

TABS Design Review

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Project Description

- App Overview (mobile app):
 - digitize paper receipts
 - allocate expenses among individuals
 - seamless payments.
- Optical Character Recognition (OCR) Technology:
- Enables users to assign each item on a receipt to different individuals
- Partial & Shared Expense Feature:
 - Multiple users to split the cost of shared items



Project Goals

- Fast and easy to use, new user friendly
- Easily drag and drop items/users
- Split in real time / calculates user totals
- Send out messages from the app to users depending on the split output
- Save user data and history in firebase
- Create profiles/groups
- **Stretch Goals**, refine OCR, error checking, improve on UI, add more features like integrating payments.



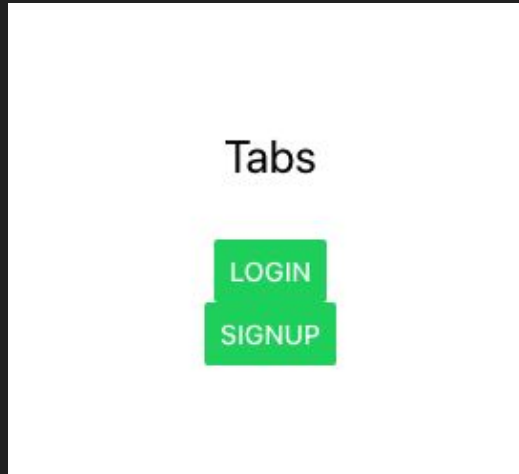
Project Justification

- As college students we are used to splitting grocery and food bills, and need a quick and easy app that can calculate and communicate these amounts
- More reliable than word of mouth, especially when considering weighted splitting of tax/tip
- Can be used by anyone that has to split purchases including non-food items like household items in a shared apt/house
- No need to manually divide tip, tax, etc.



*Screenshots from iphone- totals have to be manually inputted at the moment

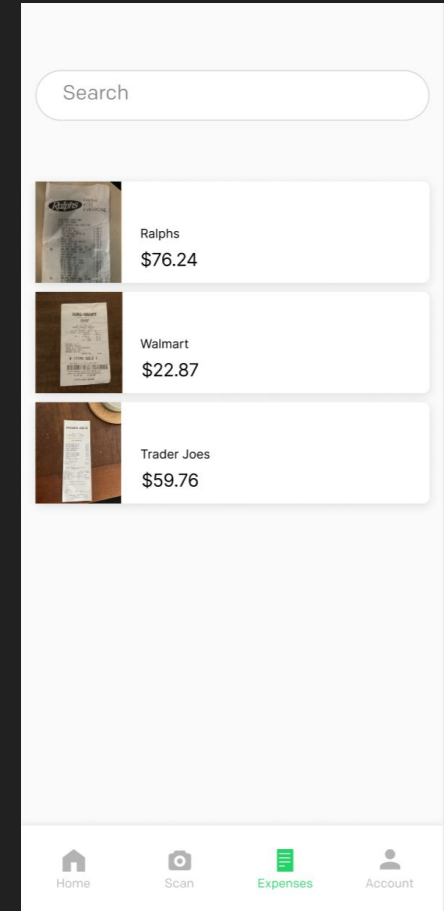
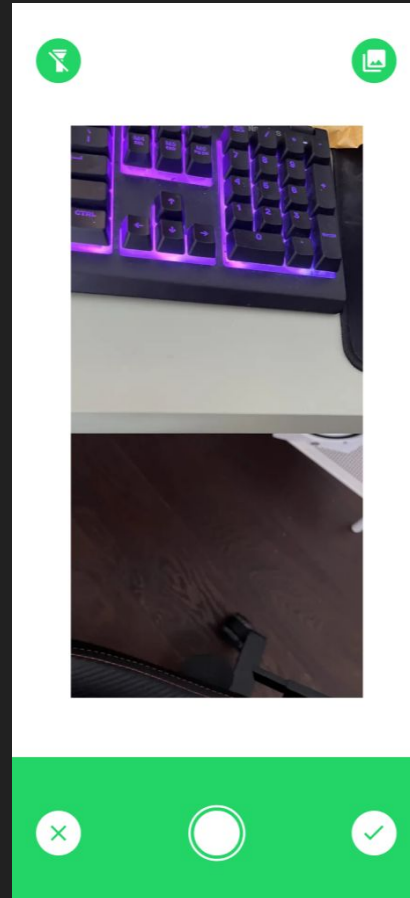
UI Screenshots



Sign Up

Email

Password



Demo (build broken 🙄)

- Our build is currently broken so we can't show you the drag and drop.
- Merge issues ...

Will explain a lot of issues with parsing as you see here:

```
},
{
  "itemName": "CHEESE SHOP\\nJSPH ORG HUMMUS",
  "price": 5.99
},
{
  "itemName": "F\\nFROZEN FOOD\\nSB SW BLEND",
  "price": 102
},
{
  "itemName": "AMYS SOUP LS LEN BORE\\nSOUP LENTIL SHS E\\nSOUP LENTIL",
  "price": 3.19
},
{
  "itemName": "F\\nAMYS LS CHNKY TO",
  "price": 3.99
},
{
  "itemName": "F\\nAMYS LS CHNKY TO",
  "price": 3.99
},
{
  "itemName": "F\\nPRODUCE\\nDOLE SPINACH",
  "price": 10
},
{
  "itemName": "F\\nTAX",
  "price": 0
},
{
  "itemName": "BALANCE",
  "price": 35.01
}
```

Project Challenges

- Difficulty parsing receipts that are slightly crinkled, or even plain receipts
- Google's Tesseract giving us a lot of issues, not as powerful as we thought
- Have gone through almost 10+ different scripts and strategies on how to parse



```
// EXTRACTED TEXT = RECEIPT
give us feedback @ survey .walmart.com
Thank you! ID #:70D2B31HZRS
No
Walma rt 7
702-639-1202 Mgr: SHIREEN
5940 LOSEE RD
NORTH LAS VEGAS NV 9081
ST# 04339 OP# 009046 TE# 45 TRH 08549
VINYL GLOVES 019339700848 11.72 X
AJAX DISHLIM 003500049863 2.96 X
ADVIL DUAL18 030573014718! 3.98 X
MCC/SCH PARS 005210000738 F 2. £1 !
VINYL GLOVES 01539 ror 265
.54
TAX 1 8-3rn 35136
visa TEND 35.36
```




```
{
  "itemName": "SHIREEN",
  "price": 5940
},
{
  "itemName": "LOSEE RD\nNORTH LAS VEGAS NV",
  "price": 9081
},
{
  "itemName": "VINYL GLOVES",
  "price": 19339700848
},
{
  "itemName": "X\nAJAX DISHLIM",
  "price": 3500049863
},
{
  "itemName": "SCH PARS",
  "price": 5210000738
},
{
  "itemName": "VINYL GLOVES",
  "price": 1539
}
}
```

Status Update

- Working on live updating UI for drag and drop, this has been the longest development process, but we are almost done
- We are lane switching to just using plain text input or a flat receipt photo for parsing as real-life receipts are too problematic at the moment. Ex. wrinkled receipt —>

[← Receipt Details](#)



Vendor

Date

Currency

Total

USD

▼

Category

Meal & Entertainment

▼

Items

[Delete Receipt](#)

Punch List: To-Do's



- Resolve Build Issues
 - Continue working on drag and drop feature
- UI work
 - Make it looks prettier and easier to use!
- Send out messages from the app to users depending on the split output

Optional:

- Store Receipt History
- Payment Integration

Thank You!