Unit Test Report

Darian Firestine
Modules: Web Scraper and UI design
Product: Digital Cookbook, Team: "Too many cooks", November 25ᵗʰ 2019

Module Web Scraper:

Function scrapeURL:

Accepts a url returns a recipe object if url is valid.

Equivalence Class	Description	Example Values
ECV	Valid url	https://www.allrecipes.com/recipe/14140/baked-macaroni-and-cheese/, etc.
ECIV	Invalid url	123, google.com, asdf, etc.
ECVF	Valid url, but search does not find steps/ingredients	https://www.allrecipes.com/recipe/22180/waffles-i/, etc.

Equivalence Class	Input	Expected Output
ECV	https://www.allrecipes.com/recipe/14140/baked-macaroni-and-cheese/	Returns Recipe object with recipe information
ECIV	123	Error with url: 123
ECVF	https://www.allrecipes.com/recipe/22180/waffles-i/	Error with url: https://www.allrecipes.com/recipe/22180/waffles-i/ scrapeURL error

Function scrapeCategoryName:

Accepts a url returns the category name if found.

Equivalence Class	Description	Example Values
ECV	Valid url	https://www.allrecipes.com/recipes/17561/lunch/, etc.
ECIV	Invalid url	Abc, 437889, bing.com, etc
ECVF	Valid url, but search does not find name	https://www.allrecipes.com/recipe/22180/waffles-i/, etc.

Equivalence Class	Input	Expected Output
ECV	https://www.allrecipes.com/recipes/17561/lunch/	Returns category name Lunch
ECIV	123	Error, returns "Unknown Category" + count of unknown categories
ECVF	https://www.allrecipes.com/recipe/22180/waffles-i/	Error, returns "Unknown Category" + count of unknown categories

Function scrapeCategories:

Accepts a url returns a list of recipe objects if url is valid.

Equivalence Class	Description	Example Values
ECV	Valid url	https://www.allrecipes.com/recipes/17561/lunch/, etc.
ECIV	Invalid url	123, google.com, asdf, etc.
ECVF	Valid url, but search does recipe urls	https://www.allrecipes.com/recipe/22180/waffles-i/, etc.

Equivalence Class	Input	Expected Output
ECV	https://www.allrecipes.com/recipes/17561/lunch/, 25	Returns a list of recipe objects of length 25
ECIV	123, 123	Other error: + exception
ECVF	https://www.allrecipes.com/recipe/22180/waffles-i/, 2	Other error: + exception

Testing: No unit tests were written for this module as it is a run once part to gather data. Testing was done by reviewing the console and json file output. This verifies that the correct number of recipes was scraped. If a problem is encountered the functions will skip a recipe and attempt to get another until the required amount is reached. The debugging tool built into the IDE and the developer tools in the chrome browser were used to examine errors and exceptions thrown during runtime and the webpages related to the errors.

Module UI design for recipe and category views:

The UI for the recipe and category views needs to render correctly and efficiently on devices with different display resolutions.

Display Resolution	Example Devices to test on
480p	Nexus One
1080p	Pixel 2
1440p	Pixel 2XL

Testing: Automated UI tests were written with android espresso. The tests verify the existence of UI elements across all the app's pages. The tests simulate user input and navigate the app in order to reach all elements. The tests have issues though, see the prototype document for details. In order to check scaling the app was run on emulators matching the above example devices. Proper scaling and arrangement of UI elements was manually verified on the emulators.