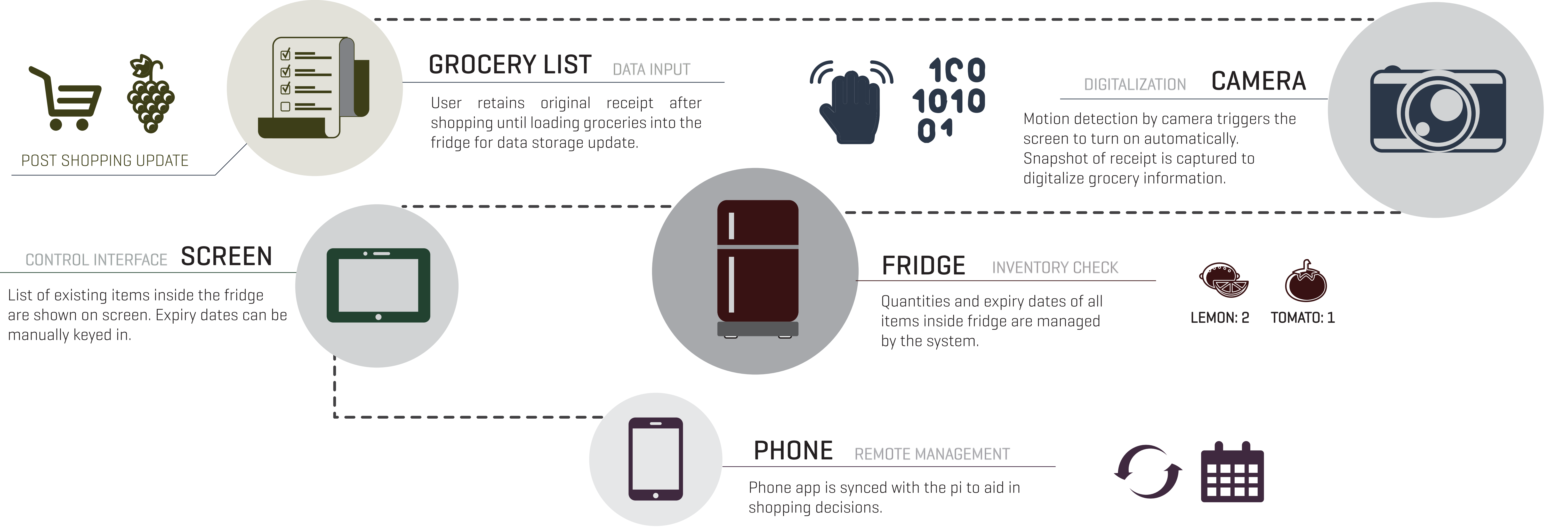


According to a 2010 NTU research, 6 in 10 people purchase more than what they need when shopping for groceries

120 kWh

The poor habit of subconsciously checking inside the fridge wastes 10% of total energy usage by the fridge

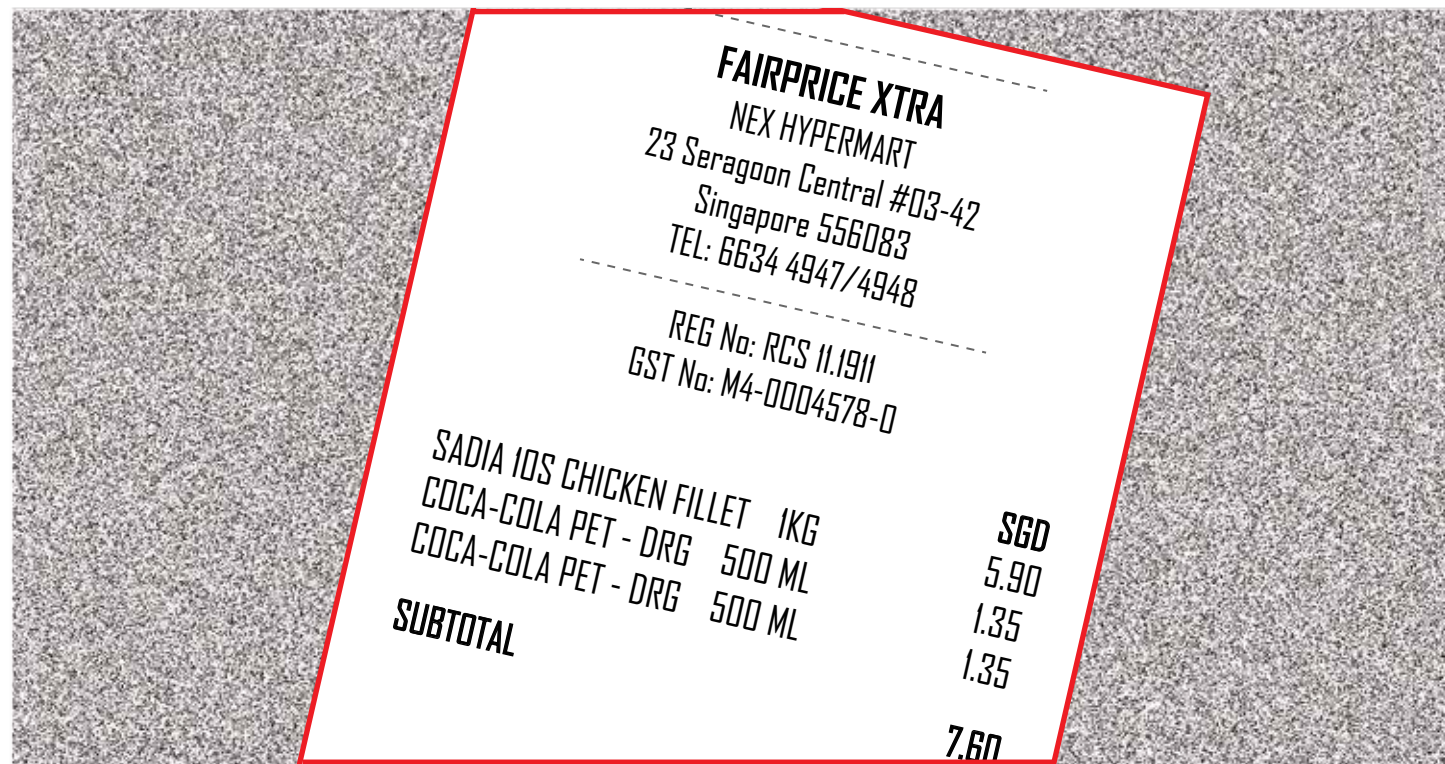
## SMART FRIDGE



## SCANNING OF RECEIPTS



CONTOUR DETECTION  
GREYSCALE THRESHOLDING



Contour detection detects the receipt  
Greyscale thresholding makes the words easier for the tessarct engine to read



TESSERACT ENGINE

Converts the items on a scan of the receipt into text



## FUZZY SEARCHING WITH LEVENSTEIN DISTANCE

Fuzzy searching is done word by word and uses the Levenshtein Distance Algorithm to calculate a score from 0 to 100

Words with a score > 75 are chosen and then firebase is updated with +1

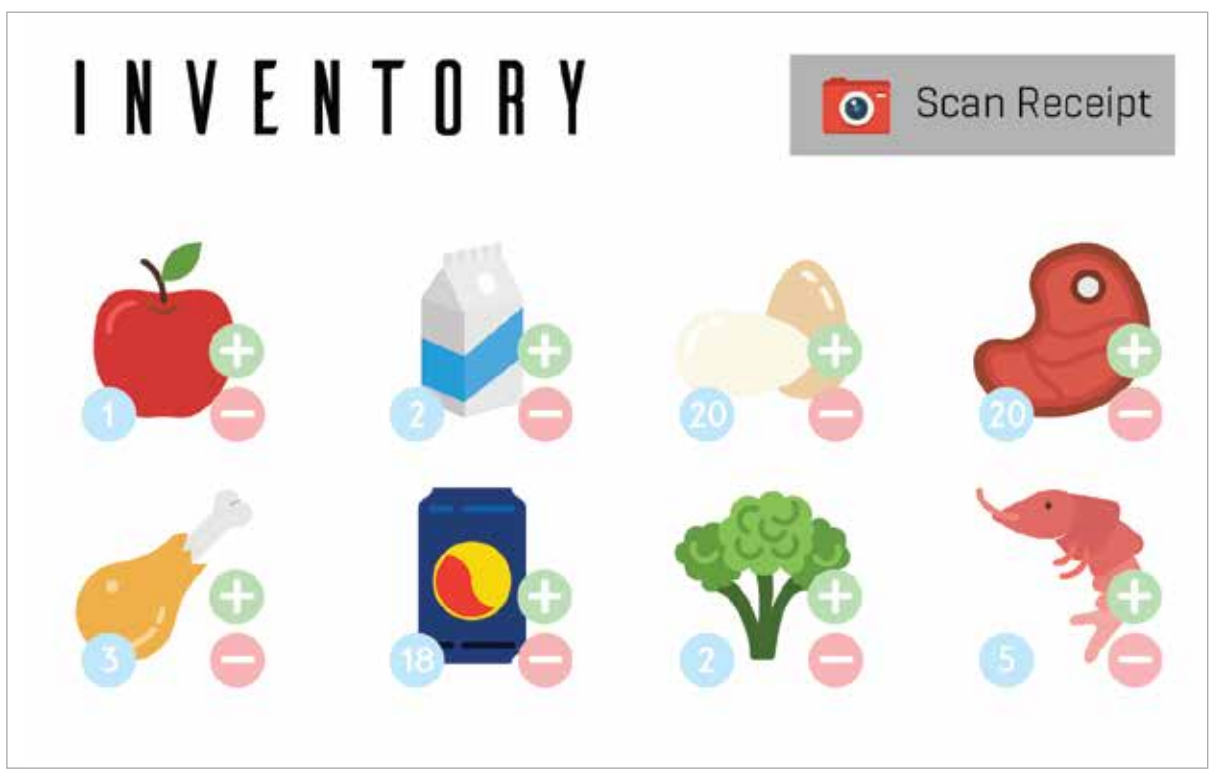
## INVENTORY



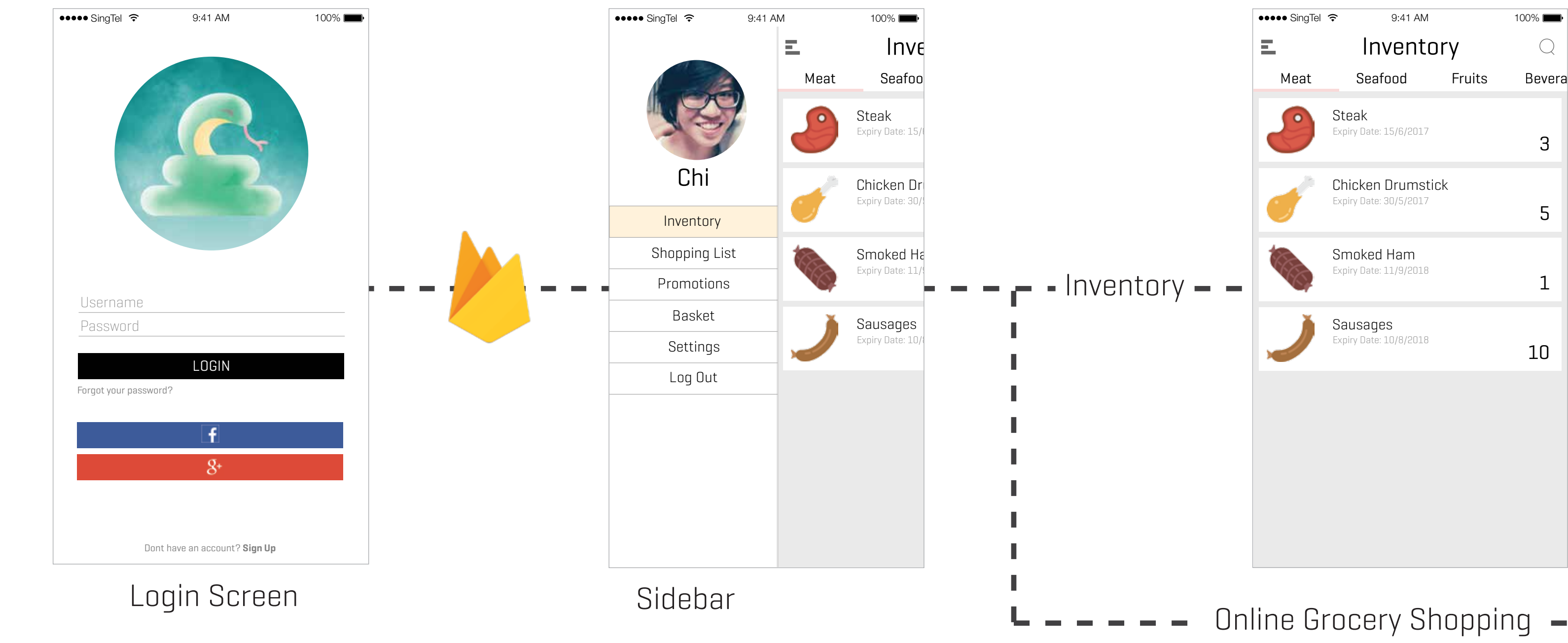
KIVY

Gets the inventory from Firebase and displays it using an array of icons

Screen to scan grocery receipts to add purchases into the inventory



## MOBILE APPLICATION FUTURE PLANS



The fridge inventory is uploaded onto Firebase and the phone app pulls this inventory to provide real time updated inventory

The app also offers online grocery shopping for customers from supermarkets in Singapore

