CMPS 115 – Software Methodology
Heading

Document Name: Release Plan
Product Name: Trash or Not?
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Release Name: TON
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High level goals

- Use image recognition to analyze the item of trash to determine whether it belongs Compost, Recycling, or Garbage.
- Create a database of items that could belong in Compost, Recycling, or Garbage respectively.
- Take the user's image and compare it to the items within the database.
- Let the user know which bin to throw their trash in.
- Be able to take multiple pictures of an item.
- If we have time, we wanted to implement Amazon's Alexa to have the user ask, and receive a voice response from Alexa
- Users will be allowed to find out the information

User Stories for release

Sprint 1 : (3 weeks : Oct 8th - Oct 22nd)

User Story 1: Research requirements of items that can be placed in Recycling, Compost, or Trash. In addition, find examples of items that could be put in the respective bins. Research types of databases that we can utilize. (3 days)

User Story 2: Take pictures of sample items from the list. This information will be put into a database and be matched to the user's image using an image recognition API. Figuring out the best suitable image recognition API to use, and how to implement it. (1 week)

User Story 3: Create a layout of the mobile application, and list out which features will go where (UI outline). (1 week)

Sprint 2 : (3 weeks : Oct 29th - Nov 12nd)

User Story 1: Figure out how to implement the image recognition API into the application. Test with certain objects and see if the user's picture matches with the appropriate one in the database. (1 week)

User Story 2: Start building the initial application features in xCode and Swift. (1 week)

1. Implement the feature that asks whether or not the user wants to allow Camera Access. This will require our code to go into the user's settings in their phone, and allow permission for the app to use the camera feature.
2. The camera will then take a picture of the item that needs to be disposed. The image recognition API will be used to tell the us what the item is. It will then search the item in the database as per our tests from user story 1 and check for the match.

User Story 3: Figure out how to show the resulting bin, whether it be a google image (1 week)

Sprint 3: (3 weeks : Nov 19th - Dec 3nd)

User Story 1: Here we will use the user's item and check with our database to see which exact bin it belongs to. The user will be prompted with an answer of "Recycling", "Compost". Or "Garbage".

User Story 2: Work on UI - adding animations and making app as user friendly a possible

User Story 3: Implement plain search feature so that users also have the option to search up their item and the according bin will appear

Product backlog:

If we have some remaining time, we would like to implement an Amazon's Alexa skill so that users can simply ask Alexa instead of having to take a picture or search up in our app.