Project Proposal

# Part 1

Our app is a budgeting app that, in addition to providing a way to keep track of one’s finances, allows people to take pictures of receipts and keep them in their phones, allowing people an easy, convenient and real-time way to manage their money.

(WENDY): Formatting the entire thing, general introduction

1. **A general description of the problem your group wants to tackle**

(RICHARD) The problem that our group wants to tackle is the issue of keeping track of receipts in light of the inefficient way they are dispensed upon a purchase. Budgeting one’s money is important to lots of people and receipts are counterproductive to this because they are small, flimsy pieces of paper that are easily ripped up and hard to keep track of. These are two unpleasant characteristics that people do not want important financial transactions to have. Receipts are also annoying to add to a budget report as they need to be manually copied into it, and if neglected, they can gradually accumulate in a corner or on a desk. Given the presence of modern technology capable of extracting pictures from text, it would be much more efficient to automate the process of recording receipts and transactions, perhaps by a few clicks of a mobile phone.

1. **An overview of the users and user needs for your design problem**

(RICHARD) Users of this app most likely will often purchase things in public and want to keep track of their purchases to see if they are going over a self-assigned budget. This app allows a user to set a budget (whether it be monthly, weekly or annually), carry over budgets surpluses or deficits from previous months/weeks/years, and increase or decrease the month’s budget if needed. In addition to this, however, upon making such purchases in public and receiving a receipt, a user should be able to take a picture of the receipt so that the receipt is now stored in a medium that is harder to destroy, easy to keep track of, possibly password-protected, and already accounted for in a user’s budget, which also happens to be stored in his/her phone. Users will also be able to classify their purchases under different categories, such as Food, Clothing, Appliances, Spa/Gym, etc. to organize their purchases in a meaningful manner.

1. **The situations in which the users have the problem / needs**

(BENSON) The need for this app arises in everyday transactions. For example, a mother goes grocery shopping at several stores with her child. She wants to keep track of the plethora of receipts she's about to receive before they pile up, all while keeping an eye on the child. This app would provide a swift method of recording and organizing the receipts while also doing the arithmetic required at the end of the day. Another example is when a group has finished dining at a restaurant. Normally, the receipt wouldn't be taken at all, resulting in the amount spent forgotten. In any transaction, from renting a bike to visit Disneyland to buying Oreo cookies and milk at 3 o’clock in the morning, it saves the user the tedious task of going through a stack of receipts and manually categorizing and summing them together.

1. **Usability goals relevant to your design problem with justification**

(WENDY) Our goals for usability are for our app to be efficient to use and to have good utility. Our app must be efficient to use because we want the user to be able to enter and retrieve their data quickly and easily. We envision the user of this app to be ‘on the go’ and they do not want to spend a lot of time using our app. Our app should have good utility because a user may want to do many things with a budget app, such as setting a budget, entering transactions, and displaying an overview of their spending for a given time period. All these uses will be addressed and within each there will be flexibility so that the user can view the information in a way that suits them.

1. **User experience goals relevant to your design problem with justification**

(BENSON) The primary barrier in apps with similar functionality is in how the user feels when using it regularly. It can easily become tedious, keying in numbers and sorting out categories, producing a repulsive user experience, even frustrating when in a hurry. However, much of the chore can be bypassed by automatically scanning the receipts. Sorting them can also be streamlined to a few taps on the screen. Once the tedium has been taken out, what's left are a tidy and organized list of expenditures as well as simple and clear graphs to view progress, indicating when and where to spend or save. This alone should be thoroughly rewarding and provide motivation for the user to continue using the app and ease the burden of daily life.

# Part 2

(YAN) Existing apps…

* do not allow quick and automated ways of recording transactions by leveraging known data and computer vision advancements
  + Numbers, Spendee, mint
* has a static Day, Week, Month summary views instead of supporting dynamic overviews for user changeable timespans
  + Spendee, mint
* robust budgeting apps requires account # and passwords of bank account they manage
  + mint
* has a lot of nested menu structures that offers robust options, at the expense of ease of use and UI cleanliness
  + numbers, you need a budget, student budget

(MICHAEL) Psychological background

Random Comments

* Allocating a budget. User can decide if it’s monthly, yearly, weekly, etc.
* Modifying the budget, increase it or decrease it.
* The ability to go under (and it gets reflected in future).
* Allow budget to accumulate, allow different budgets
* New feature: taking pictures or receipts and scanning them.
* Selling points: automate things as much as possible, look at overviews easier, and improve the overview UI.
* Instead of different views, have one view, that gets more detailed as you zoom in.
* Gamify? Game center on app store?
  + The price is right? Make sure you budget exactly at a certain amount?
  + Reward: inputting information?
  + Maybe a non-social game? Not multiplayer?
* Notifications about the budget? Choose who to notify if you go over the limit?
* Literature review: anything related to your project: conference papers, websites, Google scholar.