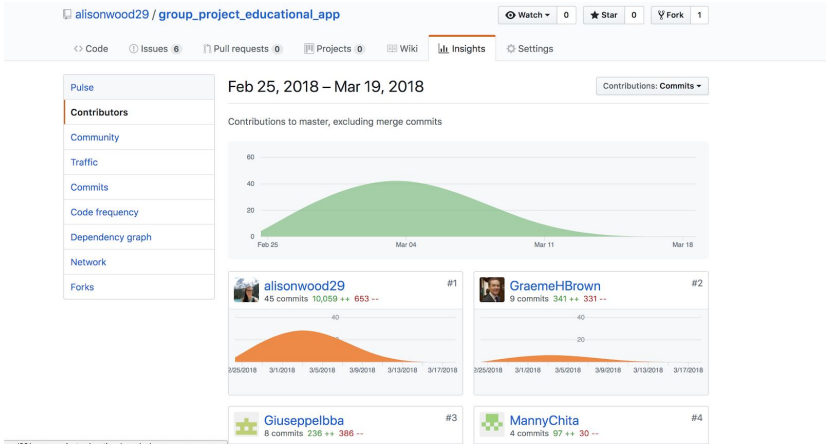
P.1

-group project contributors page



P.2

-group project brief

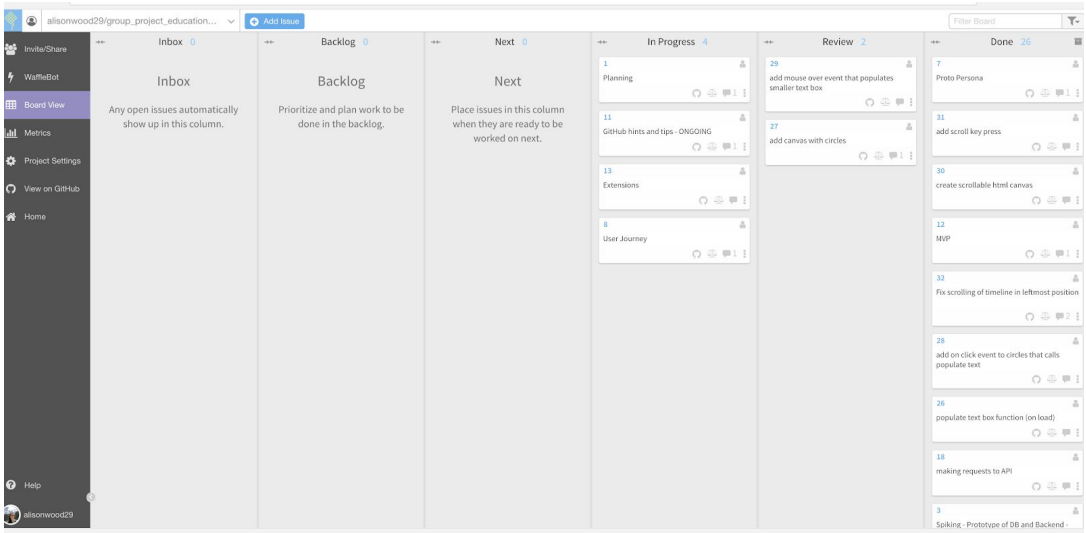
Educational App The BBC are looking to improve their online offering of educational content by developing some interactive apps that display information in a fun and interesting way.

Your task is to make an MVP to put forward to them - this may only be for a small set of information, and may only showcase some of the features to be included in the final app. You might use an API to bring in content or a database to store facts. The topic of the app is your choice, but here are some suggestions you could look into:

Interactive timeline, e.g. of the history of computer programming Interactive map of a historical event - e.g. World War 1, the travels of Christopher Columbus MVP Display some information about a particular topic in an interesting way Have some user interactivity using event listeners, e.g to move through different sections of content

P.3

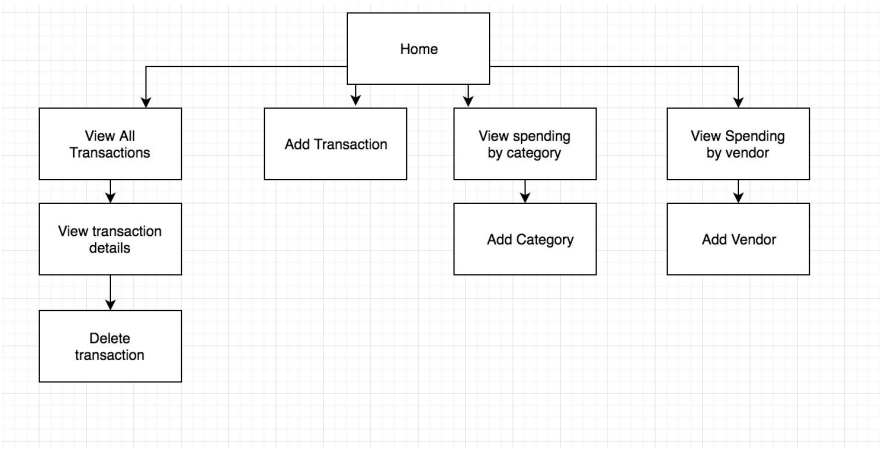
-group project planning



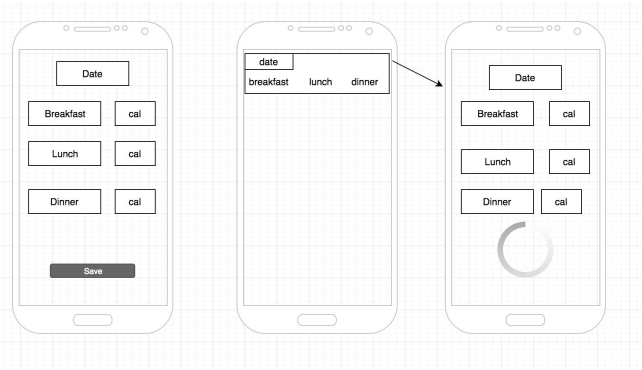
P.4
-An acceptance criteria and test plan

Acceptance Criteria for Budget Tracker	Expected Result/Output	Pass/Fail
A user can view all transactions	List of all transactions is displayed when link in nav is clicked	Pass
A user can add a transaction	User can fill out and submit a form with transaction details which adds to db	Pass
A user can add a new category field for transactions	User can add a new category via a form. Added category now appears in the dropdown menu when adding a new transaction	Pass
A user can view spending by category	Table of spending per category is displayed when user clicks on link	Pass
A user can view spending by date	Table of spending on a selected date is displayed when a user selects a date from a dropdown calendar	Pass

P.5
-create a user sitemap

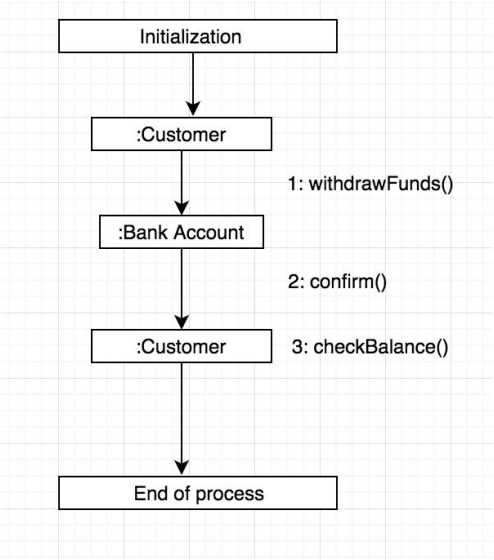


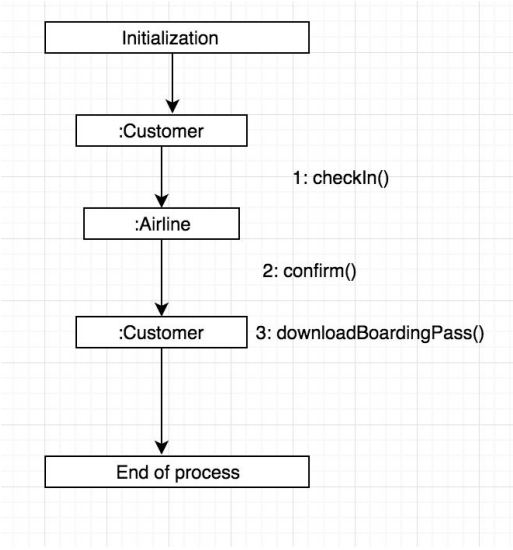
P.6
-wireframe design



P.7

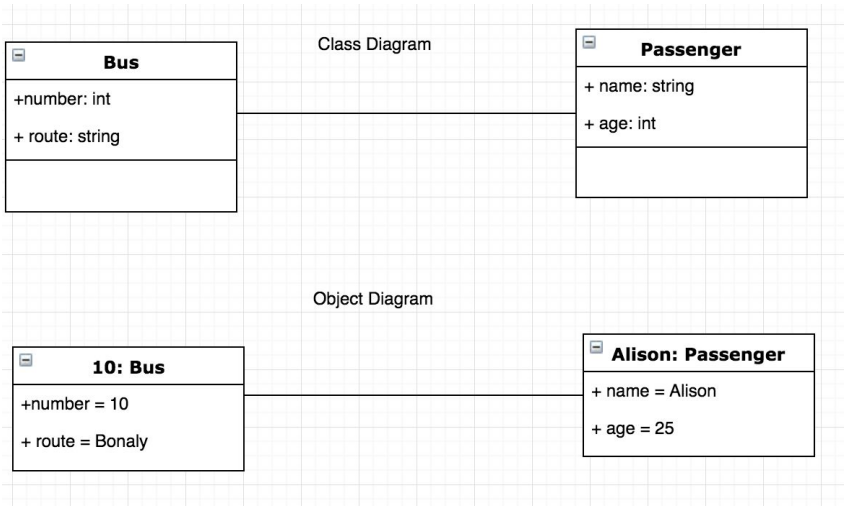
-2 system interaction diagrams

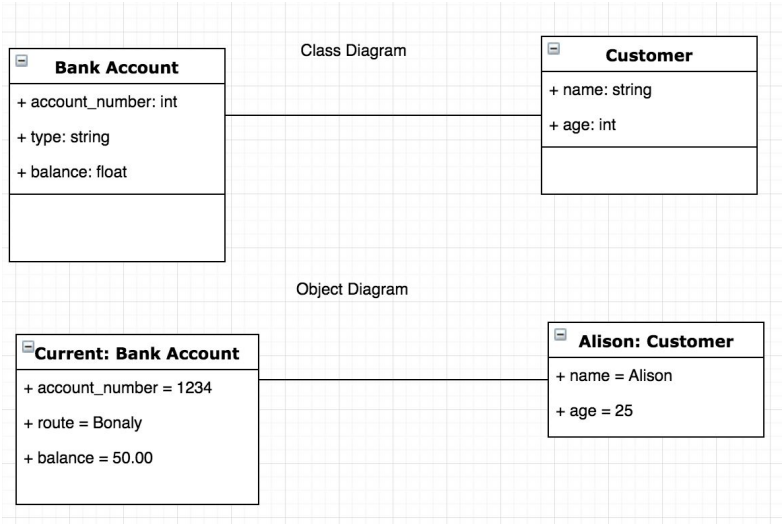




P.8

-2 object diagrams





P.9

-2 algorithms

```
public void addToStock(ISellable item) {
    if(item.getBuyPrice() <= getBudget()) {
        this.stock.add(item);
        this.budget -= item.getBuyPrice();
    }
}
```

This algorithm is for adding an item to the stock of a music shop. An item has a price. If the price of the item is less than or equal to the budget then the shop can add the item to the stock and update the budget by the price of the item. I chose to use this algorithm as you don't want to be able to buy an item if you don't have enough money.

```
public double calculateMarkUp(){
    return this.sellPrice - this.buyPrice;
}
```

```
public double potentialProfit() {
    double profit = 0;
    for(ISellable item: this.stock){
        profit += item.calculateMarkUp();
    }
    return profit;
}
```

This algorithm calculates the potential profit of a shop. The profit starts at 0 then for every item in the shops stock it adds the mark up price to the profit. The mark up is the difference between the sell price and buy price of an item. Once it has looped through every item in the stock array the potential profit will be returned. I used this algorithm because a shop will want to know how much money it can potentially make at any one time.

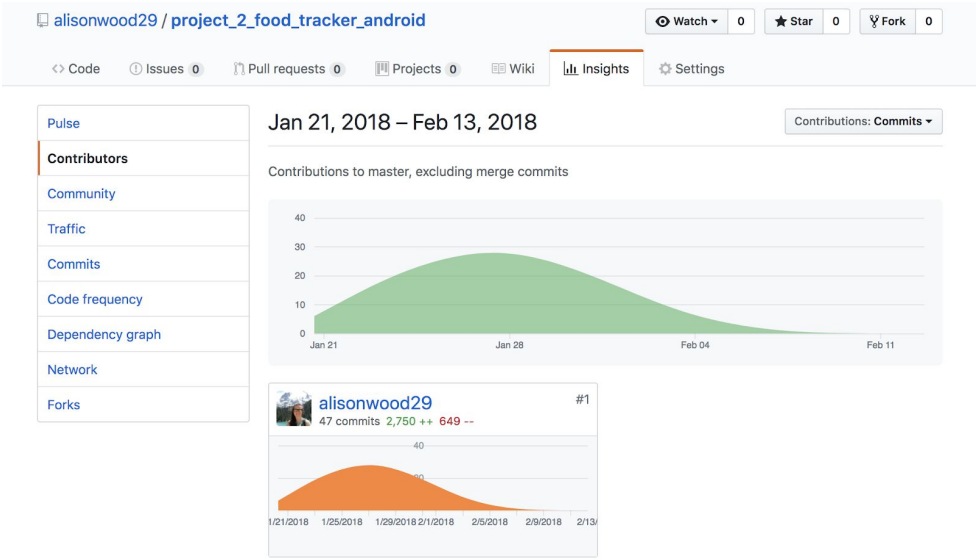
P.10

-pseudo code

```
// get objects out of db
// add to array
// sort array by date
// use array to display in browser
```

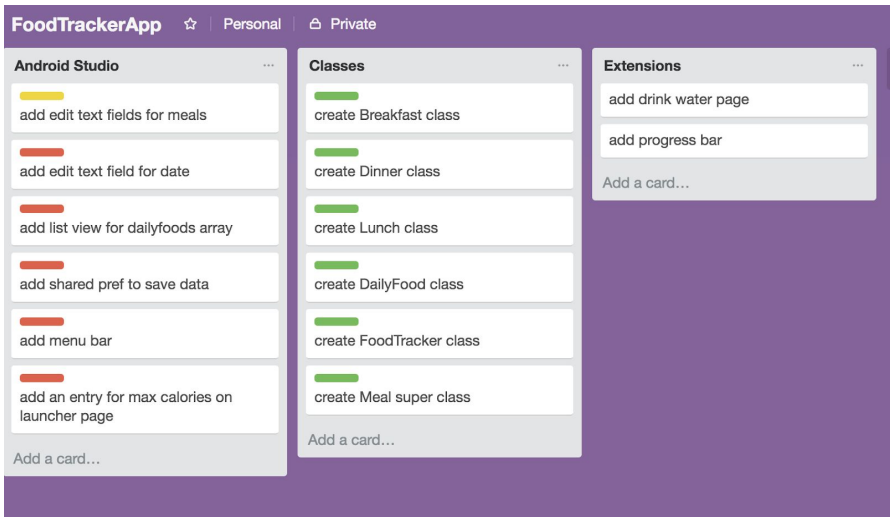
P.11

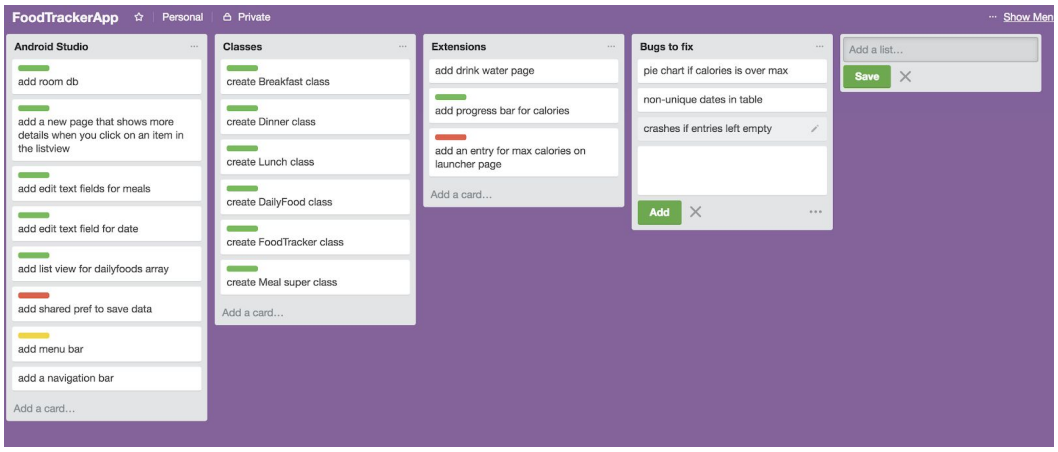
-project where i have worked alone



P.12

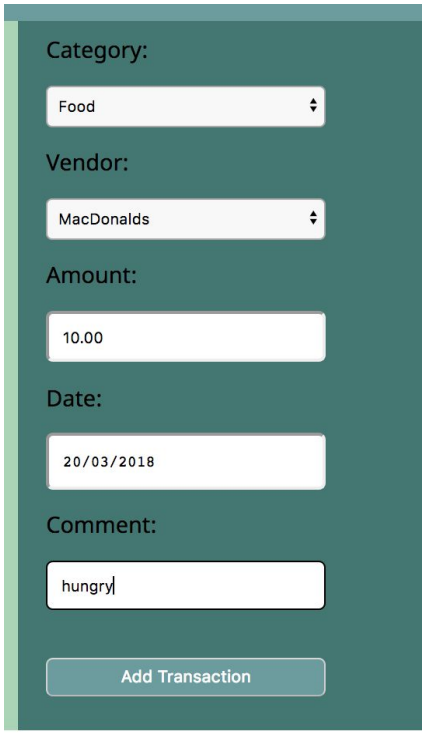
-planning at different stages





P.13

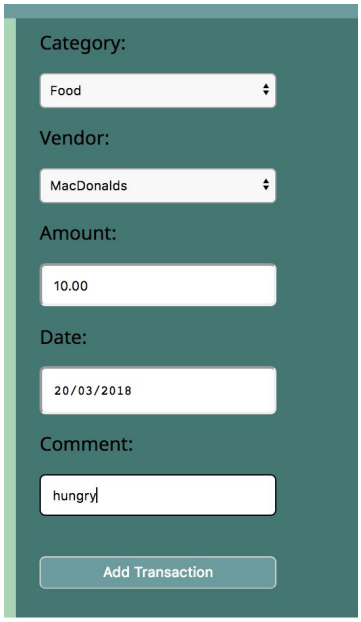
-user inputting into a program



-user input being saved/used

P.14

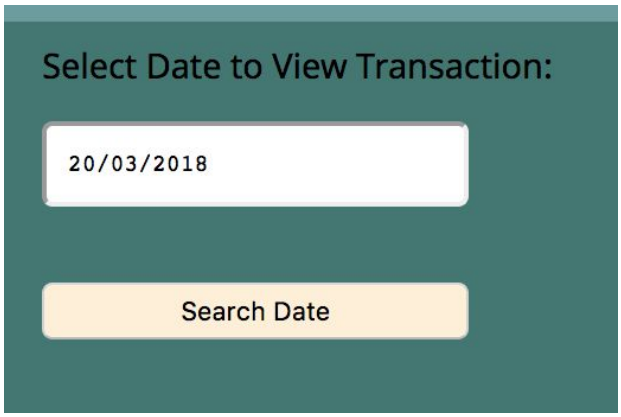
-data being input into program



-data being saved

P.15

-user requesting information



-request being processed

Spending on 2018-03-20

You spent: £20.00

Category	Vendor	Amount	Comment
Food	MacDonalds	10.0	hungry
Food	MacDonalds	10.0	hungry

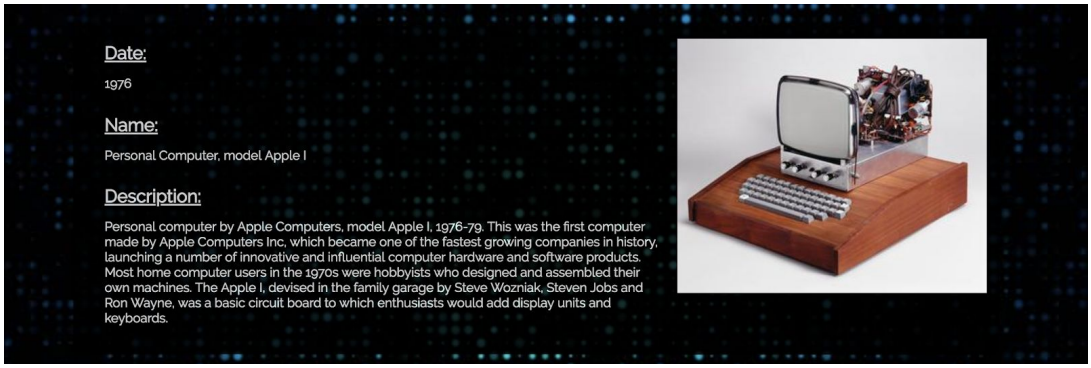
P.16

-Code that uses or implements API

```
const urlArray = [];
const baseURL = 'http://collection.sciencemuseum.org.uk/objects/';
const fixedComputerObjects = ["co62748", "co64128", "co62427","co8359400", "co503
"co8035886", "co8430789", "co8184137", "co8361071"];
const additionalObjects = ["co8362946","co8361832",
"co8361046","co63204","co8194710","co8094235","co8401258","co8361038","co8015289"
8408693","co62349","co60113","co60390","co60127","co62748", "co64128", "co62427",
"co8401352", "co8035886", "co8430789", "co8184137", "co8361071"];

additionalObjects.forEach(function(computer){
  const requestUrl = baseURL + computer;
  urlArray.push(requestUrl);
});

urlArray.forEach(function (url) {
  const requestUrl = new Request (url);
  requestUrl.get(computerAPIRequestComplete);
});
```

```
const Request = function (url) {
  this.url = url;
}

Request.prototype.get = function (callback) {
  const request = new XMLHttpRequest();
  request.open('GET', this.url);
  request.setRequestHeader('accept', 'application/json');
  request.addEventListener('load', function () {
    if(this.status !== 200) return;

    const responseBody = JSON.parse(this.responseText);
    callback(responseBody);
  })
  request.send();
}
```

-API being used in a program



P.17

-bug tracking report

User can add a transaction	Fail	Save a transaction to the db assigning a unique ID	Pass
User can add a category	Fail	Save a category to db assigning a unique ID	Pass
Transaction has a date			Pass
User can search a transaction by date	Fail	Search db for dates that match input date	Pass
User can search for a date that has no transactions	Fail	Add error handling to redirect page to a message that says no transactions for certain date	Pass

P.18

-test code

```
describe('ComputerDates', function () {

    beforeEach(function () {
    });

    it('given a specific id a date is returned', function () {

    });
```

-test code failing

```
ComputerDates
  1) given a specific id a date is returned
  ✓ given another id a second date is returned

ComputerObject
  ✓ should have an id
  ✓ should have a date
  ✓ should have a name
  ✓ should have a first description
  ✓ should have a second description
  ✓ should have an image
  ✓ should have a type


8 passing (9ms)
1 failing

1) ComputerDates
     given a specific id a date is returned:
   ReferenceError: actual is not defined
    at Context.<anonymous> (specs/computer_dates_spec.js:11:28)


npm ERR! Test failed.  See above for more details.
```

-updated test code

```
describe('ComputerDates', function () {

    beforeEach(function () {
    });

    it('given a specific id a date is returned', function () {
        const actual = ComputerDates['co62427'];
        assert.strictEqual(actual, 1940);
    });
```

-test code passing

```
ComputerDates
  ✓ given a specific id a date is returned
  ✓ given another id a second date is returned

ComputerObject
  ✓ should have an id
  ✓ should have a date
  ✓ should have a name
  ✓ should have a first description
  ✓ should have a second description
  ✓ should have an image
  ✓ should have a type


9 passing (7ms)
```