# Android Final Project

# App Idea 2:

This is an app designed to help families to manage their budgets in which one family member can create categories for expenses and set limits for certain categories and personal use. The high-level requirements are as follows:

1. Anyone shall be able to create a group and give a name to their group. The system shall automatically generate a unique secret token for every group. The person who creates the group becomes the group admin.
2. Anyone shall be able to join a group using the secret token. The admin shall be able to see the members of the group and remove them from the group.
3. Every user shall have some profile info and a profile picture.
4. The admin shall be able to create different categories for group expenses and all members of the group shall be able to see and navigate between these categories. Users shall be able to see the spending in each category based on monthly cycles or a selected time period including the information about who made that transaction.
5. The admin shall be able to set limits for each category and for each user’s personal use (you may consider each user as a separate category as well)
6. Every user shall be able to upload a new spending for each category including a picture that represents the receipt for that spending. This process shall be denied if the limit is exceeded for that category for that month or time interval.
7. The users shall be able to search in every category using different search criteria and this shall render a list of search results including the image for each entry if available.

## Hardware Requirements

* Nexus 5 API 22 phone
* Nexus 9 API 22 tablet
* Android emulator

# Roles

## Role Types

* Users
  + User create a User Profile
* Admins

## Groups

* Group of Users
* Example: kids, parents, family.
* Use Case:
  + Matt creates a Kids Group.
  + Since Matt created the Kids Group he is the Admin.
    - Is he also part of the group then? I assume so.
  + Matt adds Bob and Jeff to the Kids Group.
  + Bob and Jeff are Users in the Kids Group.
  + Matt creates a Category called Games for the Kids Group.
  + Matt sets the limit for the Games category to $100.
  + Matt sets Bob’s limit for Games to be $20 since he is 3 years old.
  + Matt sets Jeff’s limit for Games to be $80 since he is 5 years old.

# Budget

* Categories
  + Created by Admin
  + Describes an expense type.
  + Example: games, food, movies, subscriptions.
* Categories are part of a Group. This is the hierarchy / examples.
  + Group Kids (Bob [user], Jeff [user], Matt [admin])
    - Category Games
    - Category Candy
  + Group Family (Bob [user], Jeff [user], Matt [user], Sally [admin])
    - Category Food
    - Category Vacation
    - Category Fun Stuff
  + Group Scouts (Jeff [user], Matt [admin])
    - Supplies
    - Activities
* Expenses are uploaded to the server.
  + A receipt image can be included.

# Data Analysis

* Users can view expenses per category over whatever date ranges. Month or time period.