System and Unit Test Template
CMPS 115 – Software Methodology

Product: Trash Or Not?
Team Name: RADS
Due: 12/2/2018

Sprint 1

- **User Stories Sprint 1 : (2 weeks : Oct 8 - Oct 21)**
    - <u>User Story 1</u>: As an environmentalist, I want to 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) - High level
    - <u>User Story 2</u>: As an environmental studies major, I want to make sure our database is accurate. These items will be put into the database in the form of words and the word of item will 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)
    - <u>User Story 3</u>: As a user, I want a user-friendly layout. Create a layout of the mobile application, and list out which features will go where (UI outline). (1 week)

- **Scenario Sprint 1:**
    - When you take a picture of an item, the image is processed through the CloudSight API.
    - When you open the app, you are greeted with either the launching screen (logo) or the main screen which depends on whether or not it is loaded. On the main screen, you will see a "Get Started" button. Once you click the button, you get to the next page where you can click on the "Take a Picture" button. This button will launch the camera feature. If this is the first time you are launching the app, you will have to give the app access to your camera. Once you take a picture of the item, you will be greeted with a page that consists of the picture that you just took, the name of the item, and whether or not the item belongs in Recycling, Compost, Garbage, or Unknown.

Sprint 2

- **User Stories Sprint 2 : (2 weeks : Oct 22 - Nov 4)**
    - <u>User Story 1</u>: As a developer, 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 word in the database. (1 week)
- ○ <u>User Story 2</u>: As a developer, start building the initial application features in xCode and Swift. (1 week)
  - ■ Allow Camera Access
  - ■ Search for the image recognized by the API in the database
- ○ <u>User Story 3</u>: UI, Figure out how to show the resulting bin, whether it be a
- ○ google image (1 week)

- **Scenario Sprint 2:**
  - ○ When you take a picture of an item, the image is processed through the CloudSight API.
  - ○ When you first launch the application, you are greeted with the message asking to allow Camera Access.
  - ○ 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.

Sprint 3

- **User Stories Sprint 3: (2 weeks : Nov 5 - Nov 18)**
  - ○ <u>User Story 1</u>: As an environmental studies major, I want to ensure that we are providing correct information. Check the item with our database to see which exact bin it belongs to. I will be prompted with an answer of "Recycling", "Compost", or "Garbage". (3 days)
  - ○ <u>User Story 2</u>: As a User I want a nice UI with animations so that using the app is aesthetic (1 week)
  - ○ <u>User Story 3</u>: As a developer, I want to implement a simple search feature so that users also have the option to search up their item and the according bin will appear (1 week)

- **Scenario Sprint 3:**
  - ○ Once the image is processed through the API, the resulting output "Recycling", "Compost", or "Garbage" will be outputted onto the page that contains the image of the item you just took a picture of.
  - ○ When you launch the app, you are greeted with a loading page animation.

Sprint 4

- **User Stories Sprint 4: (2 weeks : Nov 19 - Dec 2)**
  - User Story 1: As a User, I want everything to run smoothly without any bugs (10 days)
  - User Story 2: As a Developer, I want to integrate Amazon Alexa into asking the user what item. (5 days)
  - User Story 3: As a Developer, I want to strive to complete product backlog. (5 days)

- **Scenario Sprint 4:**
  - As part of the previous Sprints, the "Garbage" output was not being outputted and that was a really big bug. That has now been fixed, and so when you take a picture of the item that belongs in the garbage bin, it will output "Garbage" appropriately.