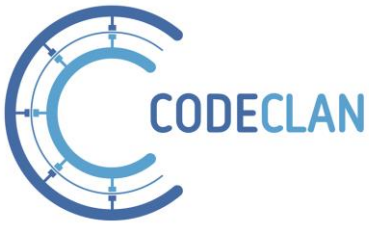


Evidence Gathering Document for SQA Level 8 Professional Developer Award.

This document is designed for you to present your screenshots and diagrams relevant to the PDA and to also give a short description of what you are showing to clarify understanding for the assessor.

Each point that required details the Assessment Criteria (What you have to show) along with a brief description of the kind of things you should be showing.

Please fill in each point with screenshot or diagram and description of what you are showing.

Week 2

Unit	Ref	Evidence	
I&T	I.T.5	Demonstrate the use of an array in a program. Take screenshots of: *An array in a program *A function that uses the array *The result of the function running	
		Description: - **An array of train station stops** - **Unshift function used to add Glasgow Queen St to the beginning of the array** - **The result of the function with Glasgow Queen St in the array**	

Paste Screenshot here

```
stops = [ "Croy", "Cumbernauld", "Falkirk High", "Linlithgow", "Livingston", "Haymarket" ]
```

```
stops.unshift("Glasgow Queen St")
```

```
➜  hash_array_homework git:(master) ✗ ruby array_excercise.rb
["Glasgow Queen St", "Croy", "Cumbernauld", "Falkirk High", "Linlithgow", "Livingston", "Haymarket"]
```

Unit	Ref	Evidence	
I&T	I.T.6	Demonstrate the use of a hash in a program. Take screenshots of: *A hash in a program *A function that uses the hash *The result of the function running	
		Description: - **Hash of a dog in a pet shop array** - **Test for the function to find the pet hash by key name** - **Test that if the name entered is not represented by the name key the function will return nil** - **Function to find the pet hash by the key name** - **Result of tests passing**	

Paste Screenshot here

```ruby
{
  name: "Arthur",
  pet_type: :dog,
  breed: "Husky",
  price: 900,
},
```

```ruby
def  test_find_pet_by_name__returns_pet #(full pet)
  pet = find_pet_by_name(@pet_shop, "Arthur")
  assert_equal("Arthur", pet[:name])
end

def test_find_pet_by_name__returns_nil
  pet = find_pet_by_name(@pet_shop, "Fred")
  assert_nil(pet)
end
```

```ruby
def find_pet_by_name(pet_shop, name)
  for pet in pet_shop[:pets]
    if pet[:name] == name
      return pet
    end
  end
  return nil
end
```

```
➜  pet-shop_start_point git:(master) ✗ ruby specs/pet_shop_spec.rb
Run options: --seed 35210

# Running:

..

Finished in 0.001034s, 1934.2361 runs/s, 1934.2361 assertions/s.

2 runs, 2 assertions, 0 failures, 0 errors, 0 skips
```

Week 3

Unit	Ref	Evidence	
I&T	I.T.3	Demonstrate searching data in a program. Take screenshots of: *Function that searches data *The result of the function running	
		Description:	

Paste Screenshot here

```ruby
def find_song(title)
  @songs.each do |song|
    if song.title == title
      return song
    end
  end
  return nil
end
```

```ruby
def test_find_song_by_title()
  result = @room.find_song(@guest1.fav_song())
  assert_equal(@song2, result)
end

def test_find_song_by_title__false()
  result = @room.find_song("Not a Song")
  assert_nil(result)
end
```

```
➜ weekend_homework git:(master) ✗ ruby specs/room_spec.rb
Run options: --seed 54361

# Running:

..

Finished in 0.001094s, 1828.1536 runs/s, 1828.1536 assertions/s.

2 runs, 2 assertions, 0 failures, 0 errors, 0 skips
```

Unit	Ref	Evidence	
I&T	I.T.4	Demonstrate sorting data in a program. Take screenshots of: *Function that sorts data *The result of the function running	
		Description:	

Paste Screenshot here

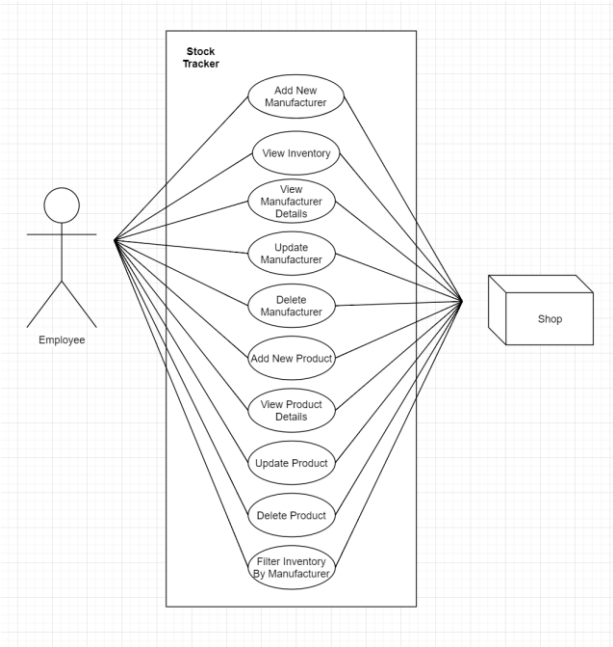
```ruby
numbers = [3, 5, 1, 4]

def sort_numbers(numbers)
  return numbers.sort
end

p sort_numbers(numbers)
```

```
➜ evidence ruby extra.rb
[1, 3, 4, 5]
```

Week 5 and 6

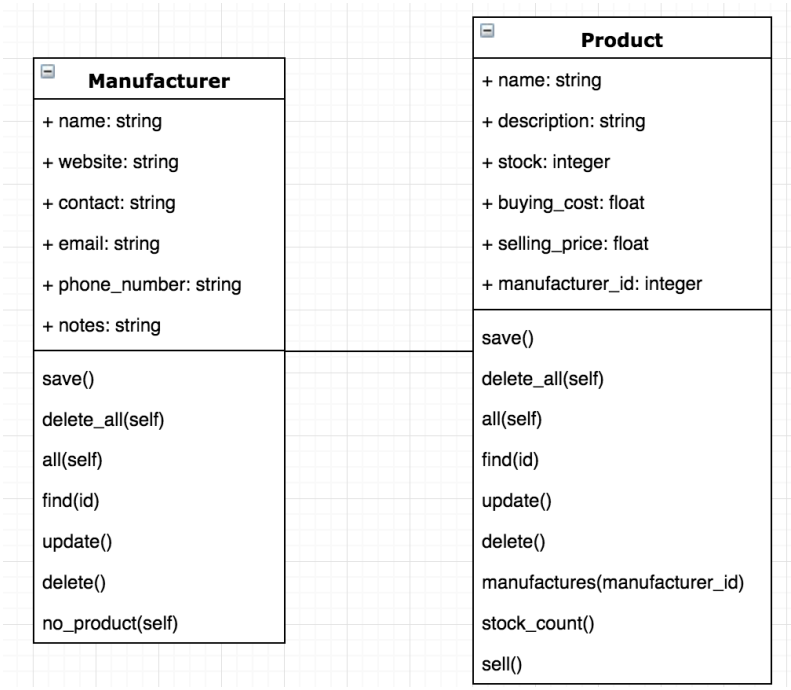
Unit	Ref	Evidence	
A&D	A.D.1	A Use Case Diagram	
		Description: Use Case Diagram showing all the things that an employee can do on the stock tracker in order to interact with the shop.	

Paste Screenshot here



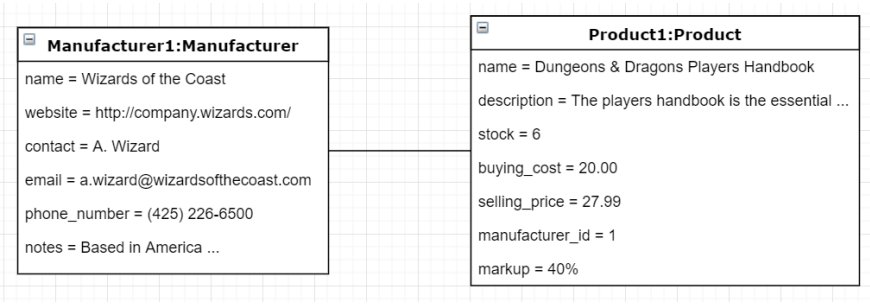
Unit	Ref	Evidence	
A&D	A.D.2	A Class Diagram	
		Description: Class Diagram showing two classes, manufacturer and products with their attributes, attribute types and methods.	

Paste Screenshot here



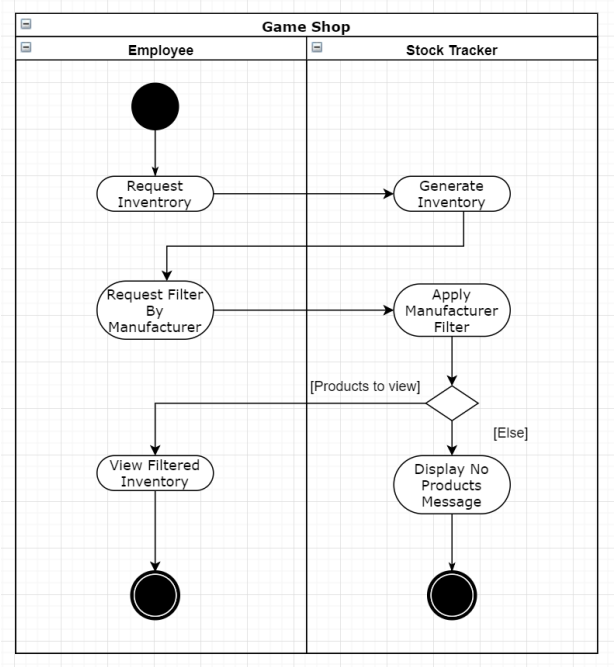
Unit	Ref	Evidence	
A&D	A.D.3	An Object Diagram	
		Description: Object Diagram showing Manufacturer 1 and Product1 with dummy data and their interaction	

Paste Screenshot here



Unit	Ref	Evidence	
A&D	A.D.4	An Activity Diagram	
		Description: An Activity Diagram showing the process that both the employee and stock tracker go through when filtering the inventory including the decision point of whether there are any products to view for that manufacturer	

Paste Screenshot here



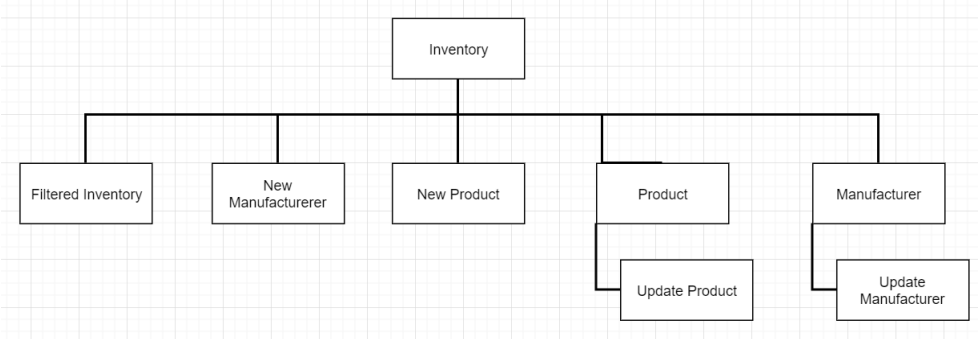
Unit	Ref	Evidence	
A&D	A.D.6	Produce an Implementations Constraints plan detailing the following factors: *Hardware and software platforms *Performance requirements *Persistent storage and transactions *Usability *Budgets *Time	
		Description: Constraint diagram showing the few constraints that were on this project	

Paste Screenshot here

Topic	Possible Effect of Constraint on Product	Solution
Hardware and software platforms	Ruby, PSQL Sanatra. No easy way to have a dynamic front end.	Have a static front end that posts from various user inputs.
Performance requirements	Small shop so there is not a huge amount of data or functionality	Performance should not be a major factor
Persistent storage and transactions	psql was selected as the database for use	suitable for the data being used in this project
Usability	Should be usable for the stock side of a shop, not to be used by customers.	Ensure that planning takes into account the correct users for this software.
Budgets	No budjet	Shouldn't be a problem for this project as there should be no expenses either.
Time	Project to be completed in under a week	Effective planning to ensure that realistic targets are set and use trello to keep track of tasks to do and completed.

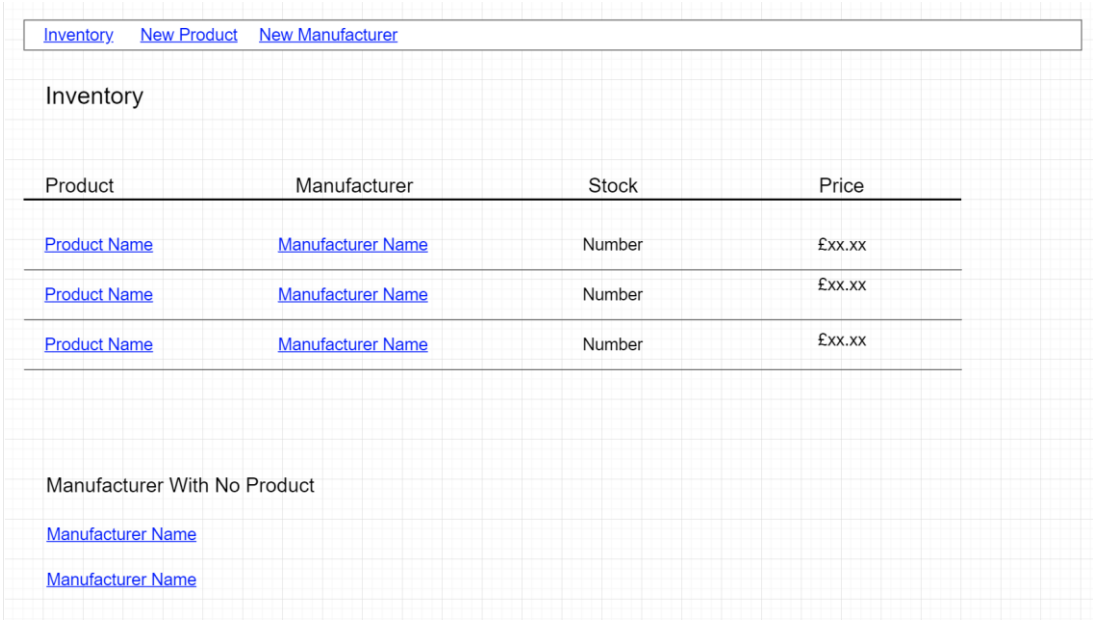
Unit	Ref	Evidence	
P	P.5	User Site Map	
		Description: User site map showing each page that a user can navigate to in a higherachical structure	

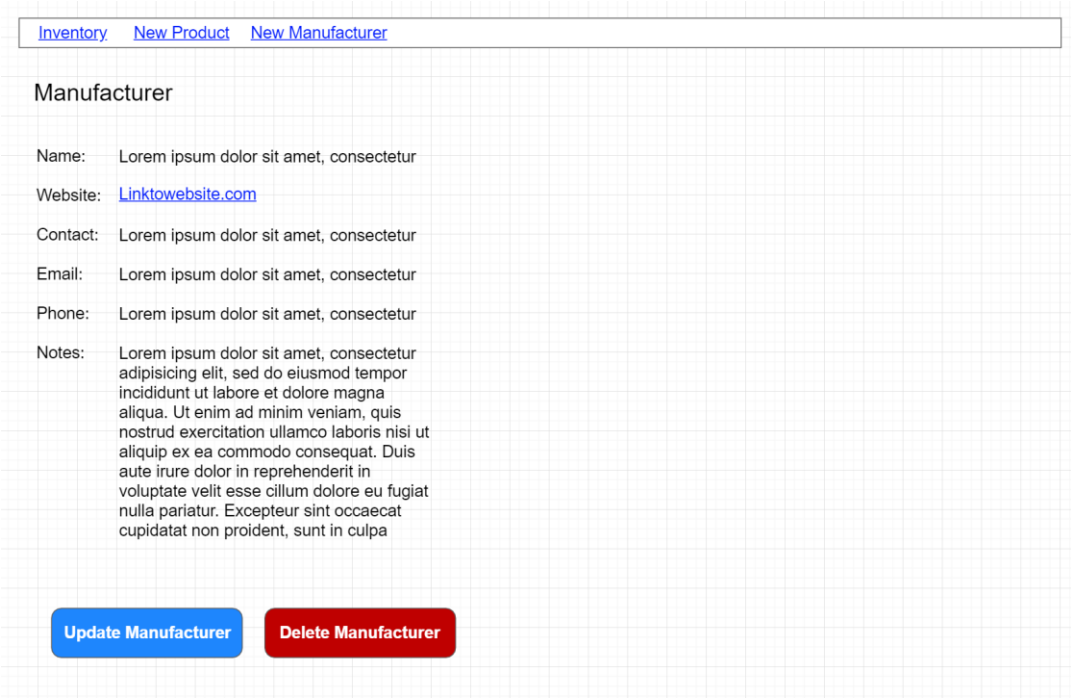
Paste Screenshot here



Unit	Ref	Evidence	
P	P.6	2 Wireframe Diagrams	
		Description: Two wire frames showing the layout of two pages from the site: the Inventory page and an individual manufacturer page	

Paste Screenshot here





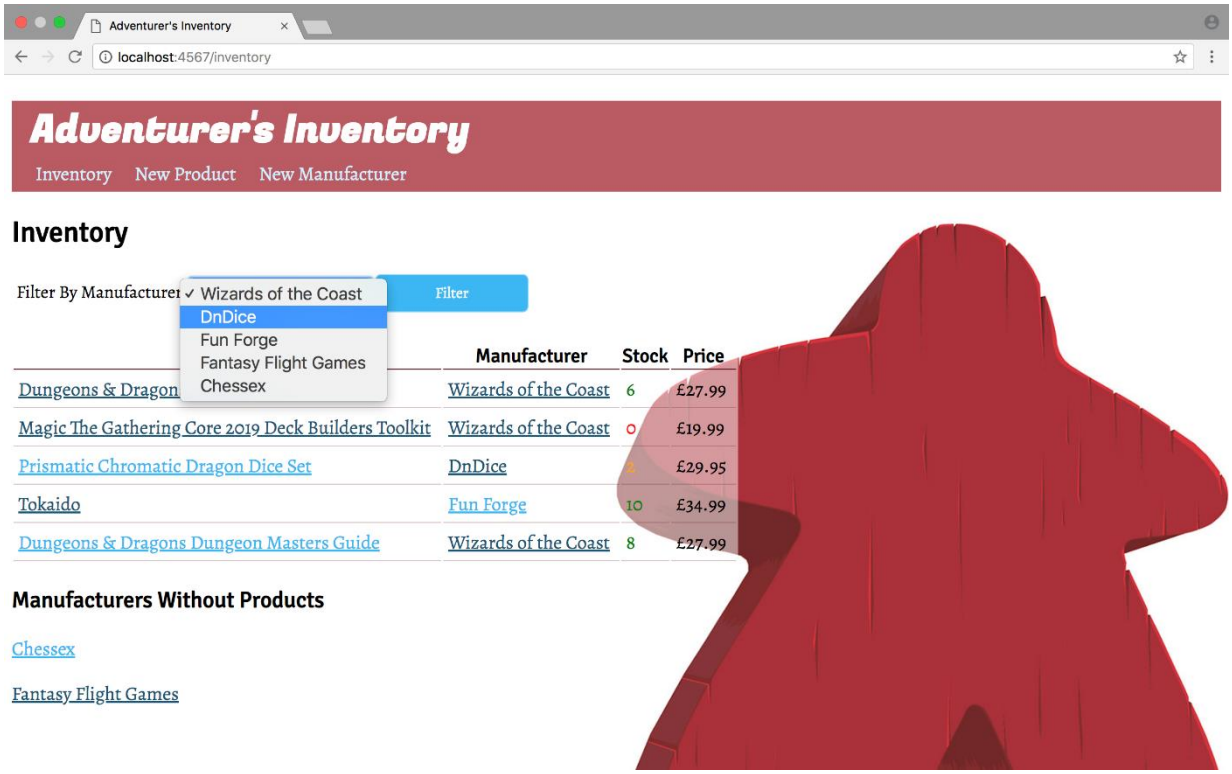
Unit	Ref	Evidence	
P	P.10	Example of Pseudocode used for a method	
		Description: Pseudocode explaining the function which returns an array of manufacturers which have no products associated with them	

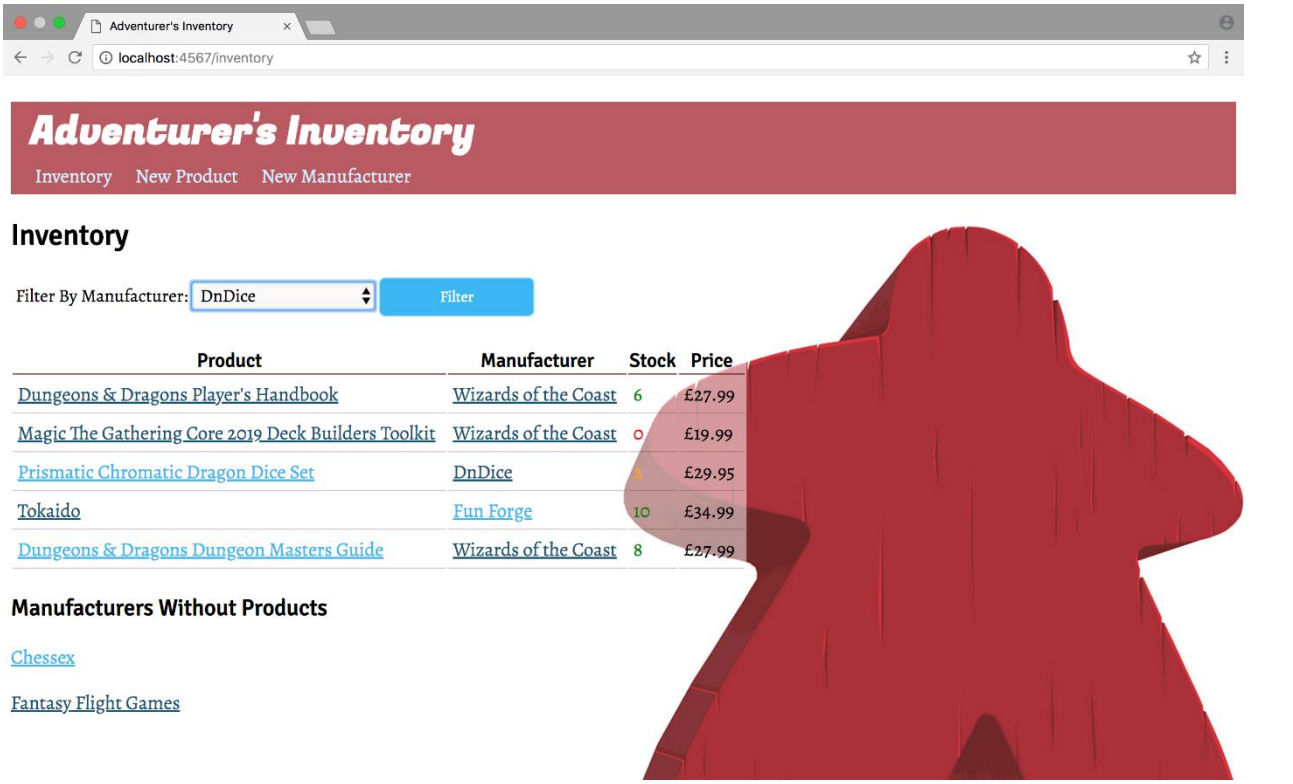
Paste Screenshot here

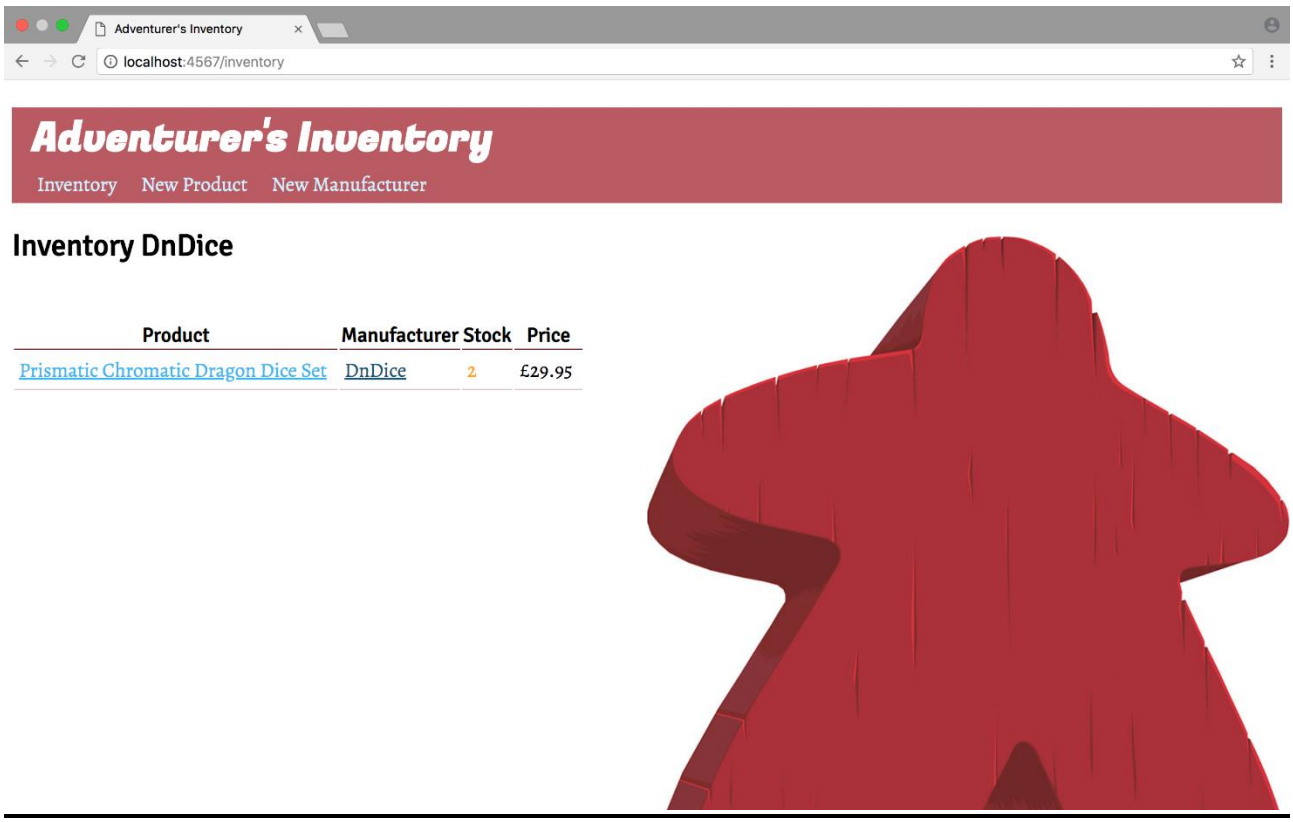
```
# function to find manufacturers with no products and display them in an array
# the function should look in the database and compare the manufacturer and product tables
# the function should return only manufacturers from the database which have no products associated with them
# the function should then make each of these manufacturers returned into new manufacturer objects
# the manufacturer objects should be put into an array
# finally the function should return the manufacturer object array
```

Unit	Ref	Evidence	
P	P.13	Show user input being processed according to design requirements. Take a screenshot of: * The user inputting something into your program * The user input being saved or used in some way	
		Description: User inputting the manufacturer they want to filter by and the filter results	

Paste Screenshot here

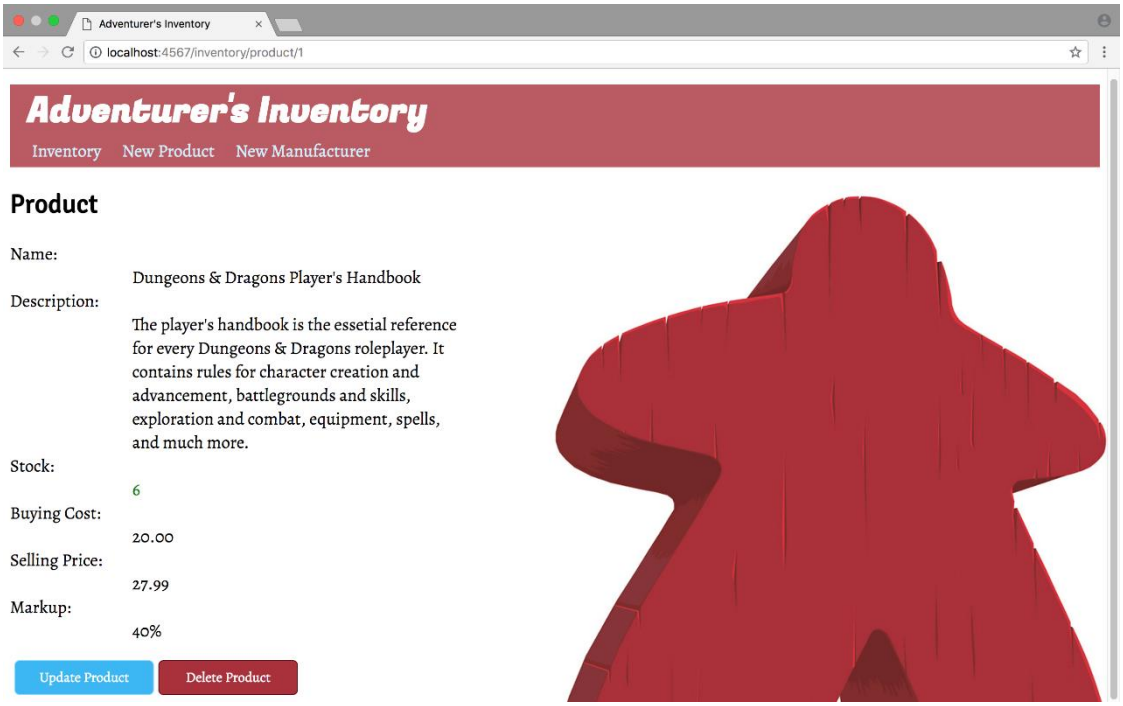


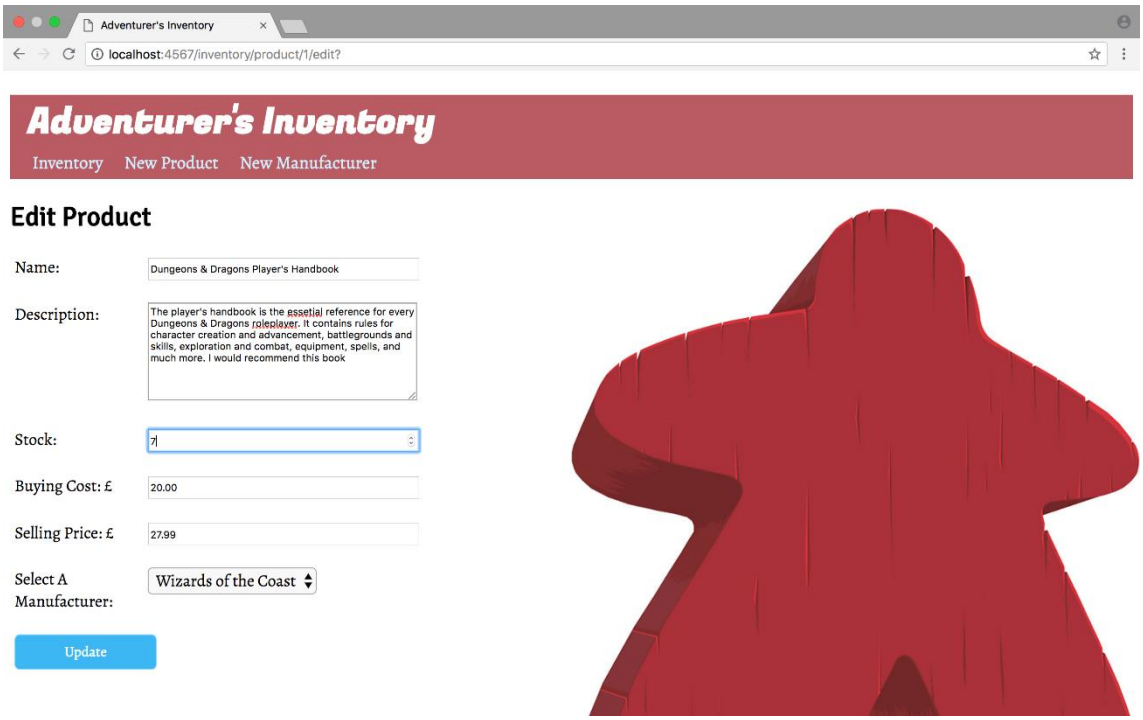

Adventurer's Inventory
localhost:4567/inventory
Adventurer's Inventory
Inventory New Product New Manufacturer
Inventory
Filter By Manufacturer: DnDice
Filter
Product Manufacturer Stock Price
Dungeons & Dragons Player's Handbook Wizards of the Coast 6 £27.99
Magic The Gathering Core 2019 Deck Builders Toolkit Wizards of the Coast 0 £19.99
Prismatic Chromatic Dragon Dice Set DnDice 2 £29.95
Tokaido Fun Forge 10 £34.99
Dungeons & Dragons Dungeon Masters Guide Wizards of the Coast 8 £27.99
Manufacturers Without Products
Chessex
Fantasy Flight Games

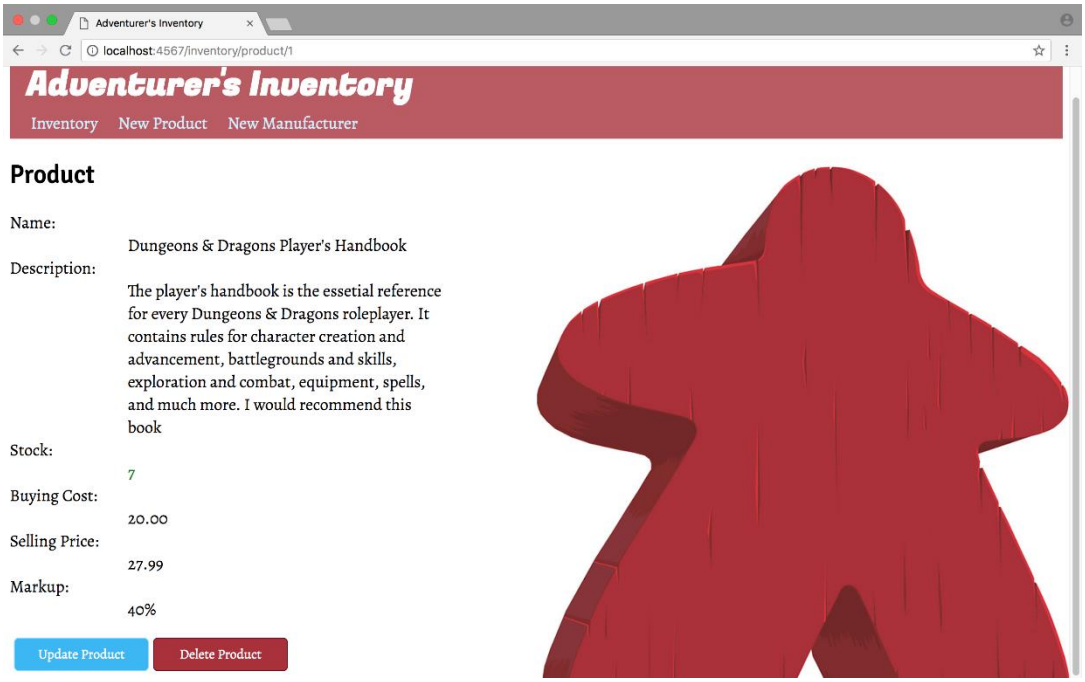

Adventurer's Inventory
localhost:4567/inventory
Adventurer's Inventory
Inventory New Product New Manufacturer
Inventory DnDice
Product Manufacturer Stock Price
Prismatic Chromatic Dragon Dice Set DnDice 2 £29.95

Unit	Ref	Evidence	
P	P.14	Show an interaction with data persistence. Take a screenshot of: * Data being inputted into your program * Confirmation of the data being saved	
		Description: The product page prior to alterations, the data being input into the update page and the product page confirming the updated data has been saved.	

Paste Screenshot here

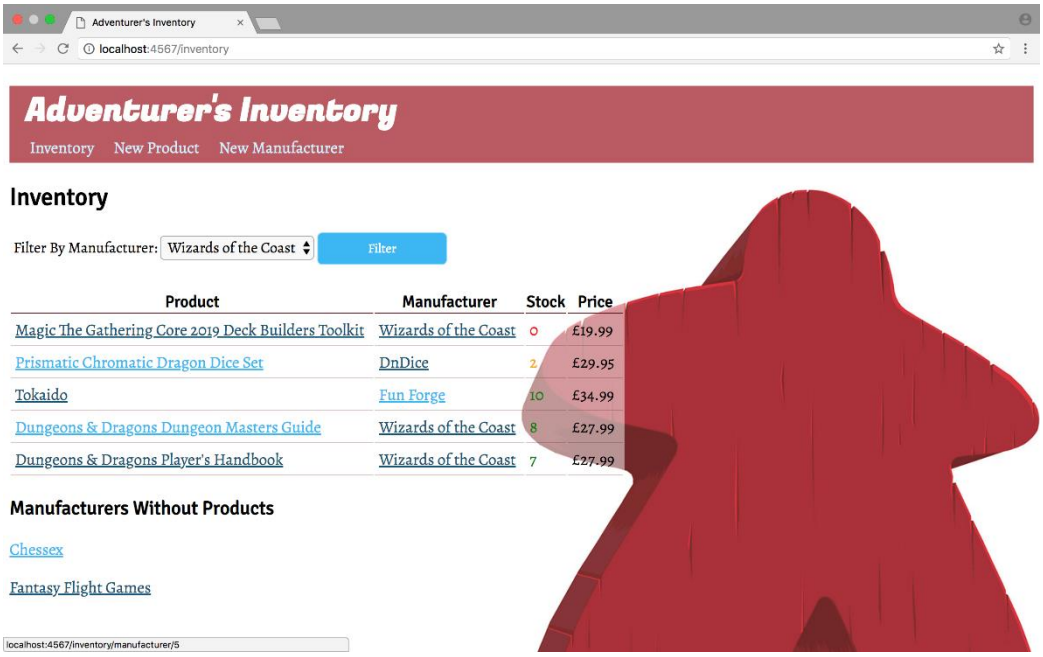






Unit	Ref	Evidence	
P	P.15	Show the correct output of results and feedback to user. Take a screenshot of: * The user requesting information or an action to be performed * The user request being processed correctly and demonstrated in the program	
		Description: The inventory showing the manufacturer to be deleted, the user clicks on the manufacturer bringing up their page, the user clicks the delete button and then we see that the inventory no longer contains that manufacturer	

Paste Screenshot here



Adventurer's Inventory

localhost:4567/inventory/manufacturer/5

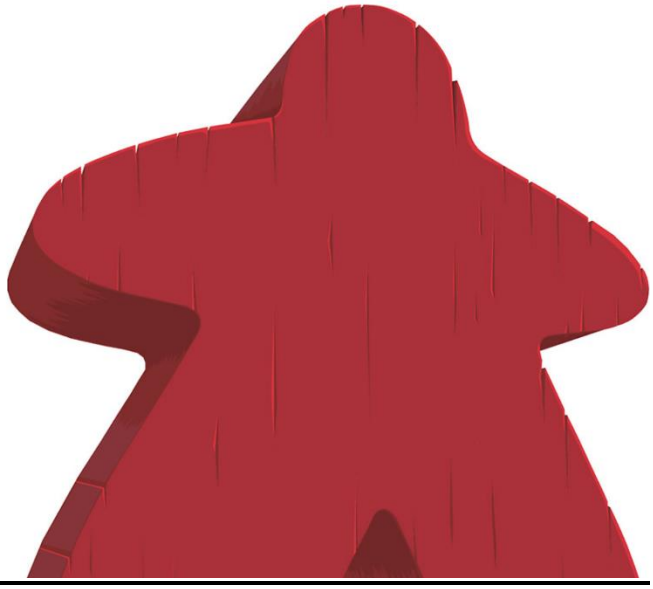
Adventurer's Inventory

Inventory New Product New Manufacturer

Manufacturer

Name:
Chessex
Website:
http://www.chessex.com/
Contact Name:
C.Dicey
Email:
c.dicey@chessex.com
Phone:
0800 000 000
Notes:
Largest dice manufacturer in the UK

Update Manufacturer Delete Manufacturer



Adventurer's Inventory

localhost:4567/inventory

Adventurer's Inventory

Inventory New Product New Manufacturer

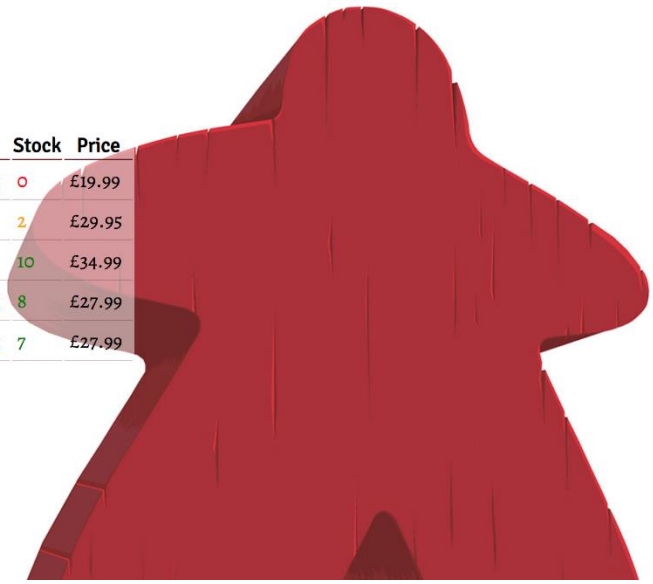
Inventory

Filter By Manufacturer: Wizards of the Coast Filter

Product	Manufacturer	Stock	Price
Magic The Gathering Core 2019 Deck Builders Toolkit	Wizards of the Coast	0	£19.99
Prismatic Chromatic Dragon Dice Set	DnDice	2	£29.95
Tokaido	Fun Forge	10	£34.99
Dungeons & Dragons Dungeon Masters Guide	Wizards of the Coast	8	£27.99
Dungeons & Dragons Player's Handbook	Wizards of the Coast	7	£27.99

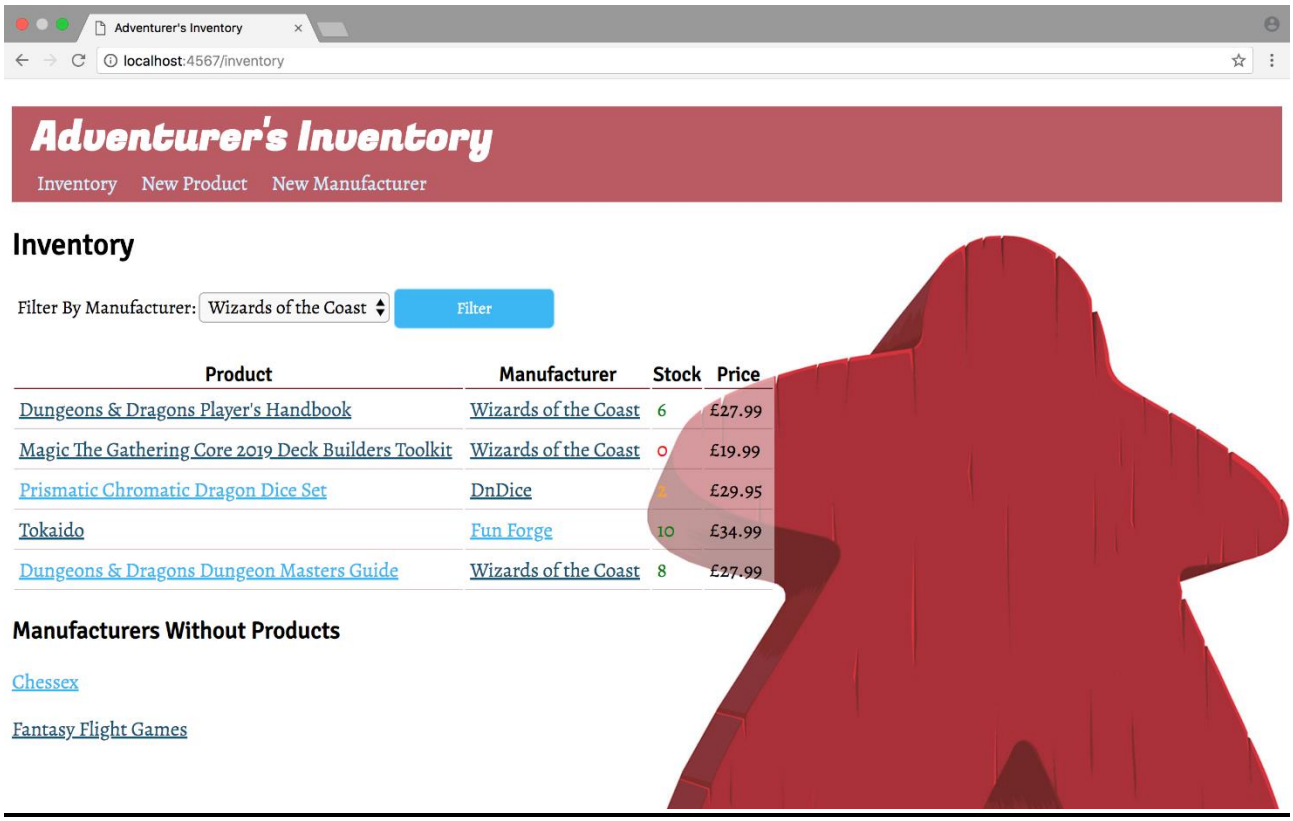
Manufacturers Without Products

Fantasy Flight Games



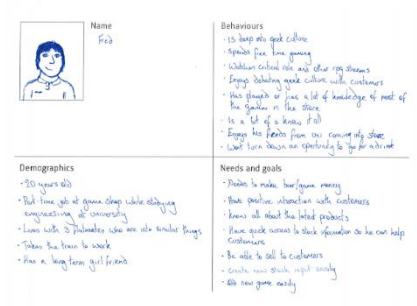
Unit	Ref	Evidence	
P	P.11	Take a screenshot of one of your projects where you have worked alone and attach the Github link.	
		Description: https://github.com/anne-other/game_shop_ruby_project	

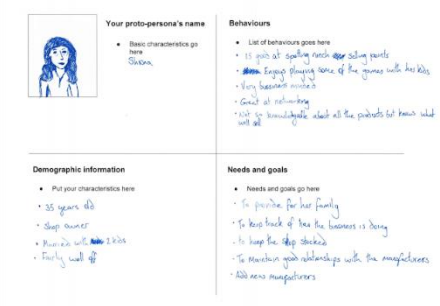
Paste Screenshot here



Unit	Ref	Evidence	
P	P.12	Take screenshots or photos of your planning and the different stages of development to show changes.	
		Description:	

Paste Screenshot here





As a...	I want to...	So that...
Geeek culture fan	Know all about the games in store	I can have positive interactions with customers
Student	be able to sell to customers	I can have beer and game money
Part time employee	have quick access to stock information	I can serve customers
Part time employee	have an easy way to input new stock	my job is made easier
Person who games socially	know all about the latest products	I can show off to my friends
Employee	find the price of products quickly	I can serve customers
A keen gamer	be able to update games	The information is correct

As a...	I want to...	So that...
Mum	understand the games my shop sells a little	I don't give my kids something inapropriate
Shop owner	keep track of how much stock I have	I can order more stock where required
Bussiness owner	keep track of which manufacturer's products we have	I can maintain good relationships with those manufacturers
Provider for my family	keep track of the buying and selling price of games	to ensure my bussiness is making money
Good networker	be able to add or delete manufacturers	My shop is up to date with the changing relationships with different manufacturers
Someone with an eye for neich markets	be able to add or delete a game	My shop is selling the most popular games

	Step 1	Step 2
User action(s)	Fred goes onto the inventory and scans down the stock column to see what the stock levels are like	Fred sees whether they have stock of a particular game
System response	Database of all games, inventory shows all items including a method to show the number of stock	A method to show on the inventory if something is out of stock

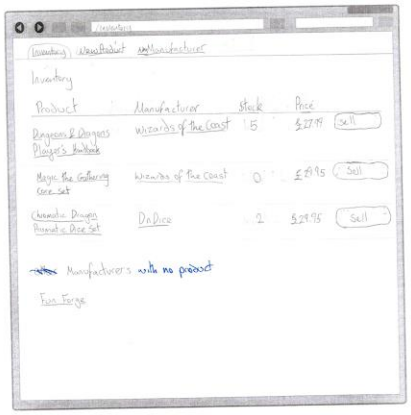
	Step 1	Step 2	Step 3
User action(s)	Fred goes onto the stock site to find a game he wants to find information on	Fred clicks on a game he is interested in	Fred reads the discription of the game
System response	Database of all games, inventory shows all items	Links available in the index which will take the user to find further information about the game	Method to find one instance of a game from the stock database and displays more information about that game including a game discription

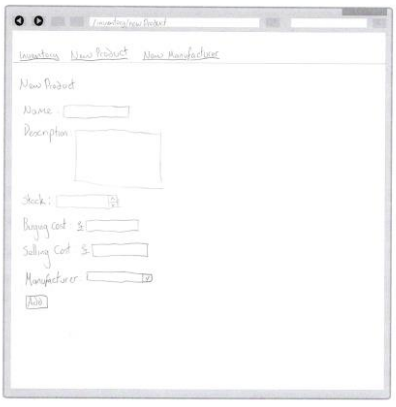
	Step 1	Step 2	Step 3	Step 4	Step 5
User action(s)	Fred goes onto the inventory and finds game he wants to update	Fred clicks on the game he wants to edit	Fred finds that the form is prepopulated with the game information and edits any appropriate sections	Fred clicks a button to submit the changes	Fred is returned to the inventory page
System response	Database of all games, inventory shows all items and manufacturers	Link on the inventory for each game which takes the user to the indevidual game page	Prepopulate the form with values from the database. Form that gets the information required to save the changes to the database table	Post method to give the information from the form to the database	Return to inventory page

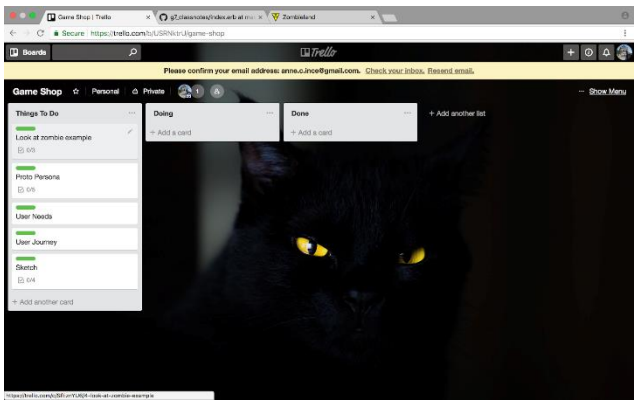
	Step 1	Step 2	Step 3
User action(s)	Shiona goes onto the inventory and looks at the manufacturer column	Shiona clicks on a manufacturer to find out the details associated with that manufacturor	Shiona will look at the information on the indevidual manufacturers page
System response	Database of all manufacturers, inventory shows all manufacturors in a column next to each game	Inventory table should include a link for each manufacturor which will take you to an individual manufacturor table	Database of manufacturers will desplay all relevent information for one particular manufacturer on this page

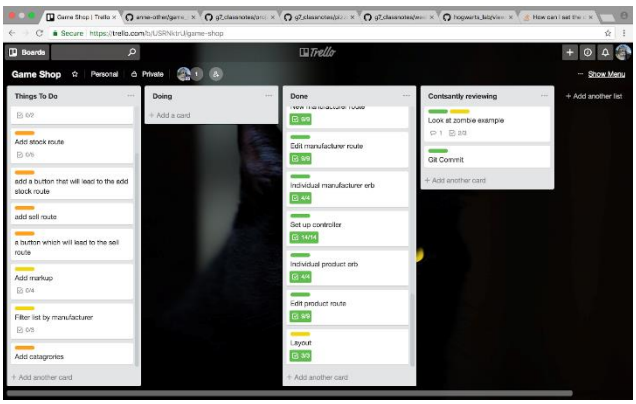
	Step 1	Step 2	Step 3	Step 4
User action(s)	Shona goes onto the inventory and finds the appropriate manufacturer	Shiona clicks on the manufacturer she wants to delete	Shiona clicks on a button to delete the manufacturer	Shiona is returned to the inventory page where manufacturer will no longer be present
System response	Database of all games, inventory shows all items and manufacturers	Link on the inventory for each manufacutre which takes the user to the indevidual manufacturer page	Button calls delete function on the database, ensure that the database has a cascade on delete for the games so that they are removed at the same time	Return to inventory page

	Step 1	Step 2	Step 3	Step 4
User action(s)	Shona goes onto the inventory and finds the option at the top of the page to add a new manufacturer	Shiona fills out the form to add a new manufacturer	Shiona clicks a button to submit the new manufacturer	Shiona is returned to the inventory page where the new manufacturer will be desplayed
System response	Database of all games, inventory shows all items and manufacturers has a link or button to take the user to a new manufacturer input form	Form that gets the information required to save a new manufacturer to the database table	Post method to give the information from the form to the database	Return to inventory page









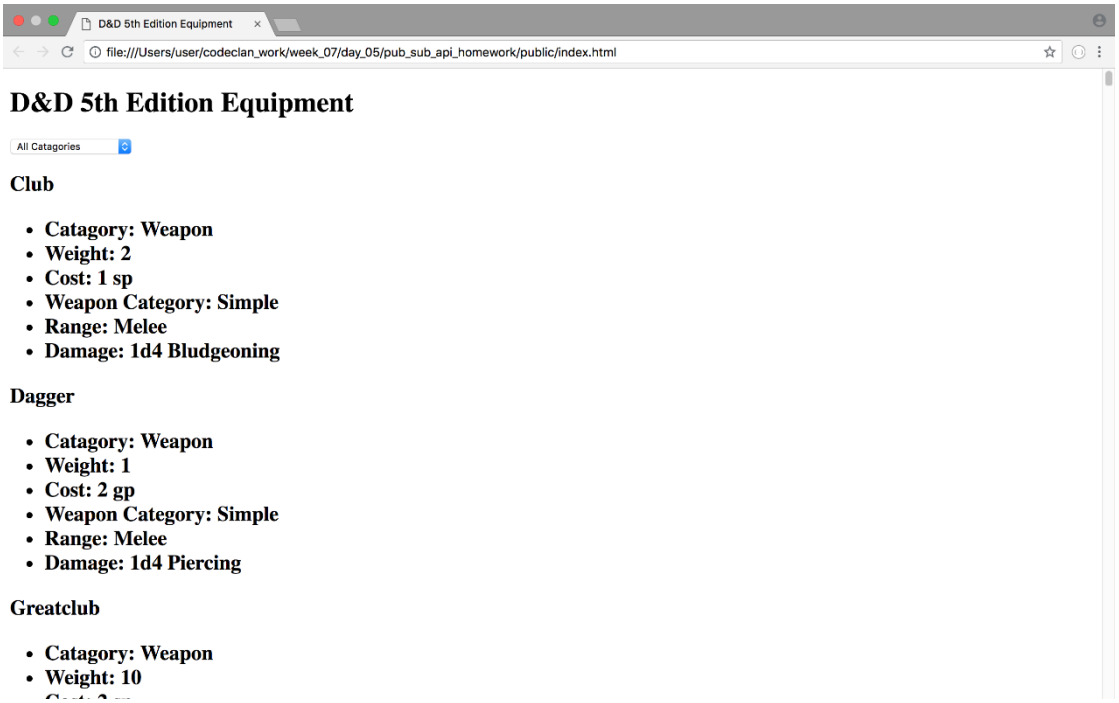
Week 7

Unit	Ref	Evidence	
P	P.16	Show an API being used within your program. Take a screenshot of: * The code that uses or implements the API * The API being used by the program whilst running	
		Description: The get equipment function passes the url of the API into the request function which uses promises and fetch to return the data about the equipment from the API, the get equipment function then publishes the data from the API to the view where it is rendered into the browser.	

Paste Screenshot here

```
Equipment.prototype.getEquipment = function () {
  const request = new Request("http://www.dnd5eapi.co/api/equipment")
  request.get().then((data) => {
    this.equipment = data.results;
    PubSub.publish('Equipment:equipment-data-loaded', this.equipment);
  }).catch((error) => {
    console.error(error);
  })
};
```

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

Request.prototype.get = function () {
  return fetch(this.url)
  .then(response => response.json());
};

module.exports = Request;
```



Unit	Ref	Evidence	
P	P.18	Demonstrate testing in your program. Take screenshots of: * Example of test code * The test code failing to pass * Example of the test code once errors have been corrected * The test code passing	
		Description: Test fails because highest card has not been defined for self, after making it a self method the test passes.	

Paste Screenshot here

```
def test_highest_card()
  result =
  CardGame.highest_card(@card1,
   @card2)
  assert_equal(@card1, result)
end
```

```
➜ pda_static_and_dynamic_testing_tasks git:(ma
ster) ✗ ruby specs/card_spec.rb
Run options: --seed 54971

# Running:

E

Finished in 0.001124s, 889.6797 runs/s, 0.0000
assertions/s.

  1) Error:
CardsTest#test_highest_card:
NoMethodError: undefined method `highest_card'
for CardGame:Class
    specs/card_spec.rb:25:in `test_highest_card
'

1 runs, 0 assertions, 0 failures, 1 errors, 0 s
kips
```

```ruby
def self.highest_card(card1, card2)
  if card1.value > card2.value
    return card1
  else
    card2
  end
end
```

```
[➜  pda_static_and_dynamic_testing_tasks git:(master) ✗ ruby specs/card_spec.rb
Run options: --seed 46341

# Running:

.

Finished in 0.000896s, 1116.0714 runs/s, 1116.0714 assertions/s.

1 runs, 1 assertions, 0 failures, 0 errors, 0 skips
```

Week 9

Unit	Ref	Evidence	
P	P.1	Take a screenshot of the contributor's page on Github from your group project to show the team you worked with.	
		Description: Contributors to the project from git hub	

Paste Screenshot here

Unit	Ref	Evidence	
P	P.2	Take a screenshot of the project brief from your group project.	
		Description: Project brief	

Paste Screenshot here

Educational App

The BBC are looking to improve their online offering of educational content by developing some interactive browser applications that display information in a fun and interesting way. Your task is to make an a Minimum Viable Product or prototype 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.

MVP

A user should be able to:

- view some educational content on a particular topic
- be able to interact with the page to move through different sections of content

Example Extensions

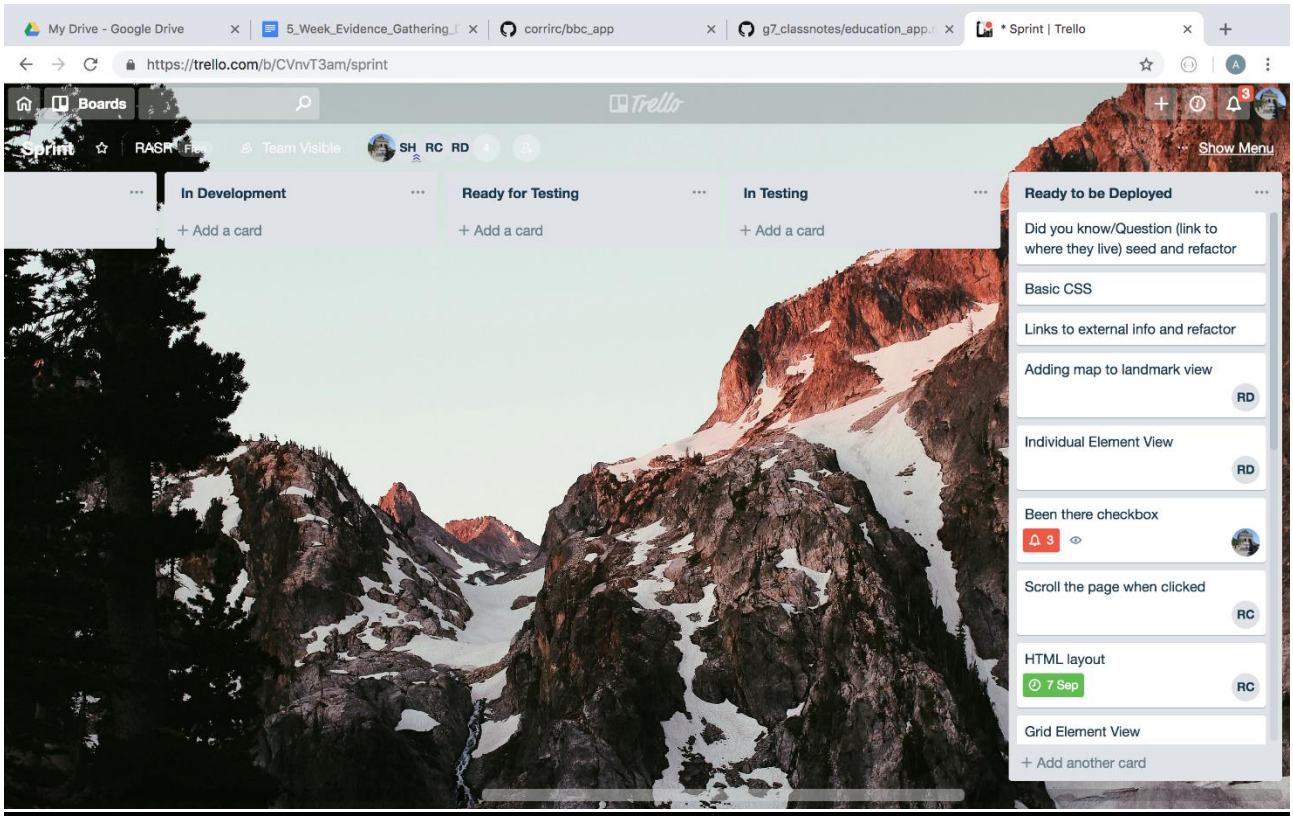
- Use an API to bring in content or a database to store information.
- Use charts or maps to display your information to the page.

API, Libraries, Resources

- https://www.highcharts.com/ HighCharts is an open-source library for rendering responsive charts.
- https://leafletjs.com/ Leaflet is an open-source library for rendering maps and map functionality.

Unit	Ref	Evidence	
P	P.3	Provide a screenshot of the planning you completed during your group project, e.g. Trello MOSCOW board.	
		Description: Our group trello board on completion	

Paste Screenshot here



Unit	Ref	Evidence	
P	P.4	Write an acceptance criteria and test plan.	

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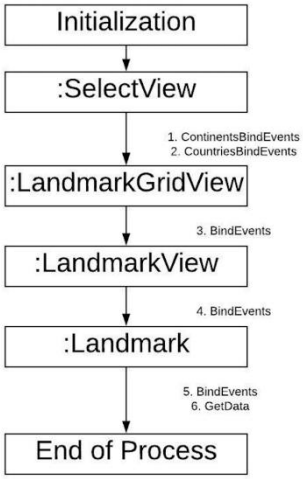
Acceptance Criteria

Acceptance Criteria	Expected Result/Output	Pass / Fail
Student is able to access a list of all landmarks	A list of all landmarks is displayed when URL is accessed	**Pass**
A student can click on a landmark to display all of its information	When student clicks, a view is populated with all the landmark information	**Pass**
Extensions		
A student can click on a link inside the landmark view to access external webpage about the landmark	When student clicks the "Get More Information" button, they are taken to an external URL (if landmark has its own page, otherwise a National Geographic or Lonely planet Link)	**Pass**
A student can mark a landmark as visited	Student can ~~check a box~~ toggle a switch to mark a landmark as one they have visited	**Pass**
Student can view a map of landmark location	When student clicks, a map is included in the landmark view as part of the information	**Pass**
A student can filter landmarks by set criteria	Students can pull down a list, which will be populated with information from seeds - e.g. countries, etc	**Pass**

Unit	Ref	Evidence	
P	P.7	Produce two system interaction diagrams (sequence and/or collaboration diagrams).	
		Description: Collaboration diagram	

Paste Screenshot here

Collaboration diagram of a BBC educational landmark app



Unit	Ref	Evidence	
P	P.8	Produce two object diagrams.	
		Description:	

Paste Screenshot here

Unit	Ref	Evidence	
P	P.17	Produce a bug tracking report	
		Description: bug tracking report	

Paste Screenshot here

Bug Tracking Report

Issue		Solution	Pass/ Fail
Database can load seeds	Fail	Fix syntax errors in seeds	Pass
Student can click on a landmark and page will scroll down to the information.	Fail	Fix placement of scroll method within the code to allow content to load fully before scroll occurs.	Pass
Student can click on link within landmark view to be taken to an external website.			Pass
Toggle switch is displayed on the grid item view for student to interact with	Fail	Added missing line of code in CSS file	Pass
Toggle switch will update the database with changes (true or false) as to whether student has been to the landmark	Fail	Fixed code so that it was updating a single parameter within the database rather than the whole object.	Pass
Landmark view will load map to show location of the selected landmark While it worked for some landmarks, it did not work for all (as bringing back local places "Sphinx Medical" or some not even found)	Fail	Add additional parameters to the method to get name, location and continent of landmark (Future: Add lat/lng to seeds?)	Pass

Week 12

Unit	Ref	Evidence	
I&T	I.T.7	The use of Polymorphism in a program and what it is doing.	
		Description:	

Paste Screenshot here

Unit	Ref	Evidence	
A&D	A.D.5	An Inheritance Diagram	
		Description:	

Paste Screenshot here

Unit	Ref	Evidence	
I&T	I.T.1	The use of Encapsulation in a program and what it is doing.	
		Description:	

Paste Screenshot here

Unit	Ref	Evidence	
I&T	I.T.2	Take a screenshot of the use of Inheritance in a program. Take screenshots of: *A Class *A Class that inherits from the previous class *An Object in the inherited class *A Method that uses the information inherited from another class.	
		Description:	

Paste Screenshot here

Unit	Ref	Evidence	
P	P.9	Select two algorithms you have written (NOT the group project). Take a screenshot of each and write a short statement on why you have chosen to use those algorithms.	
		Description:	

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