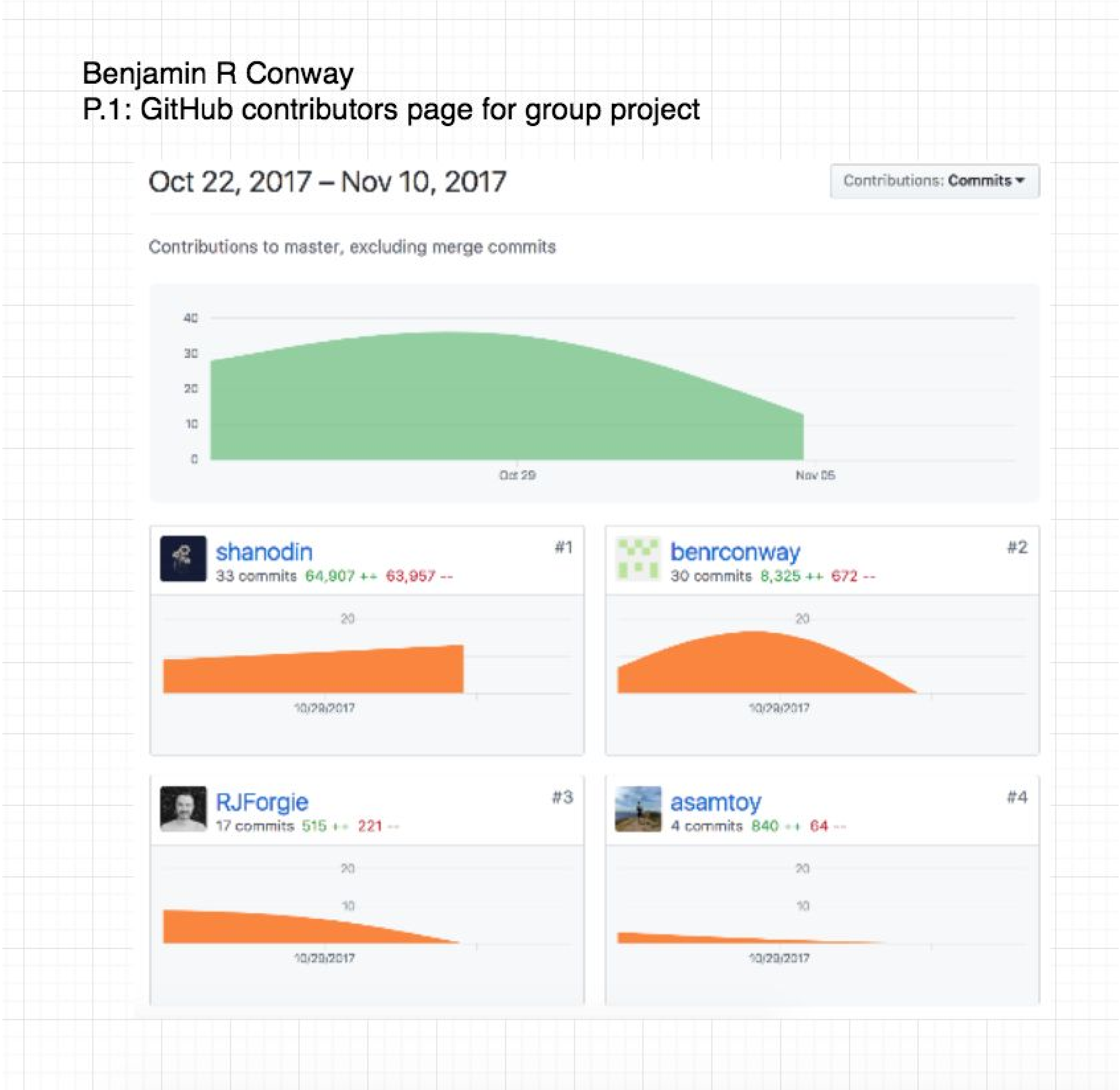
Evidence for Project Unit

Name: Benjamin R Conway
Cohort: E15
Date: 05/10/2017



Benjamin R Conway
P.1: GitHub contributors page for group project

Oct 22, 2017 – Nov 10, 2017

Contributions: **Commits** ▾

Contributions to master, excluding merge commits

shanodin #1
33 commits 64,907 ++ 63,957 --

benrconway #2
30 commits 8,325 ++ 672 --

RJForgie #3
17 commits 515 ++ 221 --

asamtoy #4
4 commits 840 ++ 64 --

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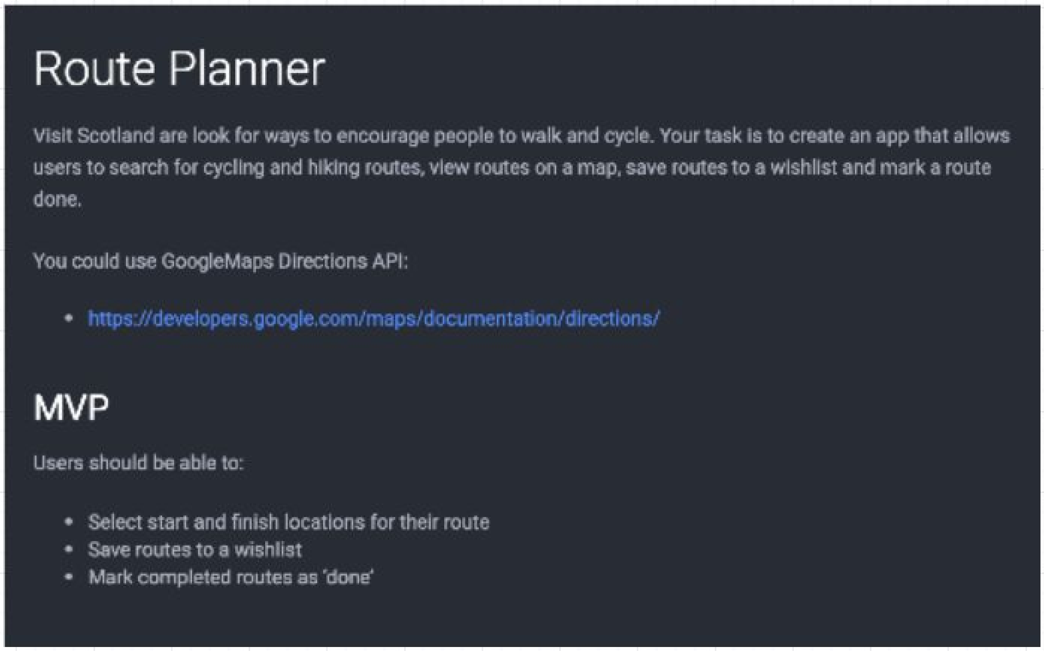
P.2: Project Brief of Group Project



Route Planner

Visit Scotland are look for ways to encourage people to walk and cycle. Your task is to create an app that allows users to search for cycling and hiking routes, view routes on a map, save routes to a wishlist and mark a route done.

You could use GoogleMaps Directions API:

- https://developers.google.com/maps/documentation/directions/

MVP

Users should be able to:

- Select start and finish locations for their route
- Save routes to a wishlist
- Mark completed routes as 'done'

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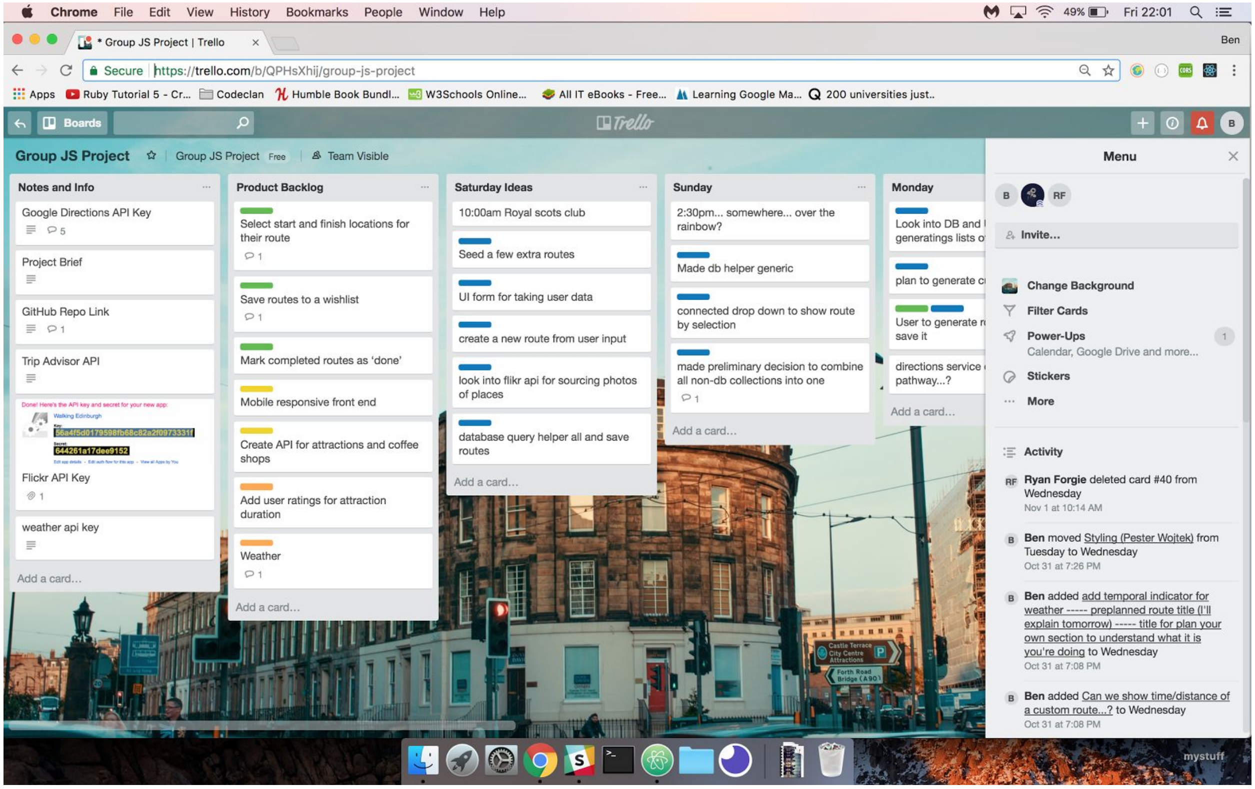
P.3 Group Project Planning


Chrome File Edit View History Bookmarks People Window Help
49% Fri 22:01
* Group JS Project | Trello
Ben
Secure https://trello.com/b/QPHsXhij/group-js-project
Apps Ruby Tutorial 5 - Cr... Codeclan Humble Book Bundl... W3Schools Online... All IT eBooks - Free... Learning Google Ma... 200 universities just..
Boards
Trello
mystuff

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Notes and Info
- Google Directions API Key (5)
- Project Brief
- GitHub Repo Link (1)
- Trip Advisor API
- Done! Here's the API key and secret for your new app:
  Walking Edinburgh
  Key: 56a4f5d0179598fb68c82a2f0973331f
  Secret: 644261a17dee9152
  Edit app details · Edit auth flow for this app · View all Apps by You
  Flickr API Key (1)
- weather api key
- Add a card...

Product Backlog
- Select start and finish locations for their route (1)
- Save routes to a wishlist (1)
- Mark completed routes as 'done'
- Mobile responsive front end
- Create API for attractions and coffee shops
- Add user ratings for attraction duration
- Weather (1)
- Add a card...

Saturday Ideas
- 10:00am Royal scots club
- Seed a few extra routes
- UI form for taking user data
- create a new route from user input
- look into flikr api for sourcing photos of places
- database query helper all and save routes
- Add a card...

Sunday
- 2:30pm... somewhere... over the rainbow?
- Made db helper generic
- connected drop down to show route by selection
- made preliminary decision to combine all non-db collections into one (1)
- Add a card...

Monday
- Look into DB and I generatings lists o
- plan to generate c
- User to generate r save it
- directions service pathway...?
- Add a card...

Menu

B RF

Invite...

- Change Background
- Filter Cards
- Power-Ups 1 Calendar, Google Drive and more...
- Stickers
- More

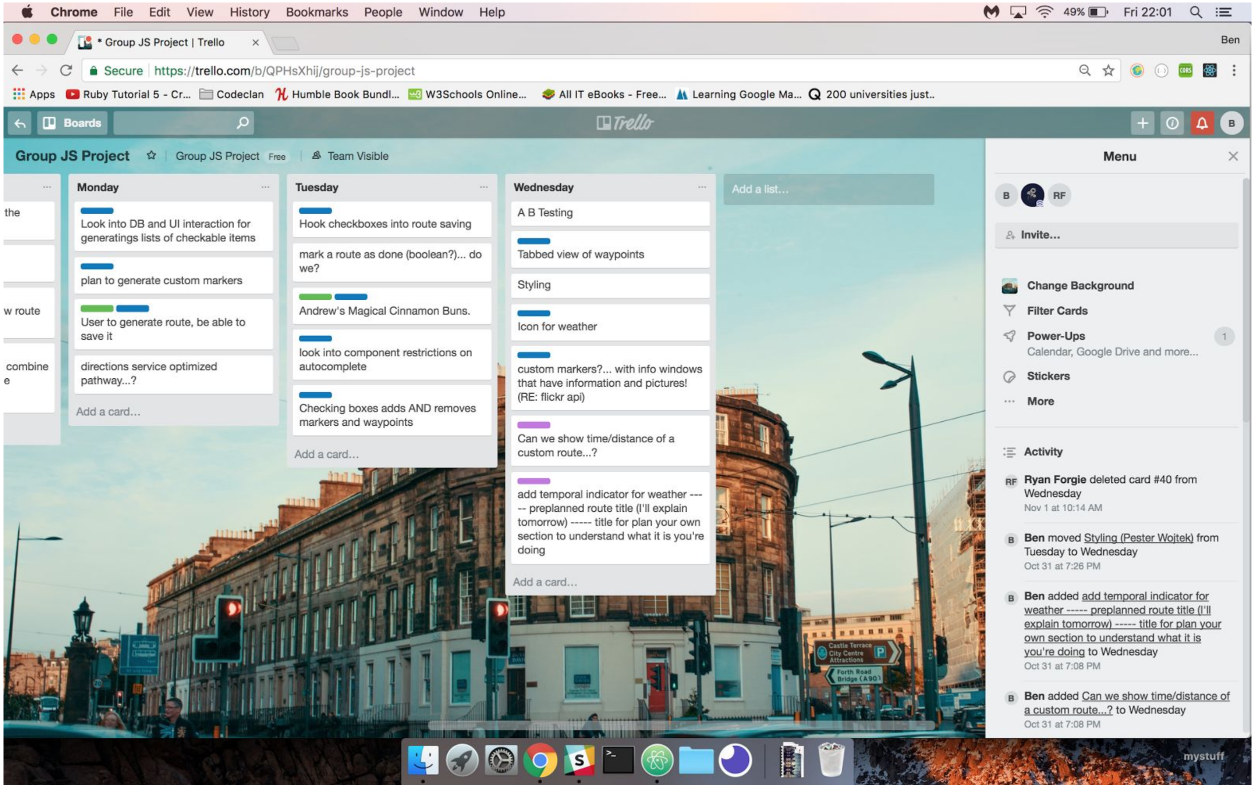
Activity

RF **Ryan Forgie** deleted card #40 from Wednesday
Nov 1 at 10:14 AM

B **Ben** moved Styling (Pester Wojtek) from Tuesday to Wednesday
Oct 31 at 7:26 PM

B **Ben** added add temporal indicator for weather ----- preplanned route title (I'll explain tomorrow) ----- title for plan your own section to understand what it is you're doing to Wednesday
Oct 31 at 7:08 PM

B **Ben** added Can we show time/distance of a custom route...? to Wednesday
Oct 31 at 7:08 PM


Chrome File Edit View History Bookmarks People Window Help
49% Fri 22:01
* Group JS Project | Trello
Ben
Secure https://trello.com/b/QPHsXhij/group-js-project
Apps Ruby Tutorial 5 - Cr... Codeclan Humble Book Bundl... W3Schools Online... All IT eBooks - Free... Learning Google Ma... 200 universities just..
Boards
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the

w route

combine
e

Monday
- Look into DB and UI interaction for generatings lists of checkable items
- plan to generate custom markers
- User to generate route, be able to save it
- directions service optimized pathway...?
- Add a card...

Tuesday
- Hook checkboxes into route saving
- mark a route as done (boolean?)... do we?
- Andrew's Magical Cinnamon Buns.
- look into component restrictions on autocomplete
- Checking boxes adds AND removes markers and waypoints
- Add a card...

Wednesday
- A B Testing
- Tabbed view of waypoints
- Styling
- Icon for weather
- custom markers?... with info windows that have information and pictures! (RE: flickr api)
- Can we show time/distance of a custom route...?
- add temporal indicator for weather ----- preplanned route title (I'll explain tomorrow) ----- title for plan your own section to understand what it is you're doing
- Add a card...

Add a list...

Menu

B RF

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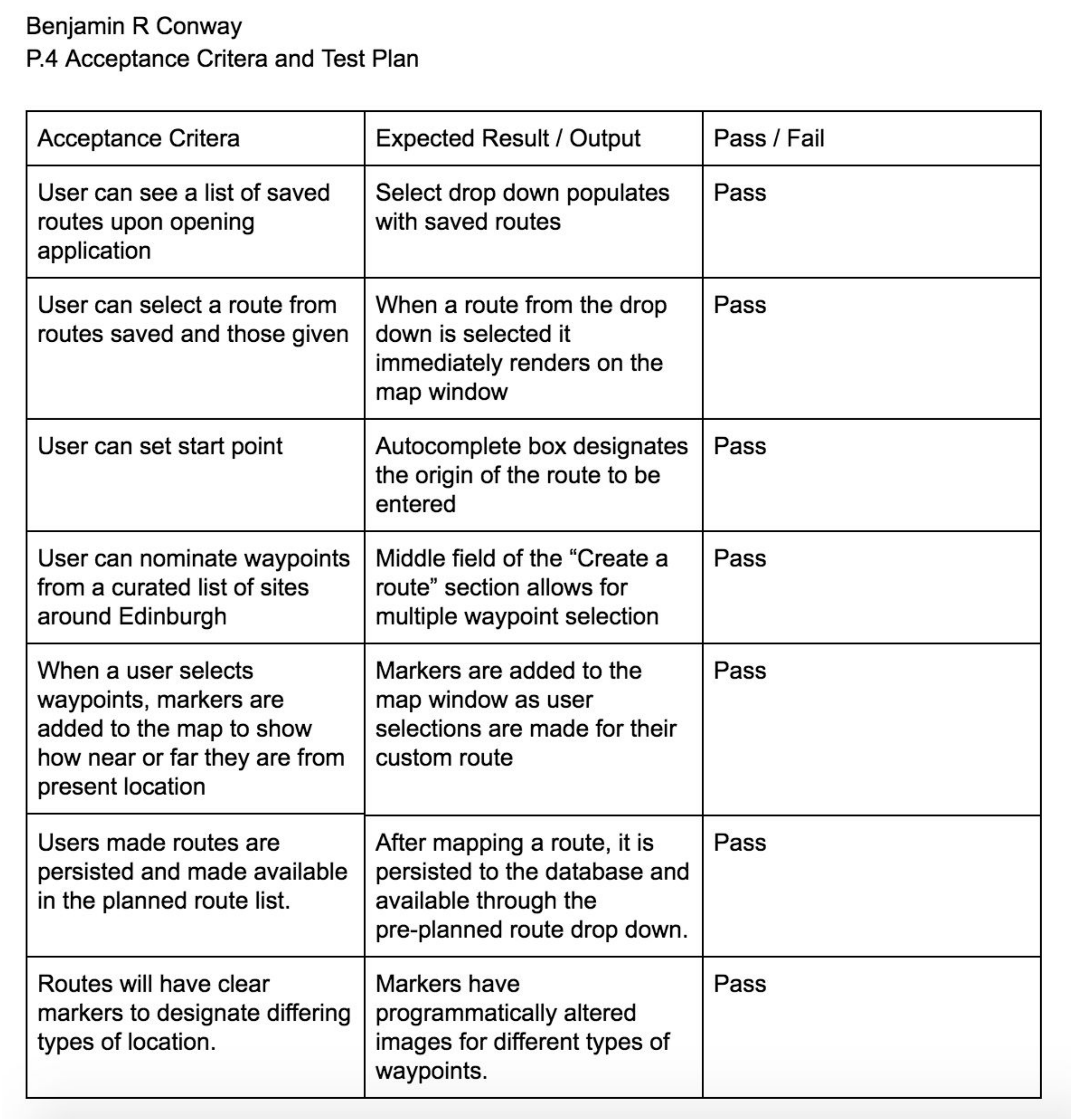

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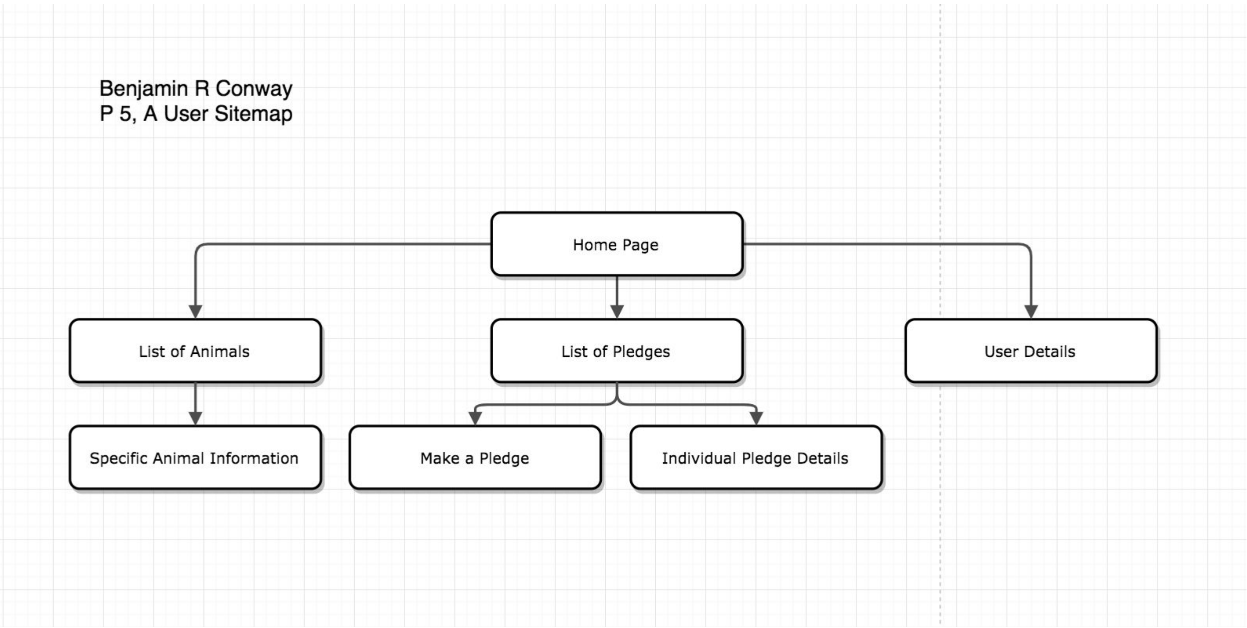
P.4 Acceptance Critera and Test Plan

Acceptance Critera	Expected Result / Output	Pass / Fail
User can see a list of saved routes upon opening application	Select drop down populates with saved routes	Pass
User can select a route from routes saved and those given	When a route from the drop down is selected it immediately renders on the map window	Pass
User can set start point	Autocomplete box designates the origin of the route to be entered	Pass
User can nominate waypoints from a curated list of sites around Edinburgh	Middle field of the “Create a route” section allows for multiple waypoint selection	Pass
When a user selects waypoints, markers are added to the map to show how near or far they are from present location	Markers are added to the map window as user selections are made for their custom route	Pass
Users made routes are persisted and made available in the planned route list.	After mapping a route, it is persisted to the database and available through the pre-planned route drop down.	Pass
Routes will have clear markers to designate differing types of location.	Markers have programmatically altered images for different types of waypoints.	Pass



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P 5, A User Sitemap

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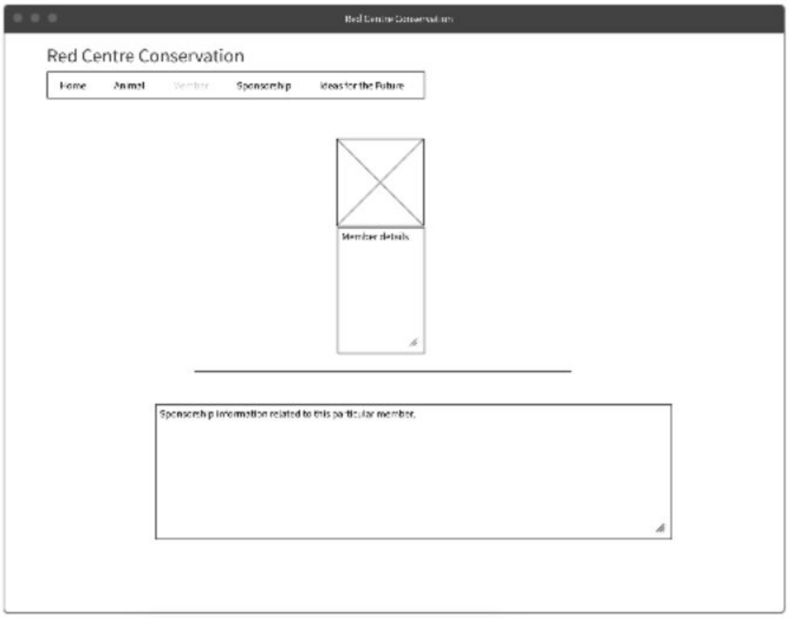
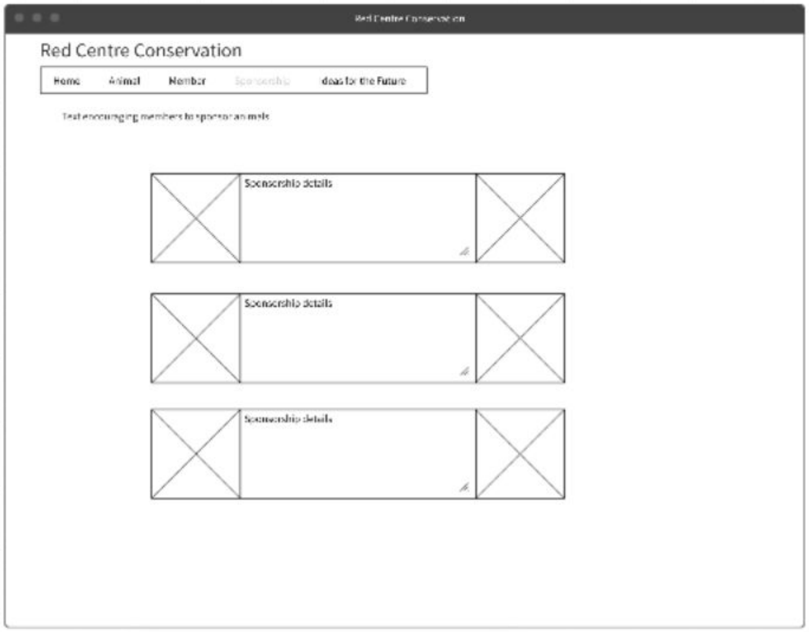
P. 6. Produce two wireframes





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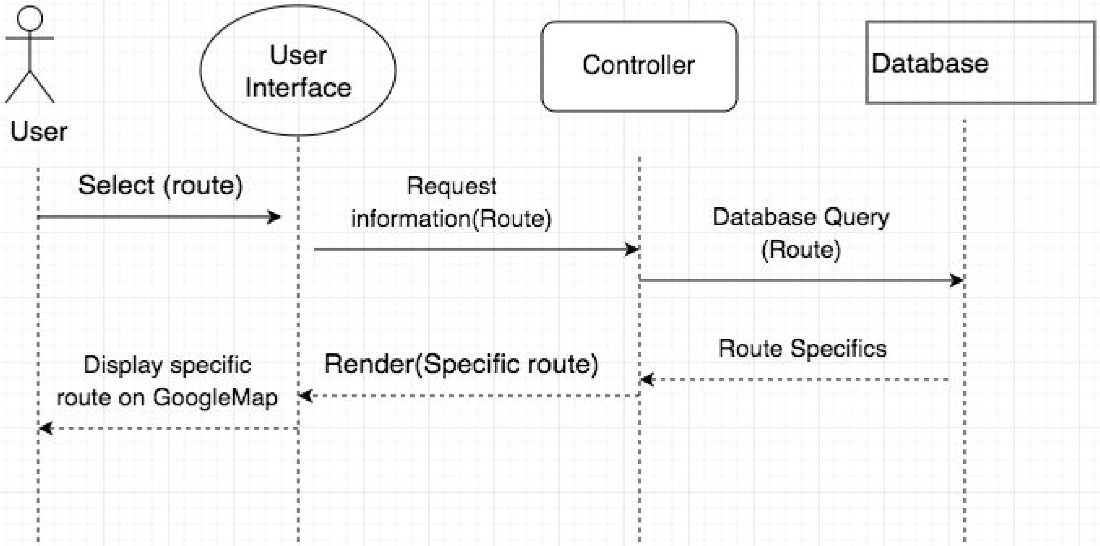
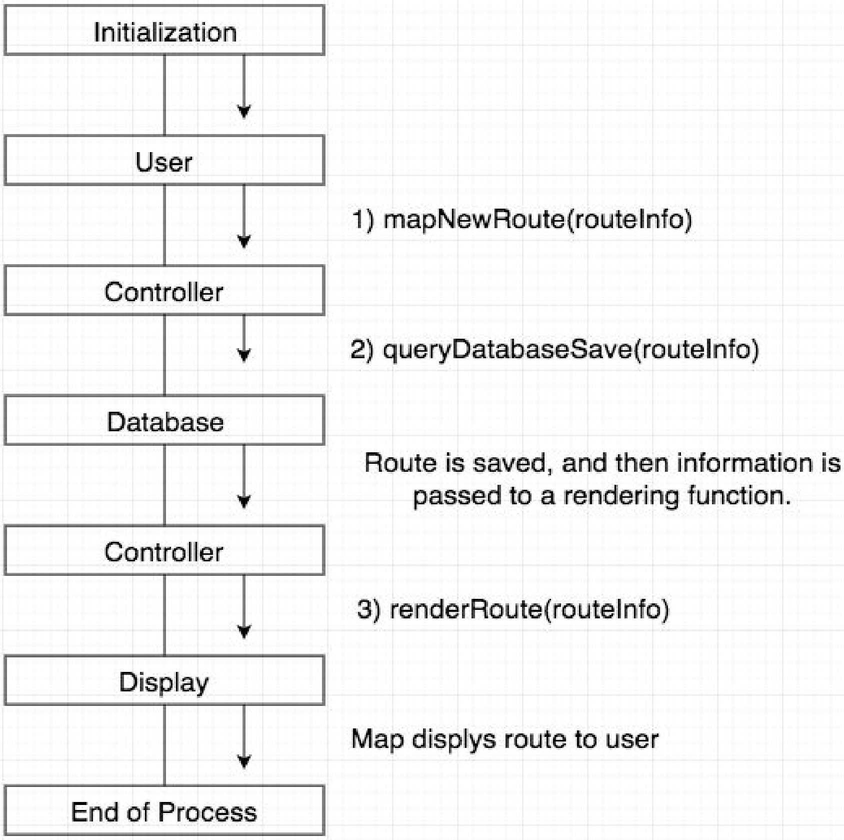
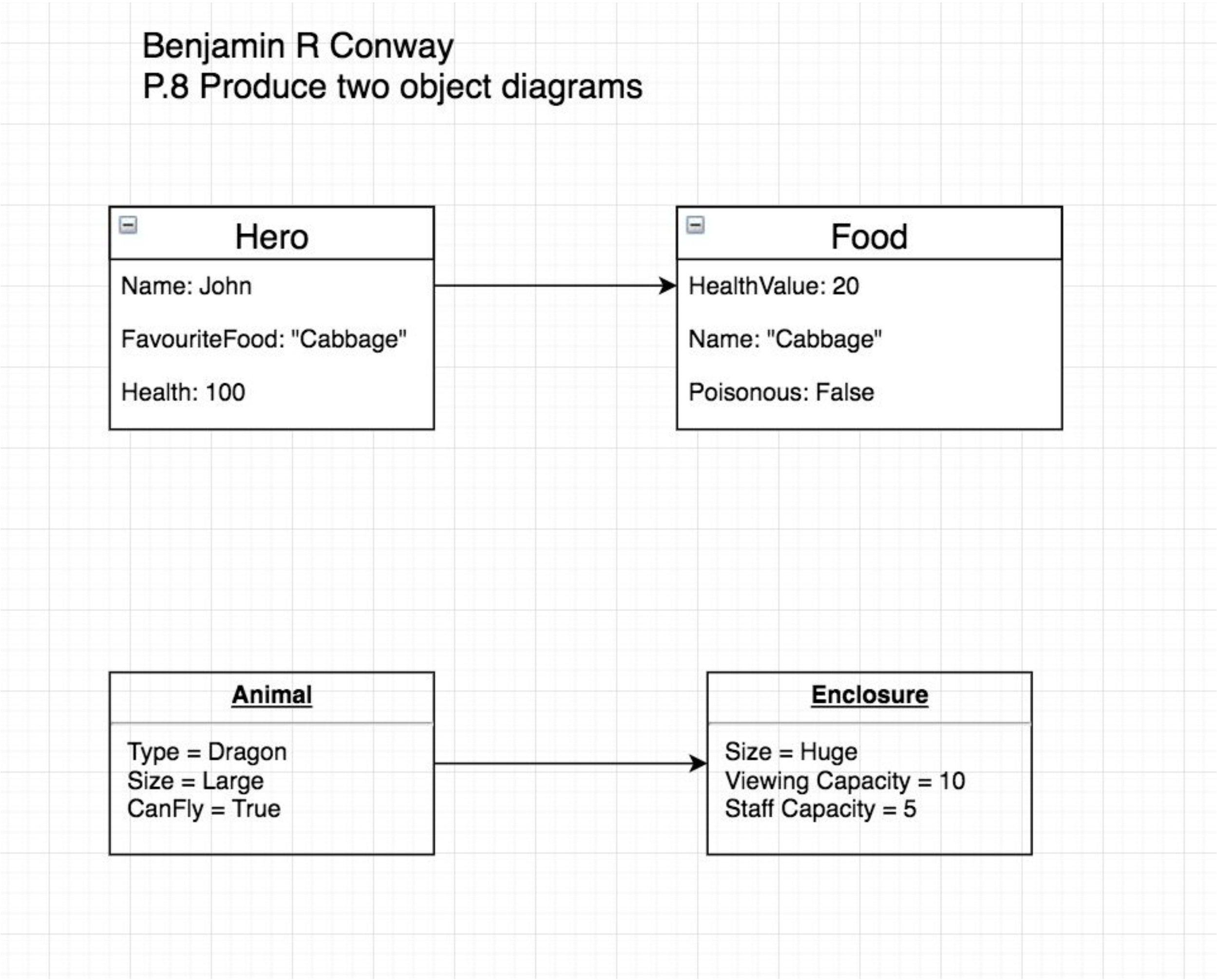
P.7. Produce two system integration diagrams

Sequence diagram of choosing a new route



Collaboration diagram of inputting a new route


Initialization
User
1) mapNewRoute(routeInfo)
Controller
2) queryDatabaseSave(routeInfo)
Database
Route is saved, and then information is passed to a rendering function.
Controller
3) renderRoute(routeInfo)
Display
Map displys route to user
End of Process



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P.8 Produce two object diagrams

Hero

Name: John

FavouriteFood: "Cabbage"

Health: 100

Food

HealthValue: 20

Name: "Cabbage"

Poisonous: False

Animal

Type = Dragon
Size = Large
CanFly = True

Enclosure

Size = Huge
Viewing Capacity = 10
Staff Capacity = 5

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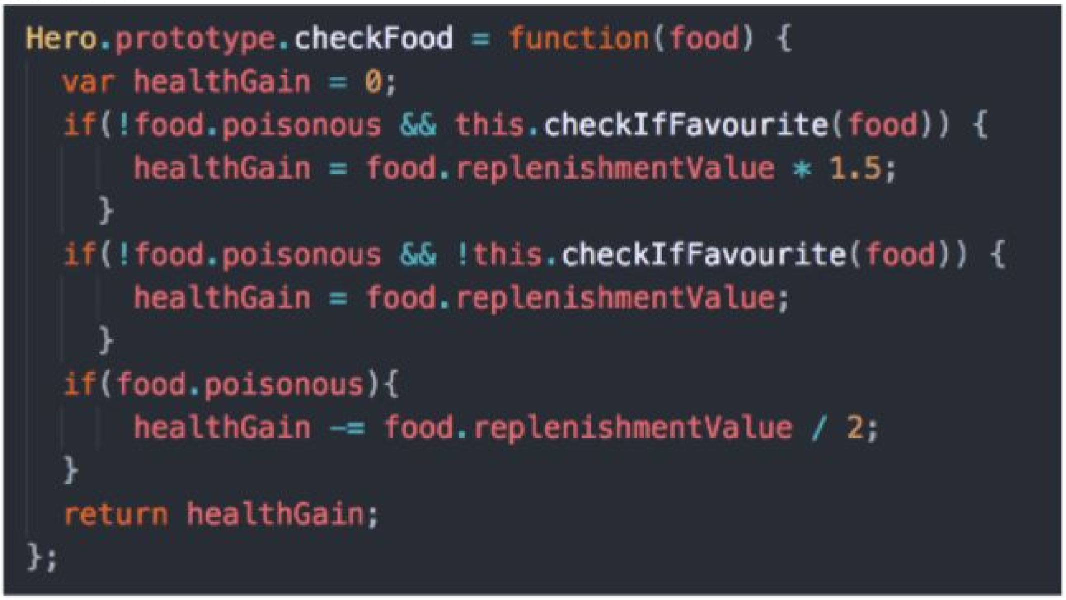
P.9 Two Algorithms I have used.

Algorithm 1:

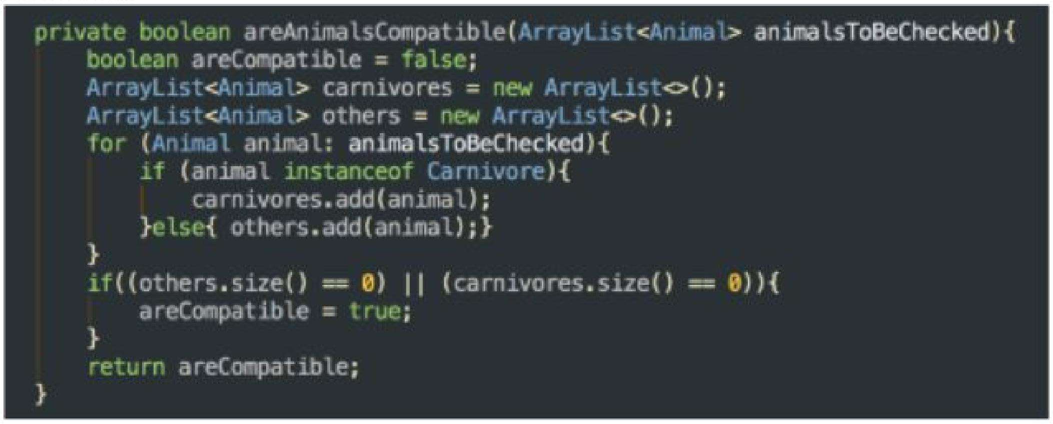


```
Hero.prototype.checkFood = function(food) {
  var healthGain = 0;
  if(!food.poisonous && this.checkIfFavourite(food)) {
      healthGain = food.replenishmentValue * 1.5;
    }
  if(!food.poisonous && !this.checkIfFavourite(food)) {
      healthGain = food.replenishmentValue;
    }
  if(food.poisonous){
      healthGain -= food.replenishmentValue / 2;
  }
  return healthGain;
};
```

I wrote and used this algorithm to meet a requirement that if a hero was to eat food they would gain health. If they ate their favourite, they would get an increased benefit and if it were poisoned they would have lesser returns.

The algorithm is on the Hero class and takes in a food object. The food object has a properties of type(a string) and poisonous (a boolean). The algorithm then checks the state of the food against a property on the Hero class that tells whether or not it is their favourite and renders the appropriate health gain.

Algorithm 2:

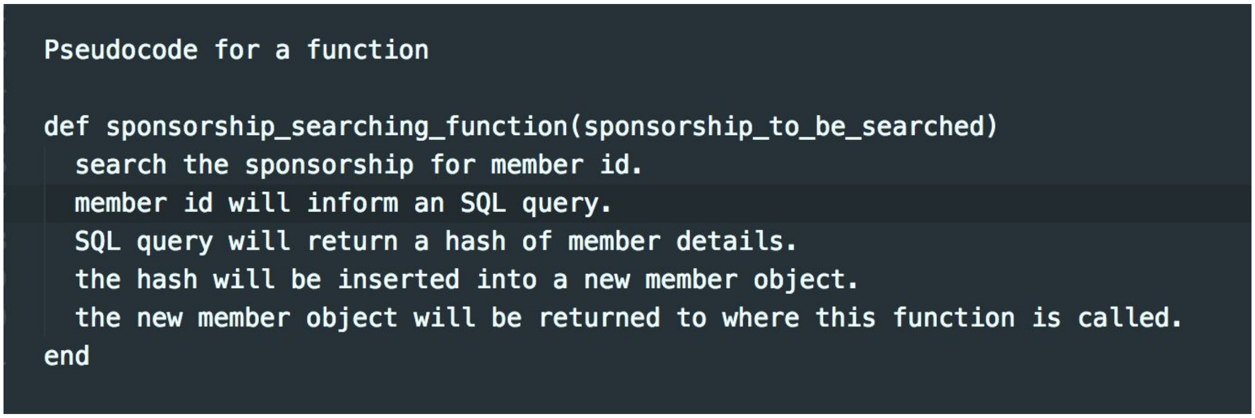


```
private boolean areAnimalsCompatible(ArrayList<Animal> animalsToBeChecked){
    boolean areCompatible = false;
    ArrayList<Animal> carnivores = new ArrayList<>();
    ArrayList<Animal> others = new ArrayList<>();
    for (Animal animal: animalsToBeChecked){
        if (animal instanceof Carnivore){
            carnivores.add(animal);
        }else{ others.add(animal);}
    }
    if((others.size() == 0) || (carnivores.size() == 0)){
        areCompatible = true;
    }
    return areCompatible;
}
```

The algorithm above is used as part of my program to check and block putting carnivores into enclosures along side herbivores or omnivores.

The algorithm takes in an ArrayList of animals, composed of the animals present in the enclosure and those you wish to add. It then iterates through and puts them into the sub-arraylists of carnivores and other(being herbivore and omnivore). It will then return a boolean of compatibility based on presence of non-compatible animals.

P.10.



```
Pseudocode for a function

def sponsorship_searching_function(sponsorship_to_be_searched)
  search the sponsorship for member id.
  member id will inform an SQL query.
  SQL query will return a hash of member details.
  the hash will be inserted into a new member object.
  the new member object will be returned to where this function is called.
end
```

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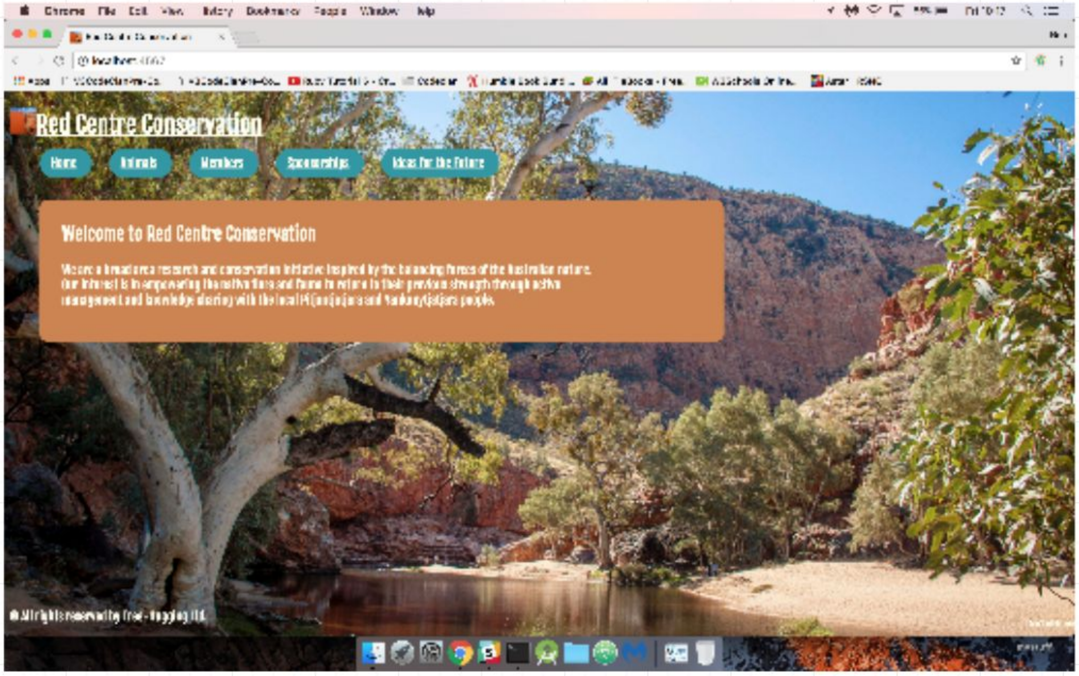
P. 11 Screenshot and Github link of a project I worked on alone.

https://github.com/benrconway/Conservation_Website_Ruby_Project



Welcome to Red Centre Conservation

We are a broad area research and conservation initiative inspired by the balancing forces of the Australian nature. Our interest is in empowering the native flora and fauna to return to their previous strength through active management and knowledge sharing with the local Pitjantjatjara and Yankunytjatjara people.

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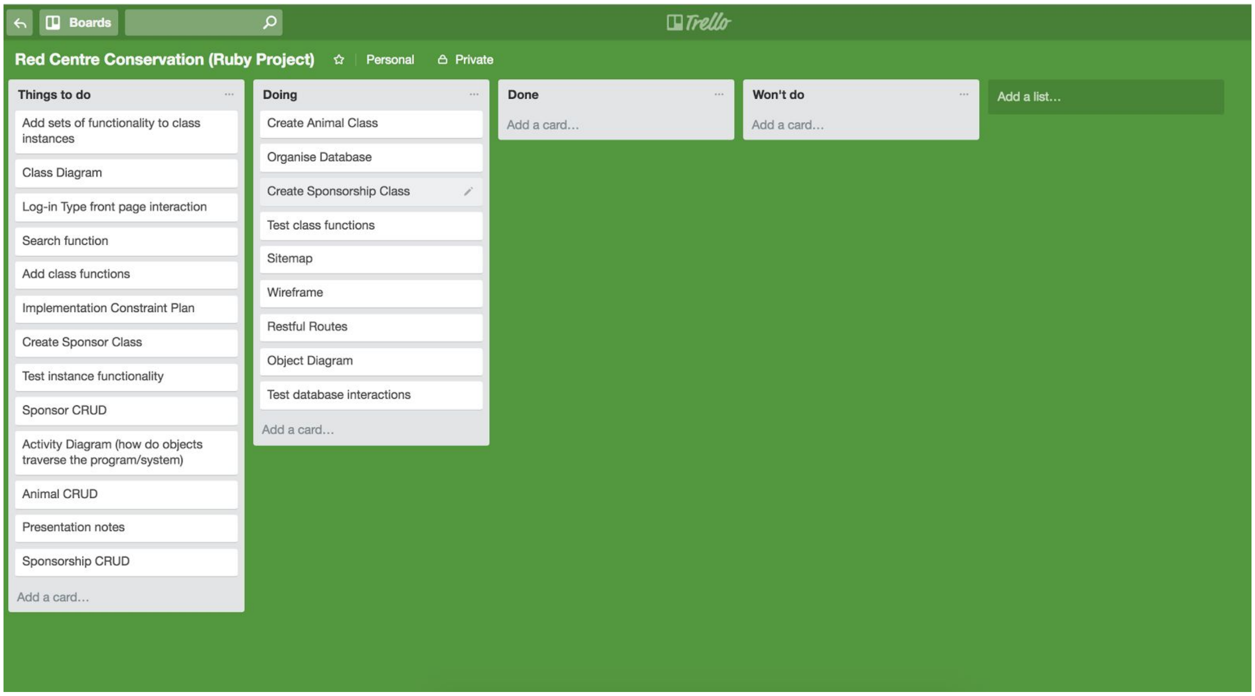
P. 12 Screenshots of planning to show changes over time.

1: At beginning of project: Red Centre Conservation Web App



Red Centre Conservation (Ruby Project)

Things to do

- Add sets of functionality to class instances
- Class Diagram
- Log-in Type front page interaction
- Search function
- Add class functions
- Implementation Constraint Plan
- Create Sponsor Class
- Test instance functionality
- Sponsor CRUD
- Activity Diagram (how do objects traverse the program/system)
- Animal CRUD
- Presentation notes
- Sponsorship CRUD

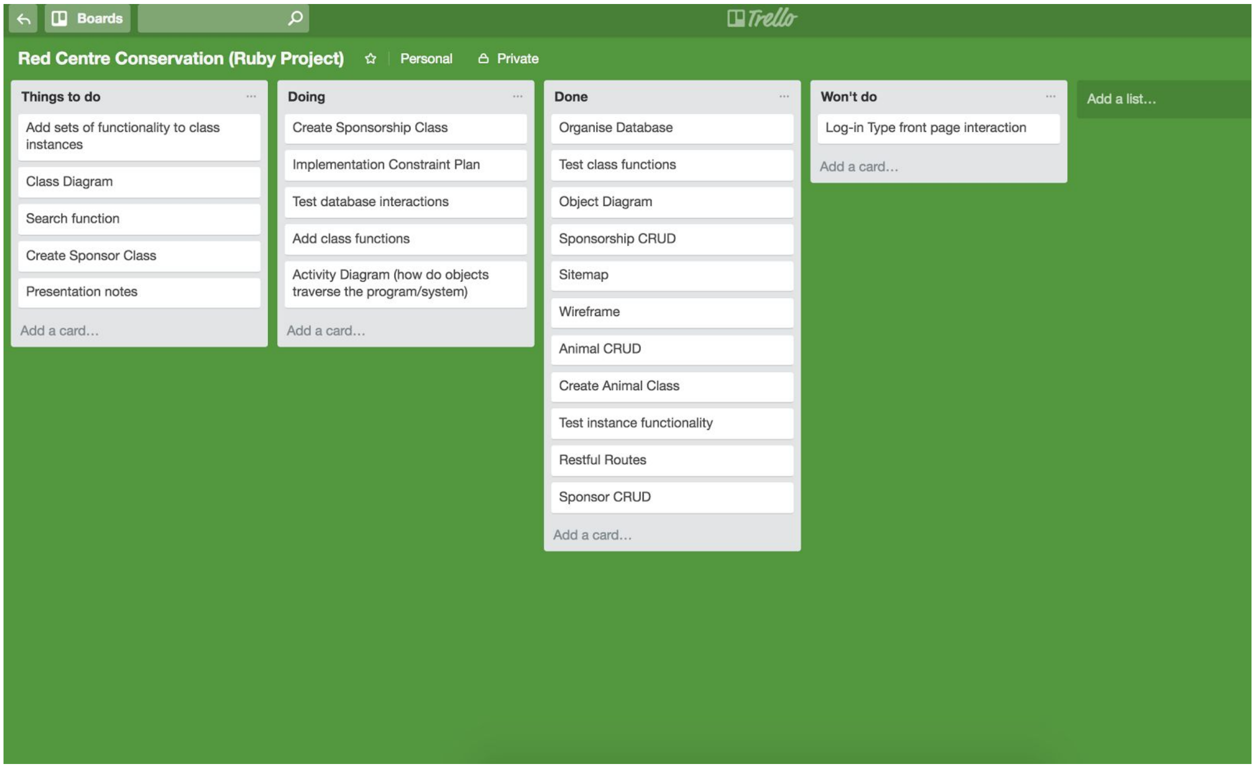
Doing

- Create Animal Class
- Organise Database
- Create Sponsorship Class
- Test class functions
- Sitemap
- Wireframe
- Restful Routes
- Object Diagram
- Test database interactions

Done

Won't do

2: Over half way through project week sprint



Red Centre Conservation (Ruby Project)

Things to do

- Add sets of functionality to class instances
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- Search function
- Create Sponsor Class
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Doing

- Create Sponsorship Class
- Implementation Constraint Plan
- Test database interactions
- Add class functions
- Activity Diagram (how do objects traverse the program/system)

Done

- Organise Database
- Test class functions
- Object Diagram
- Sponsorship CRUD
- Sitemap
- Wireframe
- Animal CRUD
- Create Animal Class
- Test instance functionality
- Restful Routes
- Sponsor CRUD

Won't do

- Log-in Type front page interaction

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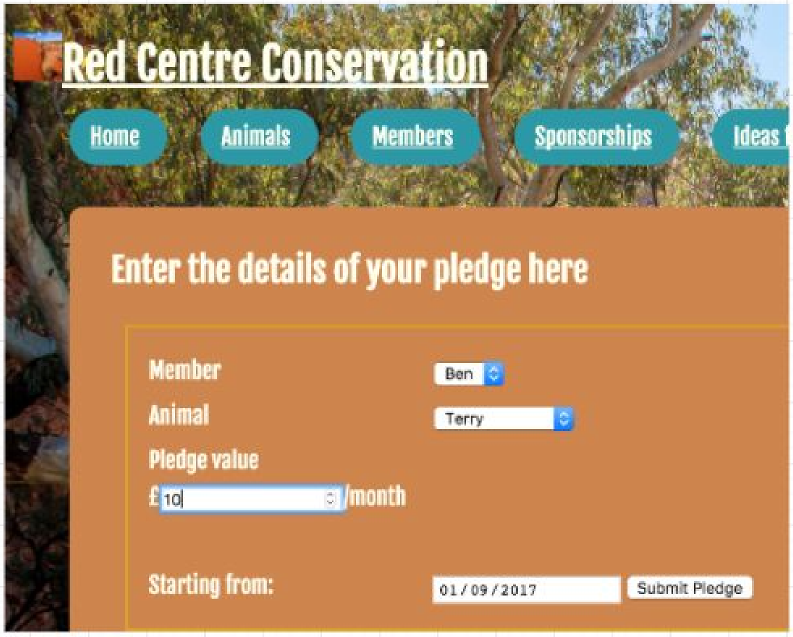
P. 13 User input being processed according to design requirements

The design brief required that users would be able to make a pledge for specific animal profiles for an amount of their choosing.



Red Centre Conservation

Enter the details of your pledge here

Member: Ben

Animal: Terry

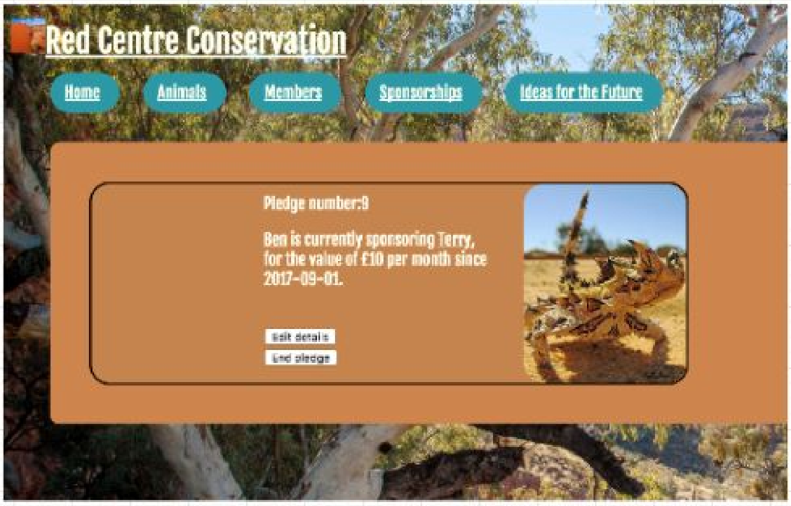
Pledge value

£ 10 /month

Starting from: 01/09/2017

Submit Pledge

In the first image, the member named Ben has input the profile they wish to sponsor and set an amount per month.



Red Centre Conservation

Pledge number:9

Ben is currently sponsoring Terry, for the value of £10 per month since 2017-09-01.

This information has then been saved to a database and is available to be reviewed, edited or deleted.

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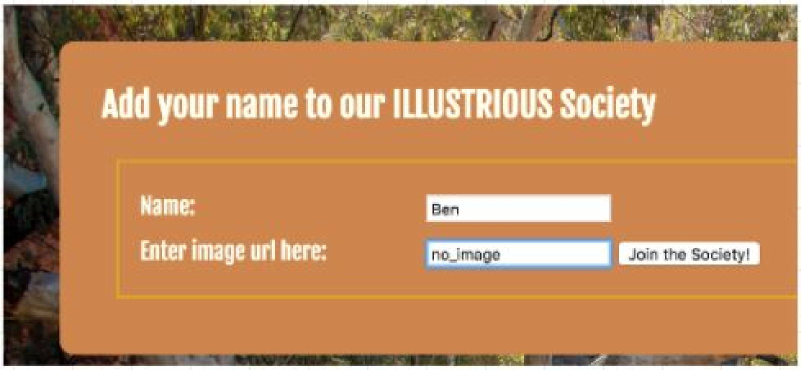
P. 14 Show an interaction with data persistence.

User inputs their name.

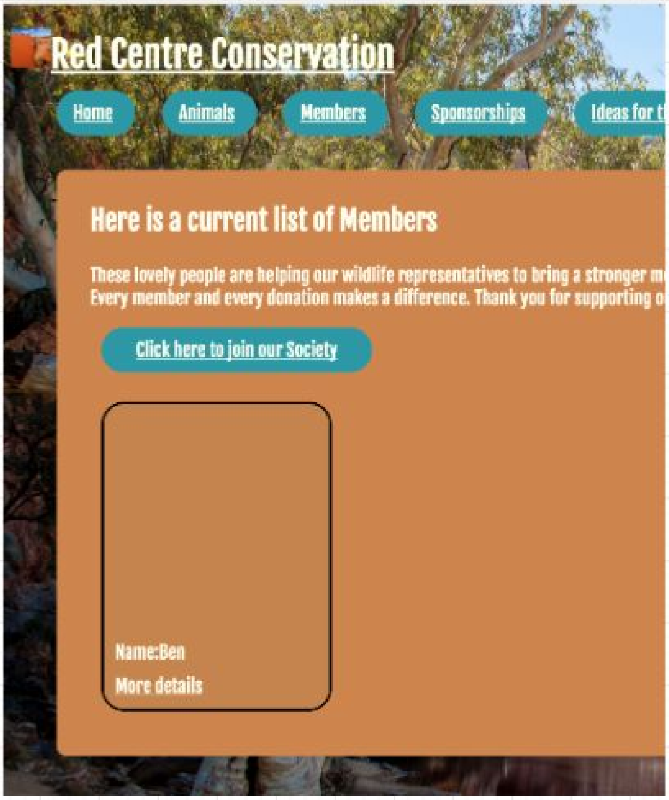


Add your name to our ILLUSTRIOUS Society

Name: Ben

Enter image url here: no_image

The information has now been persisted to a database



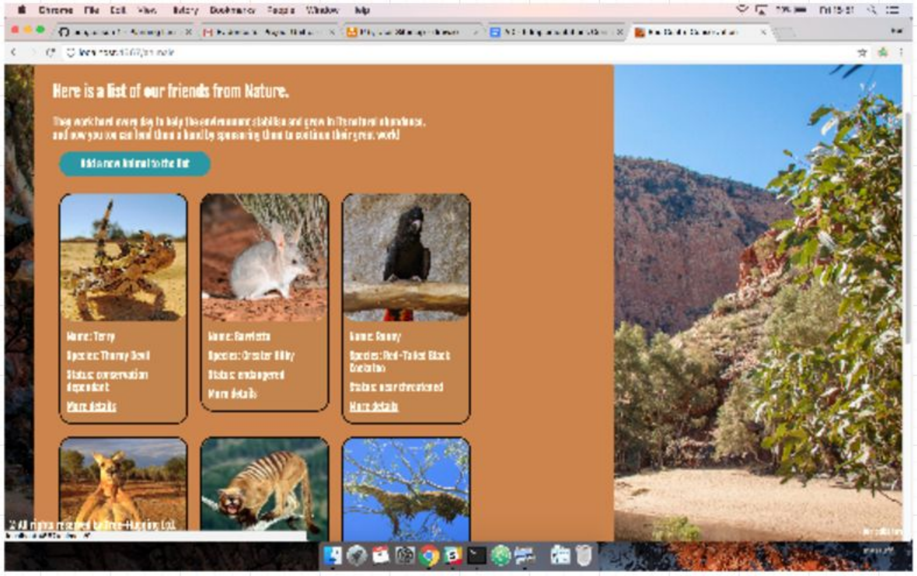
Here is a current list of Members

These lovely people are helping our wildlife representatives to bring a stronger m
Every member and every donation makes a difference. Thank you for supporting o

Name:Ben
More details

Benjamin Conway
P15 Evidence

Step 1
Click on
"more details"



Here is a list of our friends from Nature.

They work hard every day to help the environment stabilize and grow in its natural abundance, and now you too can lend them a hand by sponsoring them to continue their great work!

Add a new Animal to the list

Name: Terry
Species: Thorny Devil
Status: conservation dependent
More details

Name: Barrietta
Species: Greater Bilby
Status: endangered
More details

Name: Sonny
Species: Red-Tailed Black Cockatoo
Status: near threatened
More details

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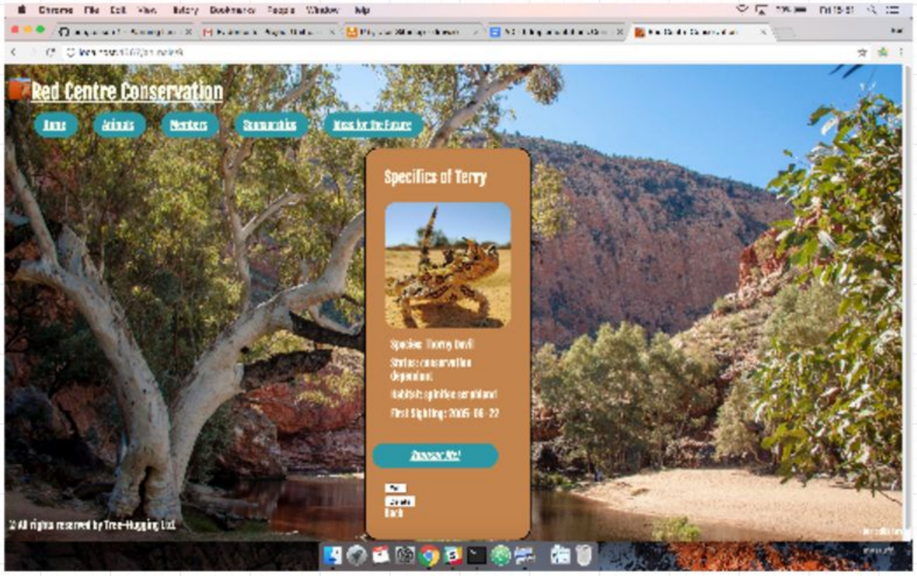
Result



Red Centre Conservation

Home Animals Members Sponsorships Ideas for the Future

Specifics of Terry

Species: Thorny Devil
Status: conservation dependent
Habitat: spinifex scrubland
First Sighting: 2005-06-22

Sponsor Me!

Edit
Delete
Back

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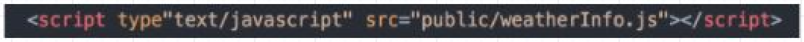
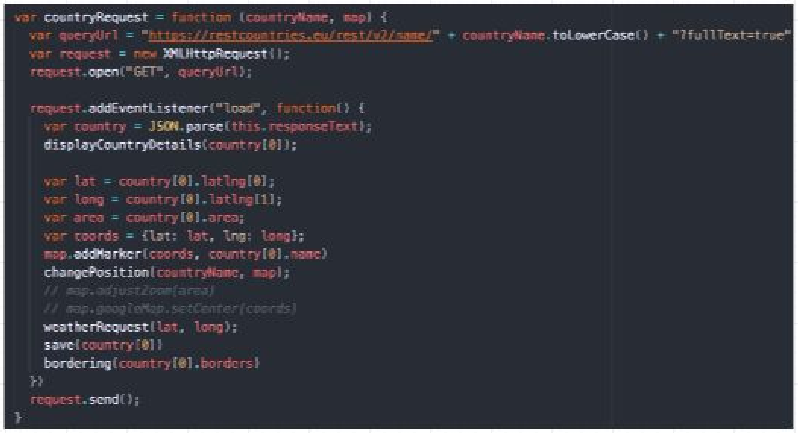
P.16: Show an API being used with your program

When the country select from this code is used, it samples the latitude and longitude of a particular country.



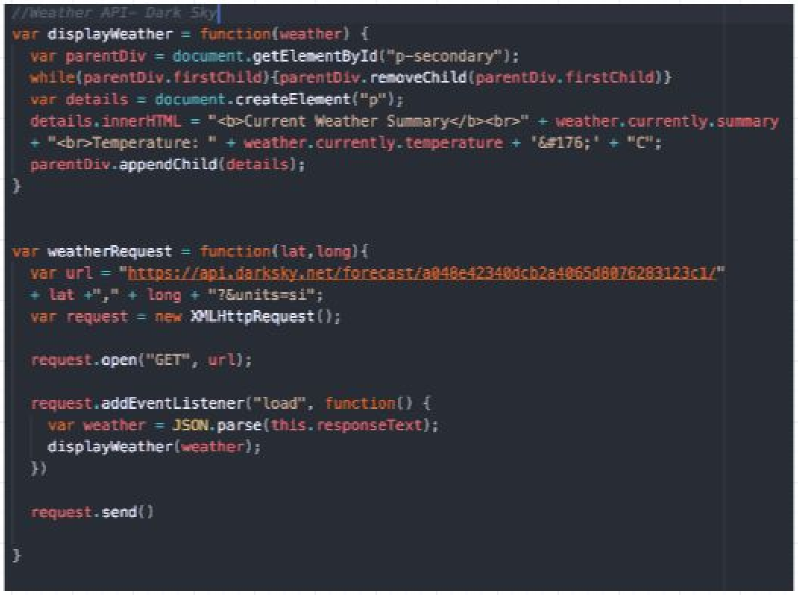
```
<script type"text/javascript" src="public/weatherInfo.js"></script>
```



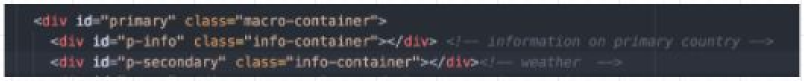
```
var countryRequest = function (countryName, map) {
  var queryUrl = "https://restcountries.eu/rest/v2/name/" + countryName.toLowerCase() + "?fullText=true"
  var request = new XMLHttpRequest();
  request.open("GET", queryUrl);

  request.addEventListener("load", function() {
    var country = JSON.parse(this.responseText);
    displayCountryDetails(country[0]);

    var lat = country[0].latlng[0];
    var long = country[0].latlng[1];
    var area = country[0].area;
    var coords = {lat: lat, lng: long};
    map.addMarker(coords, country[0].name)
    changePosition(countryName, map);
    // map.adjustZoom(area)
    // map.googleMap.setCenter(coords)
    weatherRequest(lat, long);
    save(country[0])
    bordering(country[0].borders)
  })
  request.send();
}
```

It sends those two figures into this request to Dark Sky weather API for current weather at the location specified.

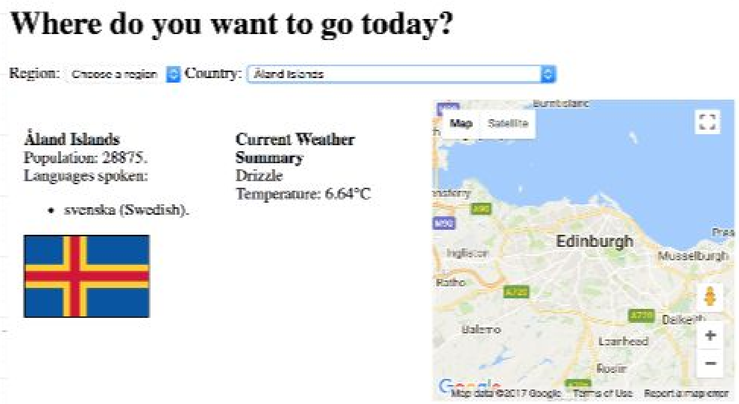
The information is then rendered into a div and placed programmatically into the HTML of the application.



```
//Weather API- Dark Sky
var displayWeather = function(weather) {
  var parentDiv = document.getElementById("p-secondary");
  while(parentDiv.firstChild){parentDiv.removeChild(parentDiv.firstChild)}
  var details = document.createElement("p");
  details.innerHTML = "<b>Current Weather Summary</b><br>" + weather.currently.summary
  + "<br>Temperature: " + weather.currently.temperature + '&#176;' + "C";
  parentDiv.appendChild(details);
}


var weatherRequest = function(lat,long){
  var url = "https://api.darksky.net/forecast/a048e42340dcb2a4065d8076283123c1/"
  + lat +"," + long + "?&units=si";
  var request = new XMLHttpRequest();

  request.open("GET", url);

  request.addEventListener("load", function() {
    var weather = JSON.parse(this.responseText);
    displayWeather(weather);
  })

  request.send()

}
```



```
<div id="primary" class="macro-container">
  <div id="p-info" class="info-container"></div> <!-- information on primary country -->
  <div id="p-secondary" class="info-container"></div><!-- weather  -->
```



Where do you want to go today?

Region: Choose a region Country: Åland Islands

Åland Islands
Population: 28875.
Languages spoken:

- svenska (Swedish).

Current Weather Summary
Drizzle
Temperature: 6.64°C

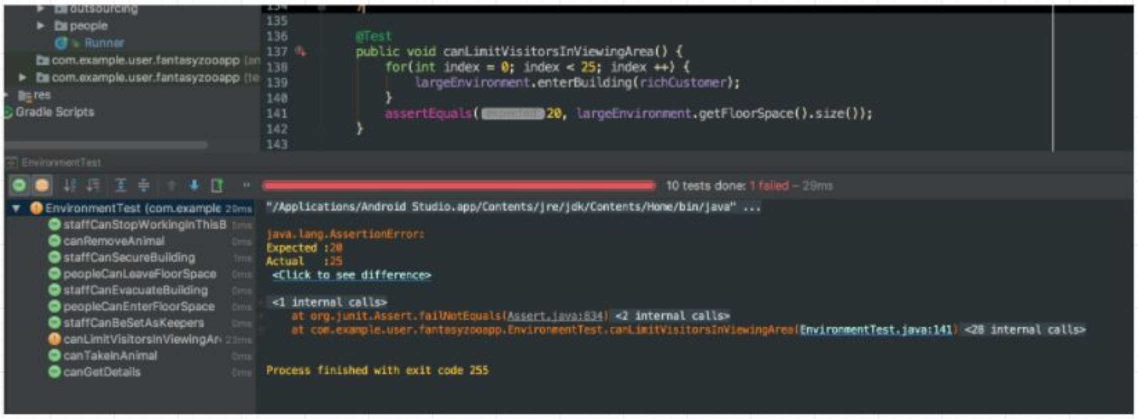
With the weather being displayed between the country selected and a googlemap.

Benjamin R Conway
P.17 Bug Tracking Report

User can select pre-planned route	Failed	Refactored scope of render function	Passed
User can select waypoints and see markers on map	Failed	Add extra data for waypoints in database to define waypoint location	Passed
Waypoint Markers are correctly located	Failed	Correct database information with more accurate latitude/longitude	Passed
Origin and destination can be added by autocomplete	Failed	Implement proper request to Google API	Passed
Markers are rendered for pre-planned route waypoints	Failed	Functionality for adding markers is added to rendering routes	Passed
Icons are specific to waypoint type	Failed	Method to differentiate marker icon added to placement function	Passed
Photo from Flickr loads in waypoint InfoWindow	Failed	Flickr request made on InfoWindow open rather than marker placement	Passed

Benjamin R Conway
P. 18 Testing in a Program

Example 1 of testing in a program:
Limiting Customer Objects within an Environment

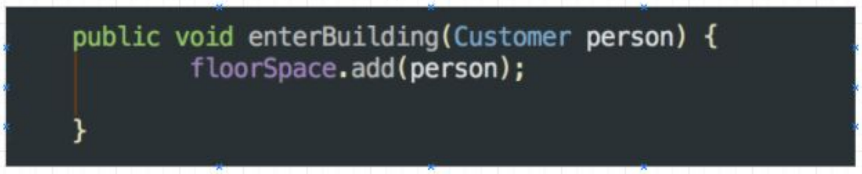

outsourcing
people
Runner
com.example.user.fantasyzooapp (an
com.example.user.fantasyzooapp (te
res
Gradle Scripts
EnvironmentTest
10 tests done: 1 failed – 29ms

```
    @Test
    public void canLimitVisitorsInViewingArea() {
        for(int index = 0; index < 25; index ++) {
            largeEnvironment.enterBuilding(richCustomer);
        }
        assertEquals(expected: 20, largeEnvironment.getFloorSpace().size());
    }
```

```
EnvironmentTest (com.example 29ms
    staffCanStopWorkingInThisB 1ms
    canRemoveAnimal 0ms
    staffCanSecureBuilding 1ms
    peopleCanLeaveFloorSpace 0ms
    staffCanEvacuateBuilding 0ms
    peopleCanEnterFloorSpace 0ms
    staffCanBeSetAsKeepers 0ms
    canLimitVisitorsInViewingAr 23ms
    canTakeInAnimal 0ms
    canGetDetails 0ms
```

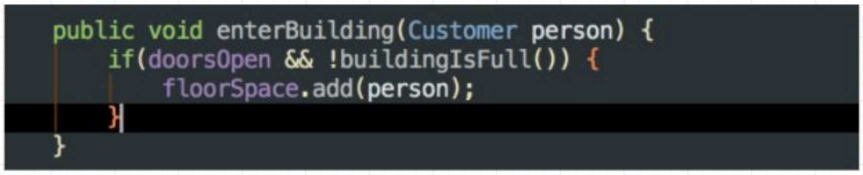
```
"/Applications/Android Studio.app/Contents/jre/jdk/Contents/Home/bin/java" ...

java.lang.AssertionError:
Expected :20
Actual   :25
 <Click to see difference>

 <1 internal calls>
    at org.junit.Assert.failNotEquals(Assert.java:834) <2 internal calls>
    at com.example.user.fantasyzooapp.EnvironmentTest.canLimitVisitorsInViewingArea(EnvironmentTest.java:141) <28 internal calls>


Process finished with exit code 255
```

Code used to add customer objects to an environment



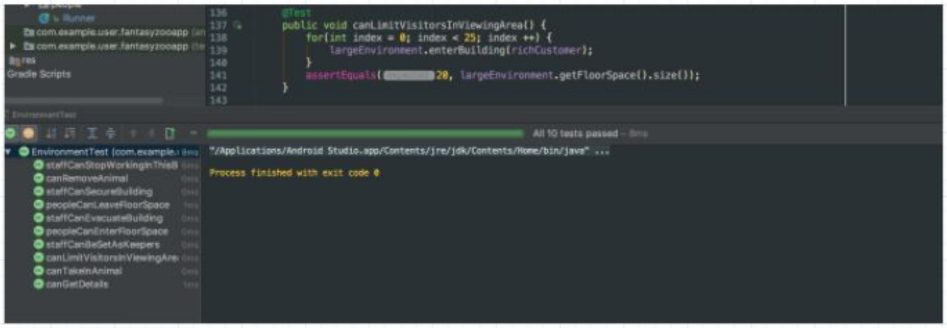
```
public void enterBuilding(Customer person) {
        floorSpace.add(person);

}
```

Code adjusted to include limitations



```
public void enterBuilding(Customer person) {
    if(doorsOpen && !buildingIsFull()) {
        floorSpace.add(person);
    }
}
```

With altered code, the test now passes


people
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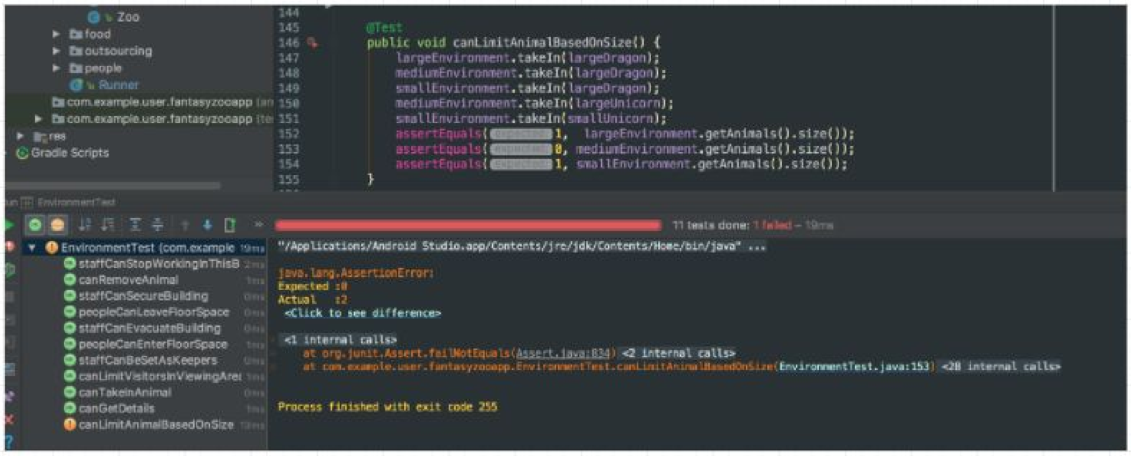
res
Gradle Scripts
EnvironmentTest
All 10 tests passed – 8ms

```
    @Test
    public void canLimitVisitorsInViewingArea() {
        for(int index = 0; index < 25; index ++) {
            largeEnvironment.enterBuilding(richCustomer);
        }
        assertEquals(expected: 20, largeEnvironment.getFloorSpace().size());
    }
```

```
EnvironmentTest (com.example. 8ms
    staffCanStopWorkingInThisB 0ms
    canRemoveAnimal 0ms
    staffCanSecureBuilding 0ms
    peopleCanLeaveFloorSpace 1ms
    staffCanEvacuateBuilding 0ms
    peopleCanEnterFloorSpace 0ms
    staffCanBeSetAsKeepers 0ms
    canLimitVisitorsInViewingAre 0ms
    canTakeInAnimal 0ms
    canGetDetails 1ms
```

```
"/Applications/Android Studio.app/Contents/jre/jdk/Contents/Home/bin/java" ...

Process finished with exit code 0
```

Example 2 of Testing in a program:
Limiting animal objects capable of being placed in an environment based on size



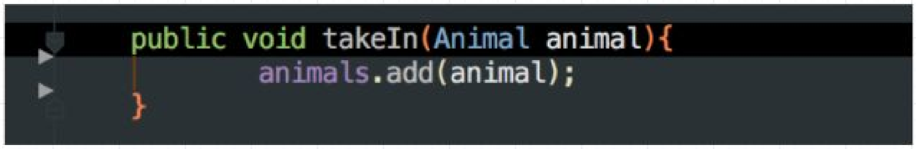
```
@Test
public void canLimitAnimalBasedOnSize() {
    largeEnvironment.takeIn(largeDragon);
    mediumEnvironment.takeIn(largeDragon);
    smallEnvironment.takeIn(largeDragon);
    mediumEnvironment.takeIn(largeUnicorn);
    smallEnvironment.takeIn(smallUnicorn);
    assertEquals( expected: 1,  largeEnvironment.getAnimals().size());
    assertEquals( expected: 0, mediumEnvironment.getAnimals().size());
    assertEquals( expected: 1, smallEnvironment.getAnimals().size());
}
```

11 tests done: 1 failed – 19ms

```
EnvironmentTest (com.example
    staffCanStopWorkingInThisB
    canRemoveAnimal
    staffCanSecureBuilding
    peopleCanLeaveFloorSpace
    staffCanEvacuateBuilding
    peopleCanEnterFloorSpace
    staffCanBeSetAsKeepers
    canLimitVisitorsInViewingAre
    canTakeInAnimal
    canGetDetails
    canLimitAnimalBasedOnSize
```

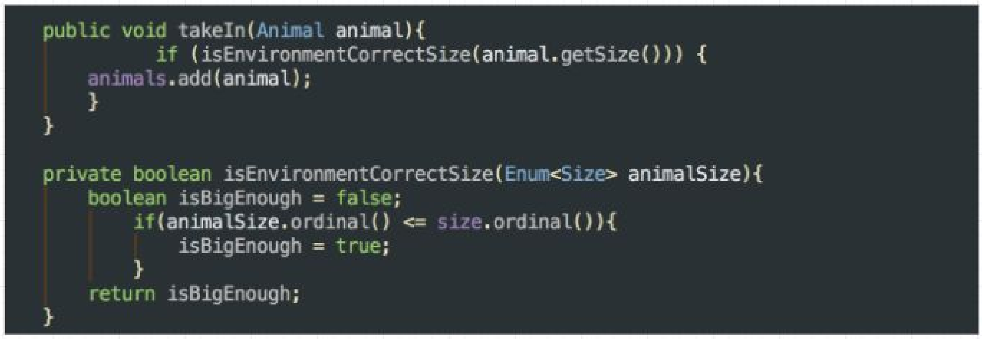
```
"/Applications/Android Studio.app/Contents/jre/jdk/Contents/Home/bin/java" ...

java.lang.AssertionError:
Expected :0
Actual   :2
 <Click to see difference>

 <1 internal calls>
    at org.junit.Assert.failNotEquals(Assert.java:834) <2 internal calls>
    at com.example.user.fantasyzooapp.EnvironmentTest.canLimitAnimalBasedOnSize(EnvironmentTest.java:153) <28 internal calls>


Process finished with exit code 255
```

Code to accept Animals into enclosures while failing to pass the test



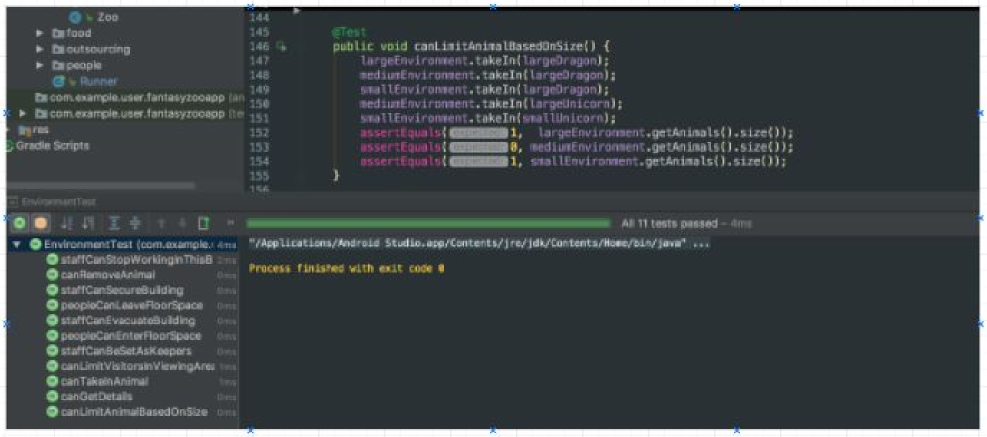
```
public void takeIn(Animal animal){
        animals.add(animal);
}
```

Adjustment made to code to limit size of Animal in particular environment



```
public void takeIn(Animal animal){
          if (isEnvironmentCorrectSize(animal.getSize())) {
    animals.add(animal);
    }
}

private boolean isEnvironmentCorrectSize(Enum<Size> animalSize){
    boolean isBigEnough = false;
        if(animalSize.ordinal() <= size.ordinal()){
            isBigEnough = true;
        }
    return isBigEnough;
}
```

Test running and passing with the new code



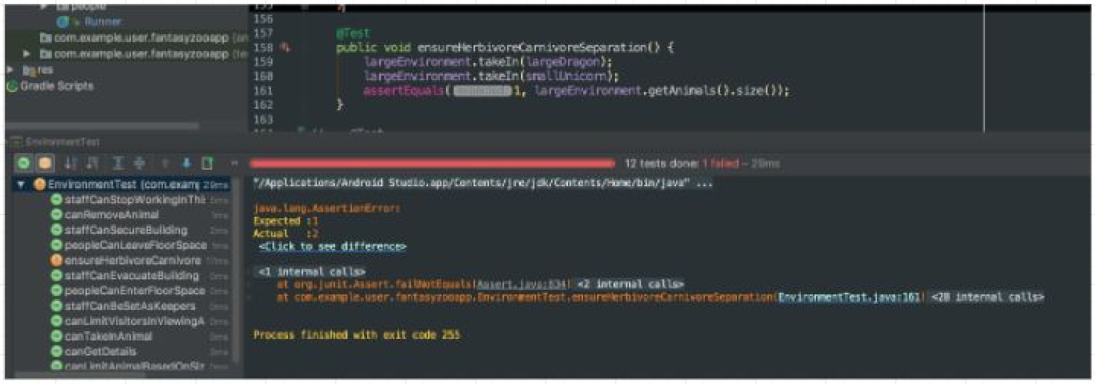
```
@Test
public void canLimitAnimalBasedOnSize() {
    largeEnvironment.takeIn(largeDragon);
    mediumEnvironment.takeIn(largeDragon);
    smallEnvironment.takeIn(largeDragon);
    mediumEnvironment.takeIn(largeUnicorn);
    smallEnvironment.takeIn(smallUnicorn);
    assertEquals( expected: 1,  largeEnvironment.getAnimals().size());
    assertEquals( expected: 0, mediumEnvironment.getAnimals().size());
    assertEquals( expected: 1, smallEnvironment.getAnimals().size());
}
```

All 11 tests passed – 4ms

```
EnvironmentTest (com.example.
    staffCanStopWorkingInThisB
    canRemoveAnimal
    staffCanSecureBuilding
    peopleCanLeaveFloorSpace
    staffCanEvacuateBuilding
    peopleCanEnterFloorSpace
    staffCanBeSetAsKeepers
    canLimitVisitorsInViewingAre
    canTakeInAnimal
    canGetDetails
    canLimitAnimalBasedOnSize
```

```
"/Applications/Android Studio.app/Contents/jre/jdk/Contents/Home/bin/java" ...

Process finished with exit code 0
```

Example 3 of Testing in a program: Ensuring Carnivore and Herbivore/Omnivore objects do not inhabit the same environment



```
@Test
public void ensureHerbivoreCarnivoreSeparation() {
    largeEnvironment.takeIn(largeDragon);
    largeEnvironment.takeIn(smallUnicorn);
    assertEquals( [illegible]1, largeEnvironment.getAnimals().size());
}
```

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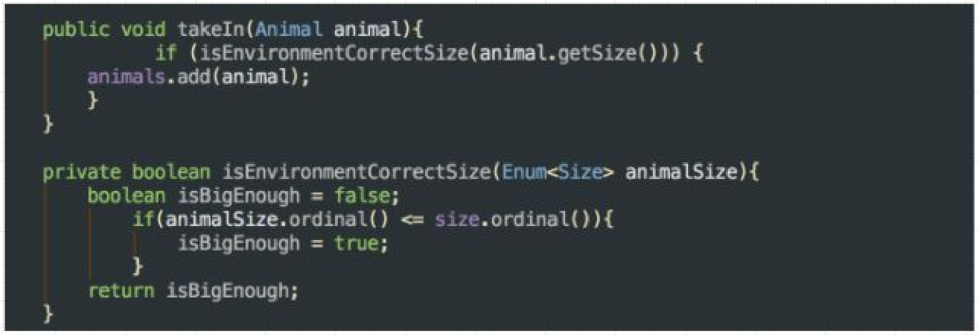
Gradle Scripts
EnvironmentTest
12 tests done: 1 failed – 29ms

```
EnvironmentTest (com.examp
    staffCanStopWorkingInThe
    canRemoveAnimal
    staffCanSecureBuilding
    peopleCanLeaveFloorSpace
    ensureHerbivoreCarnivore
    staffCanEvacuateBuilding
    peopleCanEnterFloorSpace
    staffCanBeSetAsKeepers
    canLimitVisitorsInViewingA
    canTakeInAnimal
    canGetDetails
    canLimitAnimalBasedOnSiz
```

```
"/Applications/Android Studio.app/Contents/jre/jdk/Contents/Home/bin/java" ...

java.lang.AssertionError:
Expected :1
Actual   :2
 <Click to see difference>

 <1 internal calls>
    at org.junit.Assert.failNotEquals(Assert.java:834) <2 internal calls>
    at com.example.user.fantasyzooapp.EnvironmentTest.ensureHerbivoreCarnivoreSeparation(EnvironmentTest.java:161) <28 internal calls>

Process finished with exit code 255
```

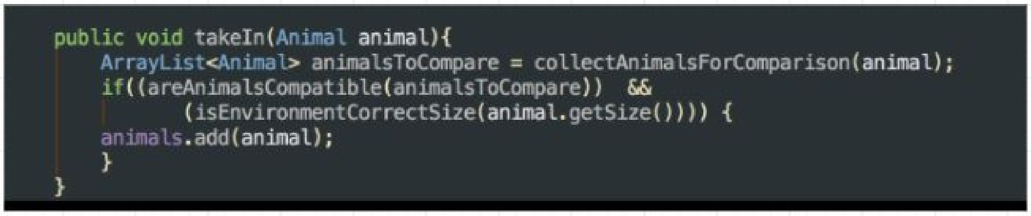
Code that fails the new test



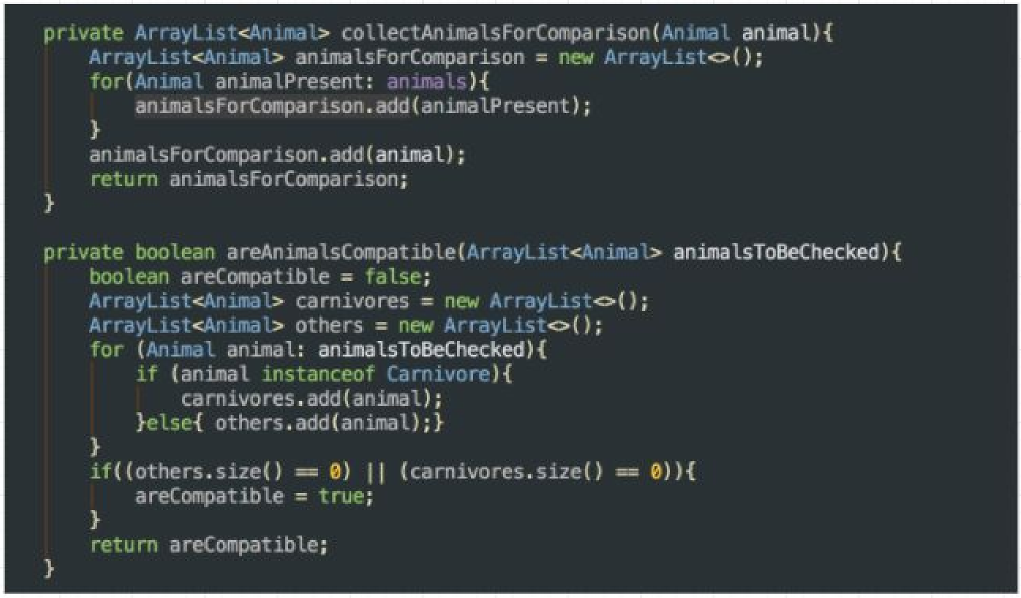
```
public void takeIn(Animal animal){
        if (isEnvironmentCorrectSize(animal.getSize())) {
    animals.add(animal);
    }
}

private boolean isEnvironmentCorrectSize(Enum<Size> animalSize){
    boolean isBigEnough = false;
        if(animalSize.ordinal() <= size.ordinal()){
            isBigEnough = true;
        }
    return isBigEnough;
}
```

Please see next page for changes made to the code and the test passing.

Alterations made:

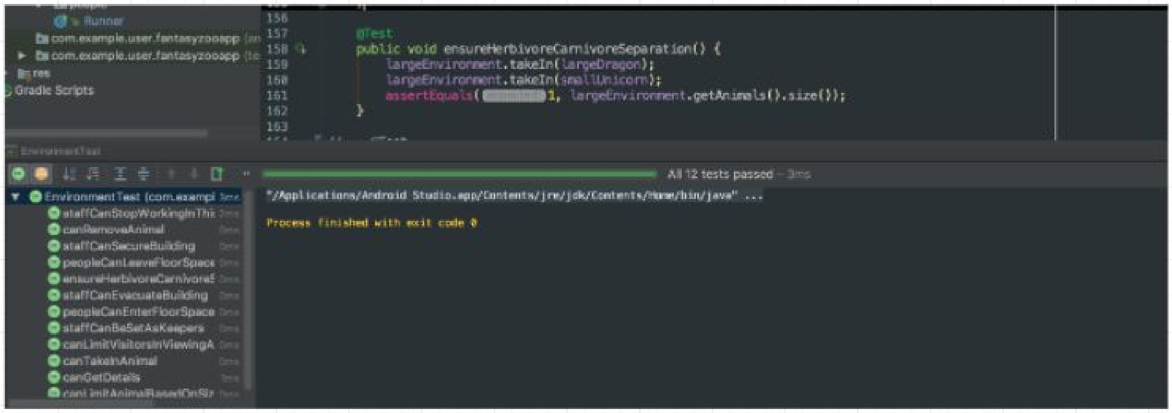


```
public void takeIn(Animal animal){
    ArrayList<Animal> animalsToCompare = collectAnimalsForComparison(animal);
    if((areAnimalsCompatible(animalsToCompare))  &&
            (isEnvironmentCorrectSize(animal.getSize()))) {
    animals.add(animal);
    }
}
```



```
private ArrayList<Animal> collectAnimalsForComparison(Animal animal){
    ArrayList<Animal> animalsForComparison = new ArrayList<>();
    for(Animal animalPresent: animals){
        animalsForComparison.add(animalPresent);
    }
    animalsForComparison.add(animal);
    return animalsForComparison;
}

private boolean areAnimalsCompatible(ArrayList<Animal> animalsToBeChecked){
    boolean areCompatible = false;
    ArrayList<Animal> carnivores = new ArrayList<>();
    ArrayList<Animal> others = new ArrayList<>();
    for (Animal animal: animalsToBeChecked){
        if (animal instanceof Carnivore){
            carnivores.add(animal);
        }else{ others.add(animal);}
    }
    if((others.size() == 0) || (carnivores.size() == 0)){
        areCompatible = true;
    }
    return areCompatible;
}
```

Altered code passing the new test



Runner
com.example.user.fantasyzooapp
com.example.user.fantasyzooapp
res
Gradle Scripts
EnvironmentTest

```
    @Test
    public void ensureHerbivoreCarnivoreSeparation() {
        largeEnvironment.takeIn(largeDragon);
        largeEnvironment.takeIn(smallUnicorn);
        assertEquals(1, largeEnvironment.getAnimals().size());
    }
```

All 12 tests passed – 3ms

```
EnvironmentTest (com.exampl
staffCanStopWorkingInThi
canRemoveAnimal
staffCanSecureBuilding
peopleCanLeaveFloorSpace
ensureHerbivoreCarnivoreS
staffCanEvacuateBuilding
peopleCanEnterFloorSpace
staffCanBeSetAsKeepers
canLimitVisitorsInViewingA
canTakeInAnimal
canGetDetails
canLimitAnimalBasedOnSiz
```

```
"/Applications/Android Studio.app/Contents/jre/jdk/Contents/Home/bin/java" ...

Process finished with exit code 0
```