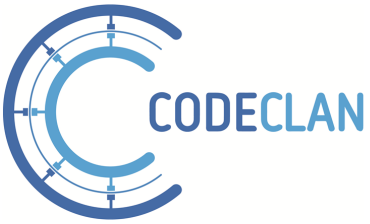


Evidence Gathering
Level 8 Professional

Document for SQA
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: The guest array holds guest objects, check_in_guest adds a guest to the Guest array. The final screenshot the result of the test running.	

```ruby
class Room

  attr_reader :name, :capacity
  attr_accessor :guests, :songs

  def initialize(name, capacity)
    @name = name
    @capacity = capacity
    @guests = []
    @songs = []
  end
```

Capture of my function that utilises ‘Guest_List' array.

```ruby
  def check_in_guest(guest)
    room = get_room_with_space()
    room.guests.push(guest)
    return room
  end

  def check_out_guest(guest, room)
    room.guests.delete(guest)
  end
```

Print out result of check_inGuest screenshot result with print

Result of my function 'check_out_guest' running passing in the array 'Guest_List' as a parameter.

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: wallets is a hash that stores peoples amount of money. get_first_key returns the first key in the hash. The final screenshot is the result of the test running.	

Hash within my program

```ruby
def test_get_first_key
  # arrange
  wallets = {
    "Alice" => 12,
    "Bob"  => 10,
    "Charlie"  => 1356,
    "Dave" => 1
  }
  # act
  result = get_first_key( wallets )
  # assert
  assert_equal( 'Alice', result )
end

```

Hash being used in a function

```ruby
# get first key -
def get_first_key(hash_table)
  return hash_table.keys[0]
end
```

Result of using hash within my function

```
➜ start_point 2 ruby specs/my_functions_spec.rb
Run options: --seed 62703

# Running:

.....

Finished in 0.001184s, 4222.9740 runs/s, 4222.9740 assertions/s.

5 runs, 5 assertions, 0 failures, 0 errors, 0 skips
➜ start_point 2
```

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: has_song uses .find to find a specific song name from within @songs. The final screenshot is the result of the test running, One for finding song and one for not finding song.	

```ruby
24  def has_song(song_name)
25    song = @songs.find{|song| song.title == song_name }
26    # binding.pry
27    if(song == nil)
28      return false
29    end
30    return true
31  end
32
```

```
[➜ Karaoke git:(master) ✗ ruby specs/room_spec.rb
Run options: --seed 5404

# Running:

.Song found...No Song.

Finished in 0.001114s, 4488.3299 runs/s, 4488.3299 assertions/s.

5 runs, 5 assertions, 0 failures, 0 errors, 0 skips
➜ Karaoke git:(master) ✗
```

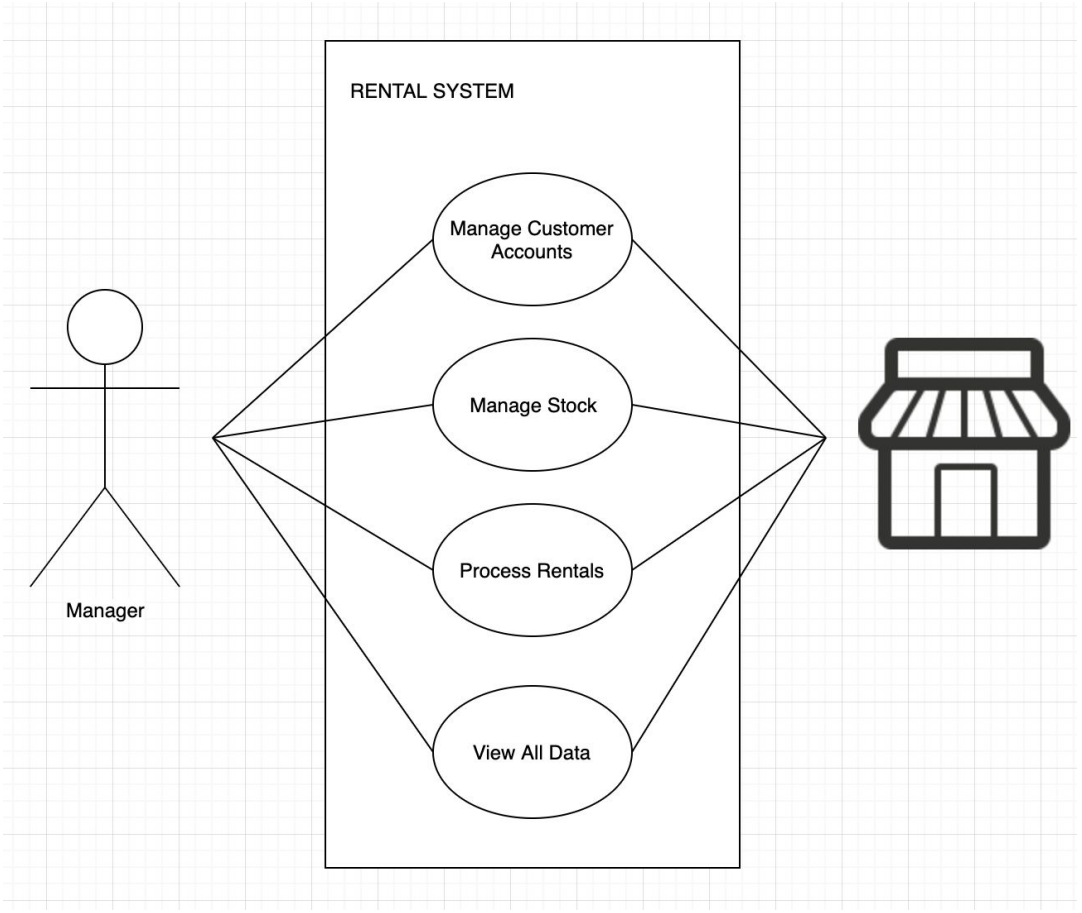
Unit	Ref	Evidence	
I&T	I.T.4	Demonstrate sorting data in a program. Take screenshots of: *Function that sorts data *The result of the function running	
		Description: most_popular_film orders the films by popularity then returns the most popular one.	

```ruby
def self.most_popular_film
  sql = "SELECT film_id, COUNT(*) FROM tickets GROUP BY film_id ORDER BY count DESC LIMIT 1;"
  result = SqlRunner.run(sql)[0]

  sql2 = "SELECT * FROM films WHERE id = $1"
  values = [result["film_id"]]
  result2 = SqlRunner.run(sql2, values).first
  # binding.pry
  return Film.new(result2)
end
```

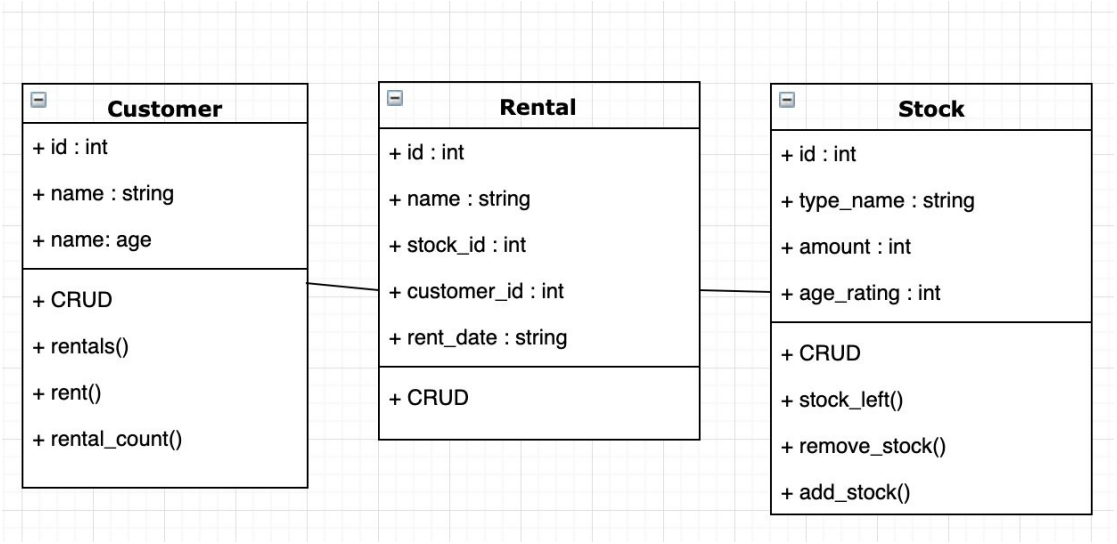
```
[➜  weekend_homework ruby code_clan_cinema/console.rb
{"id"=>"3", "title"=>"Blade Runner", "price"=>"15", "tickets_left"=>"3"}

From: /Users/user/codeclan_work/week_03/weekend_homework/code_clan_cinema/console.rb @ line 69 :

    64: # customer1.delete
    65: # ticket1.delete
    66:
    67: binding.pry
    68:
 => 69: nil

[1] pry(main)>
```

Week 5 and 6

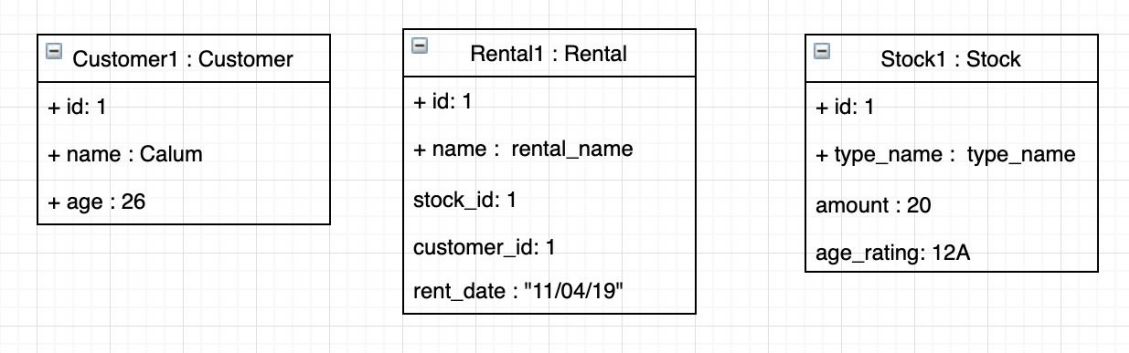
Unit	Ref	Evidence	
A&D	A.D.1	A Use Case Diagram	
		Description: This is a use case diagram for the rental stock control system.	



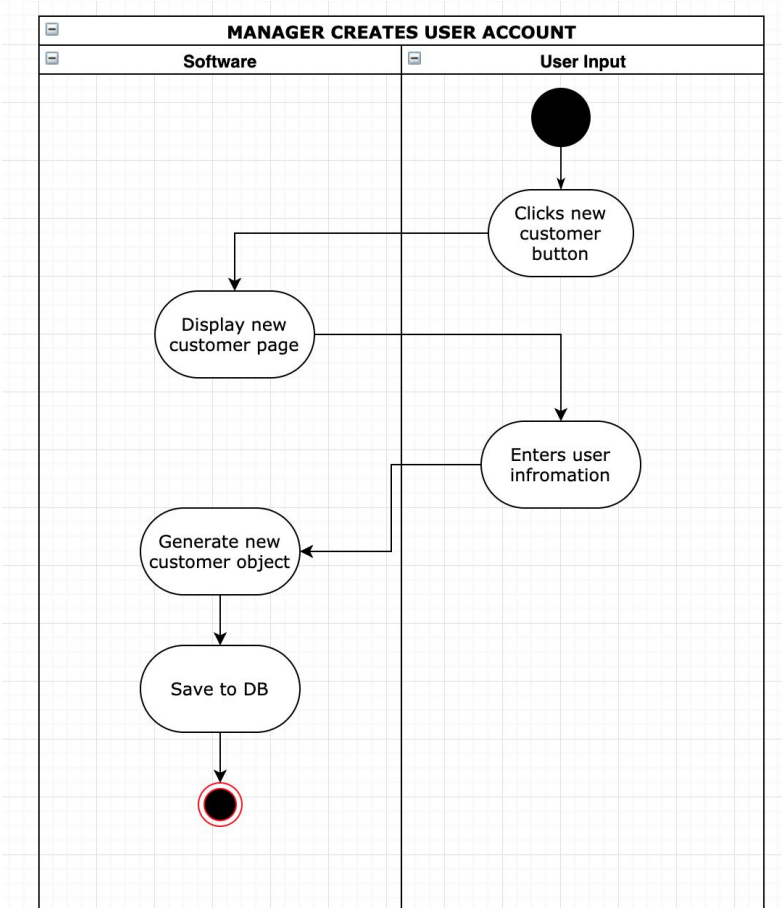
Unit	Ref	Evidence	
A&D	A.D.2	A Class Diagram	
		Description: Customer, Rental and Stock classes for the rental system	



Unit	Ref	Evidence	
A&D	A.D.3	An Object Diagram	
		Description: Object diagrams for Customer, Rental and Stock	



Unit	Ref	Evidence	
A&D	A.D.4	An Activity Diagram	
		Description: Activity diagram showing how the manager would create a new customer.	

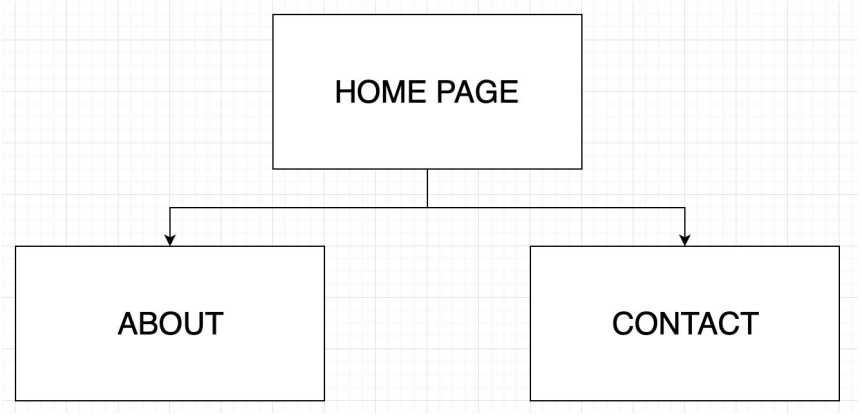


Unit	Ref	Evidence	
A&D	A.D.6	Produce an Implementations Constraints plan detailing the following factors: *Hardware and software platforms *Performance requirements *Persistent storage and transactions *Usability *Budgets *Time	
		Description:	

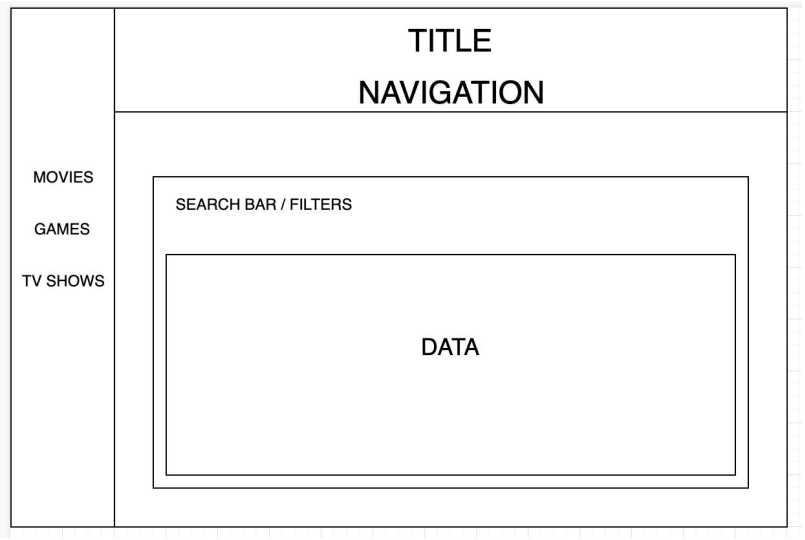
Type	**Implementation Constraints**	**Solution**
Hardware / Software	Has to run in a web browser on any computer	Use Ruby, Sinatran and PostgreSQL
Performance Requirements	App must run smoothly	Keep functionality simple

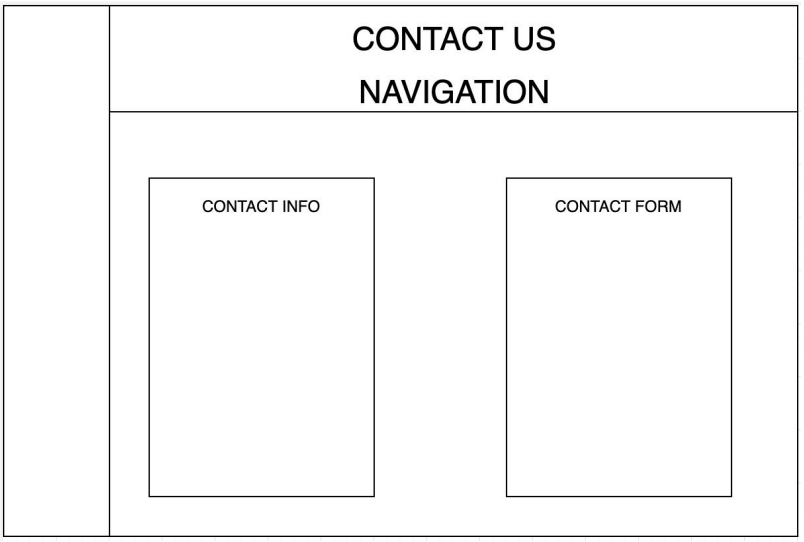
Persistent Storage and Transactions		
Usability	Must be clear and easy to use	Use simple page layout and clear buttons/text
Budget	None	
Time	1 Week	Project scope will be small

Unit	Ref	Evidence	
P	P.5	User Site Map	
		Description: Site map of rental shop project	



Unit	Ref	Evidence	
P	P.6	2 Wireframe Diagrams	
		Description: First diagram is a wireframe of the main page, Second diagram is of the contact us page	



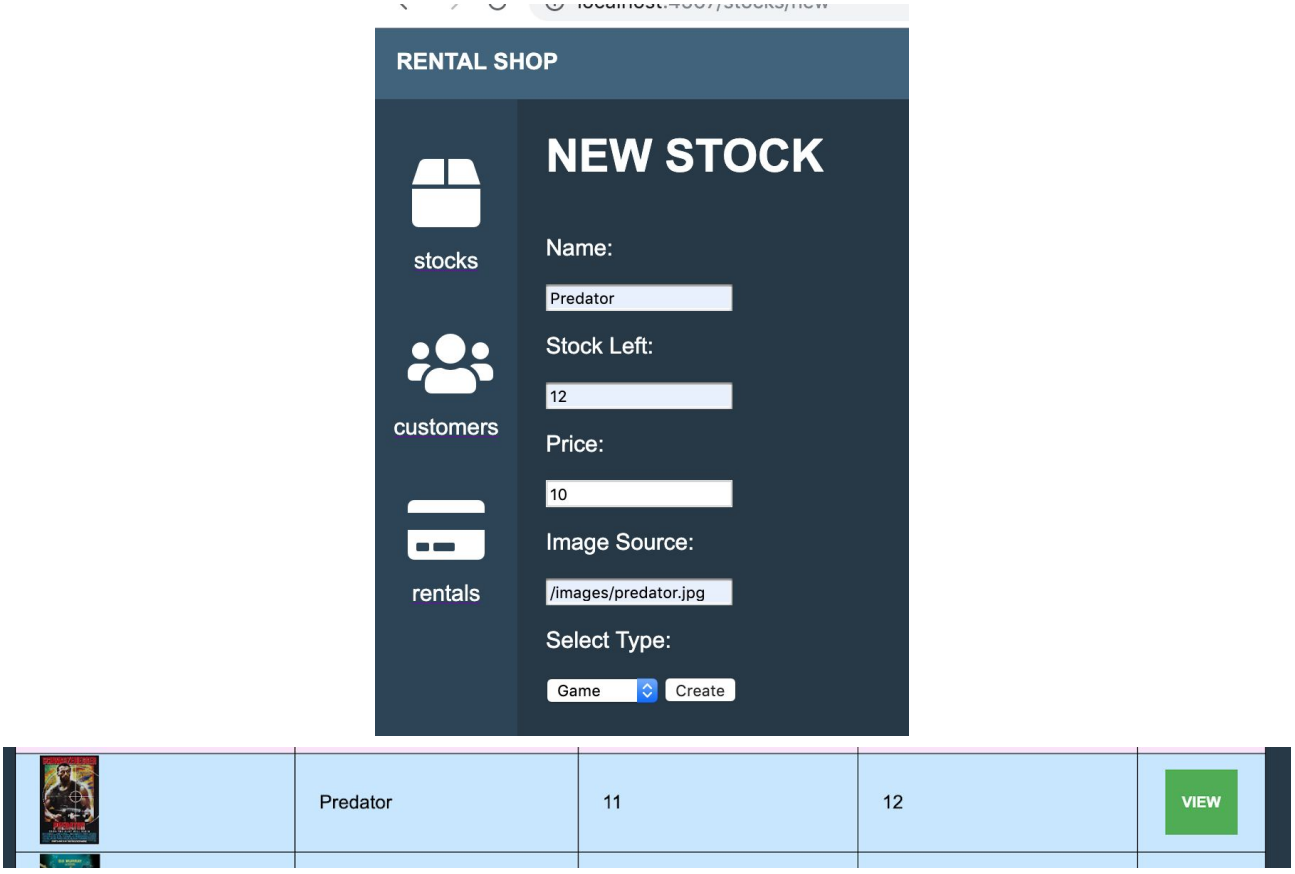


Unit	Ref	Evidence	
P	P.10	Example of Pseudocode used for a method	
		Description:	

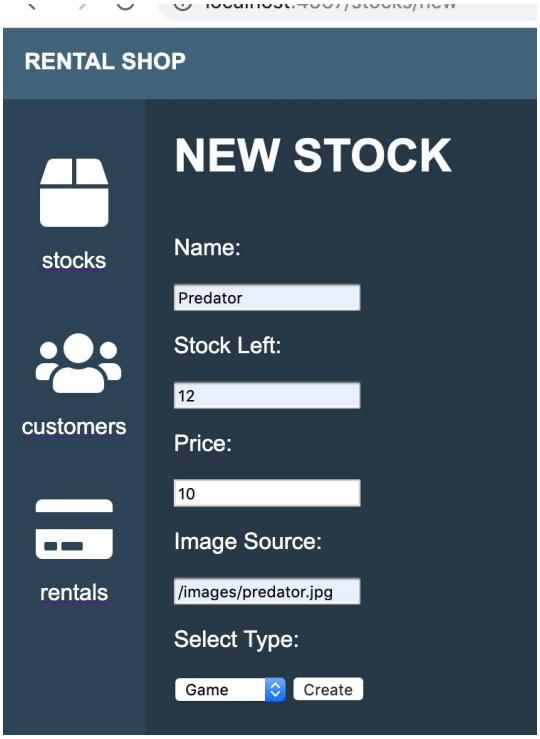
Connect to the database
Prepare the sql statement
Run the prepared statement
close database
Return results

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: The user inputs information for a new film being added to the stock system. The second screenshot shows the added stock item.	

Paste Screenshot here

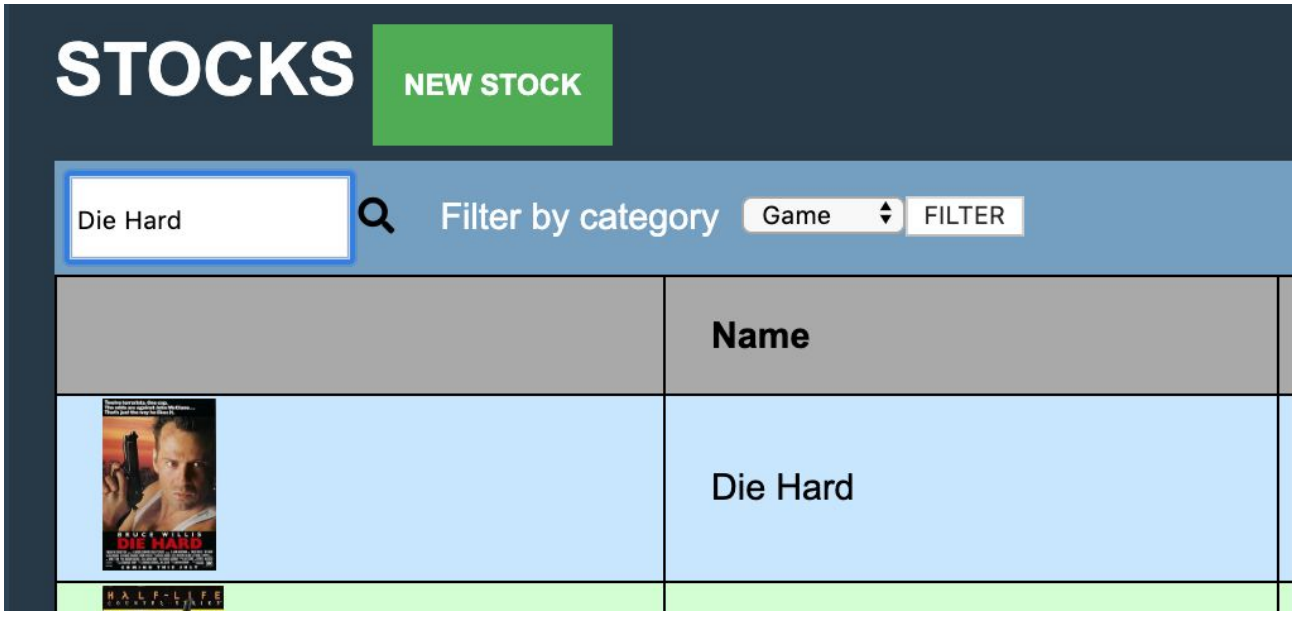


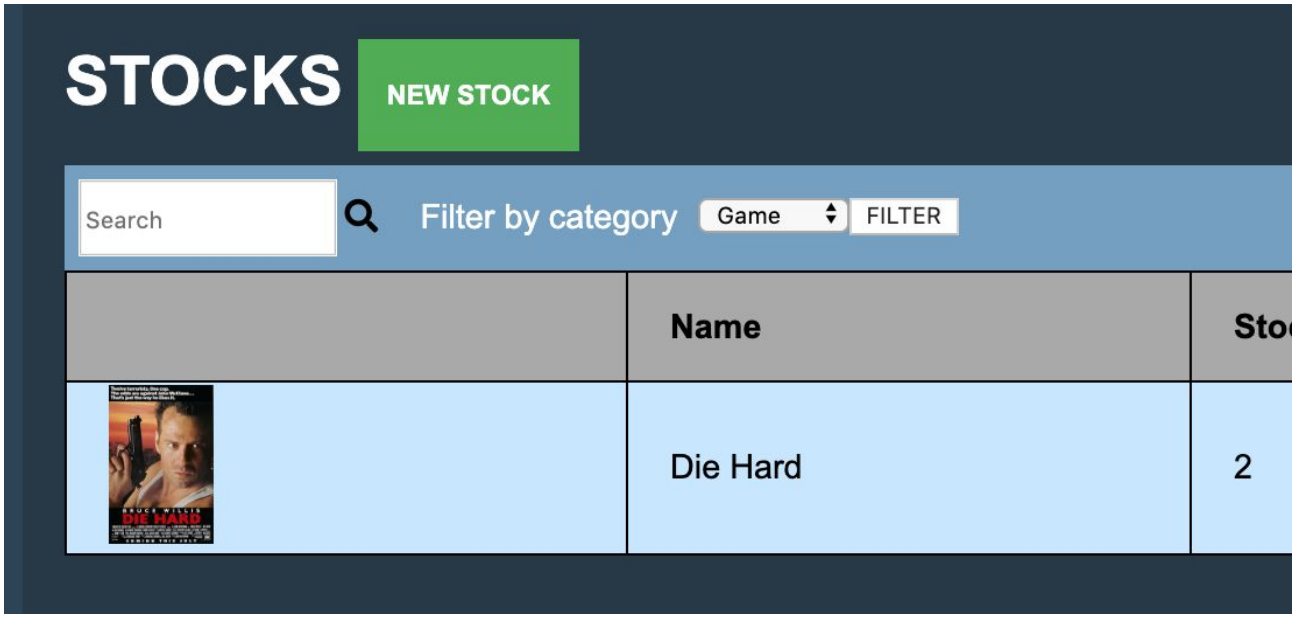
Unit	Ref	Evidence	
P	P.14	Show an interaction with data persistence. Take a screenshot of: * Data being inputted into your program * Confirmation of the data being saved	
		Description: First screenshot shows user inputting information for a new film to be added to the stock system. The second screenshot shows the information in the database.	



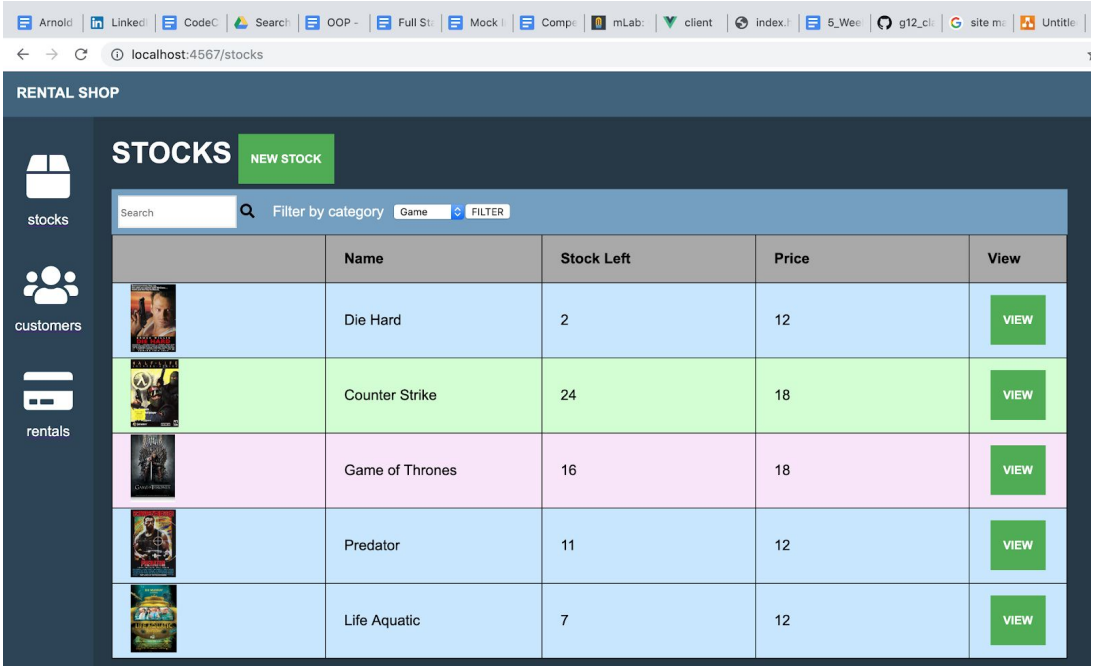

```
[rentals=# SELECT * FROM stocks;
 id |      name       | amount | price |          image           |  type
----+-----------------+--------+-------+--------------------------+---------
  3 | Die Hard        |      2 |    12 | /images/diehard.jpeg     | Film
  4 | Counter Strike  |     24 |    18 | /images/cs.jpeg          | Game
  5 | Game of Thrones |     16 |    18 | /images/GoT.jpg          | TV-Show
  7 | Predator        |     11 |    12 | /images/predator.jpg     | Film
  2 | Life Aquatic    |      7 |    12 | /images/LifeAquatic.jpg | Film
(5 rows)
```

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:User inputs a search value to find a film. Then the film is displayed below.	





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: Rental Shop Project	



https://github.com/CalumCannon/MVC-rental-shop-project

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: Using the punkipa API, displays a list of beers	

```
<script>
import BeerList from '@/components/BeerList';


export default {
  components: { BeerList },
  data() {
    return {
      beers: []
    };
  },
  mounted(){
    fetch('https://api.punkapi.com/v2/beers')
    .then(response => response.json())
    .then(beers => this.beers = beers);
  },
```

View All Beers

My List of Beers

Buzz
Trashy Blonde
Berliner Weisse With Yuzu - B-Sides
Pilsen Lager
Avery Brown Dredge
Electric India
AB:12
Fake Lager
AB:07
Bramling X
Misspent Youth
Arcade Nation
Movember
Alpha Dog

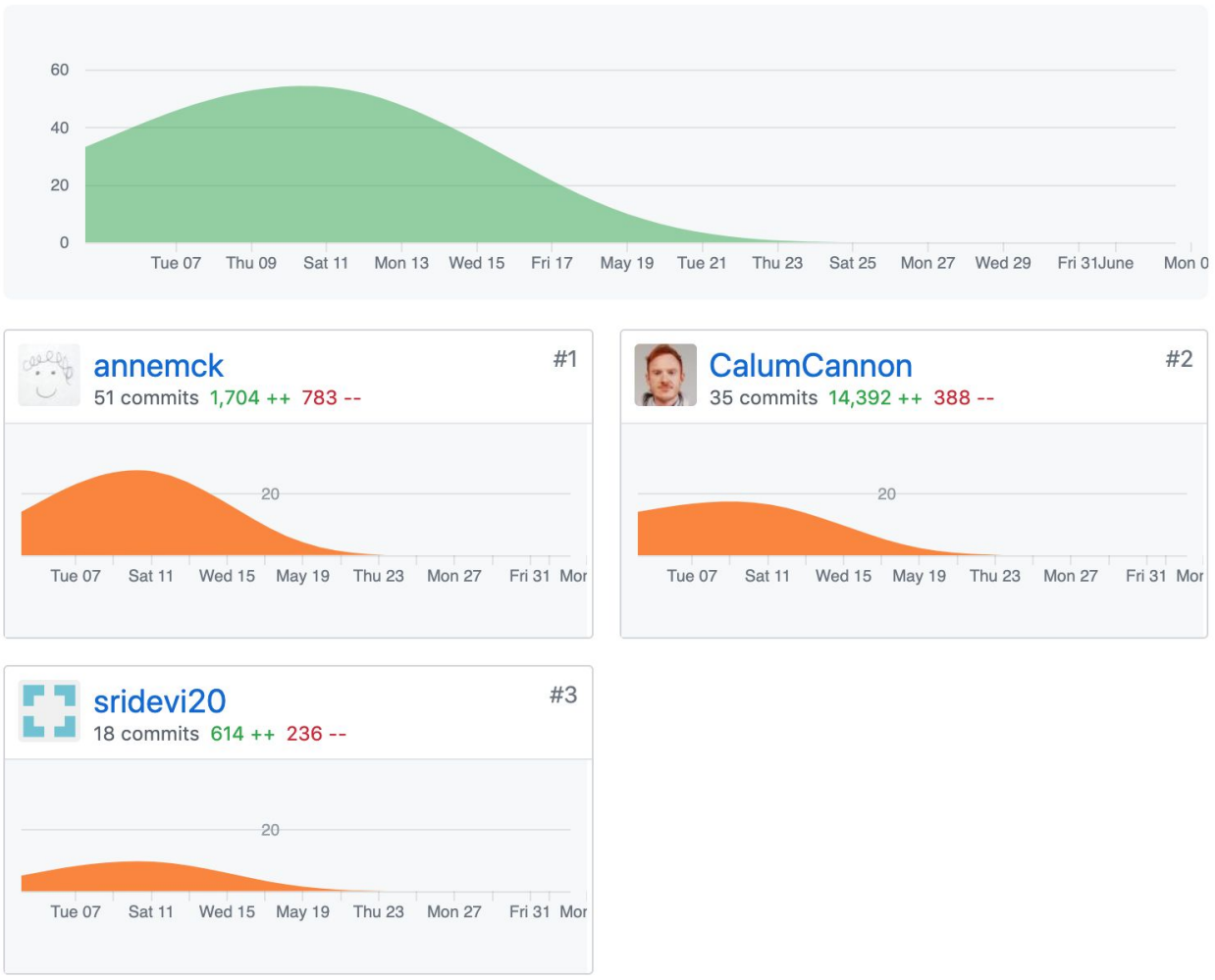
Unit	Ref	Evidence	

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:

Paste Screenshot here

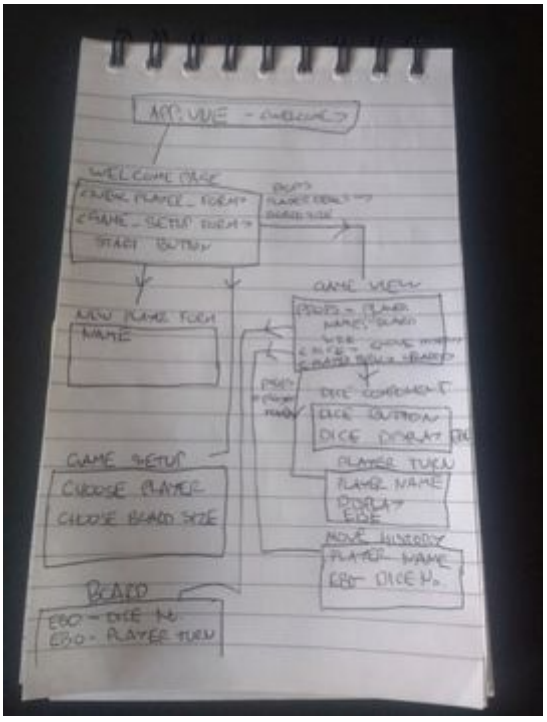
Week 9

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:	



Unit	Ref	Evidence	
P	P.12	Take screenshots or photos of your planning and the different stages of development to show changes.	
		Description: First image is a wireframe, second is an activity diagram.	


WELCOME PAGE
NEW PLAYER FORM
PLAYER SELECTION
GAME SETUP
START GAME


APP.VUE
WELCOME PAGE
NEW PLAYER FORM
GAME SETUP
START BUTTON
NEW NAME FORM
NAME
GAME SETUP
CHOOSE PLAYER
CHOOSE BOARD SIZE
BOARD
GAME VIEW
DICE COMPONENT
DICE BUTTON
PLAYER TURN
PLAYER NAME
MOVE HISTORY
PLAYER NAME

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

Snakes & Ladders Dice Game

You have been tasked to create a web-based app for people to play Snakes & Ladders against friends.

MVP

A player should be able to:

- Roll a dice
- Move on a game board
- Create a user profile
- Select their profile
- Win or loose the game

The game should:

- Be able to have more than one player
- Snakes should move a player down the board
- Ladders should move a player up the board

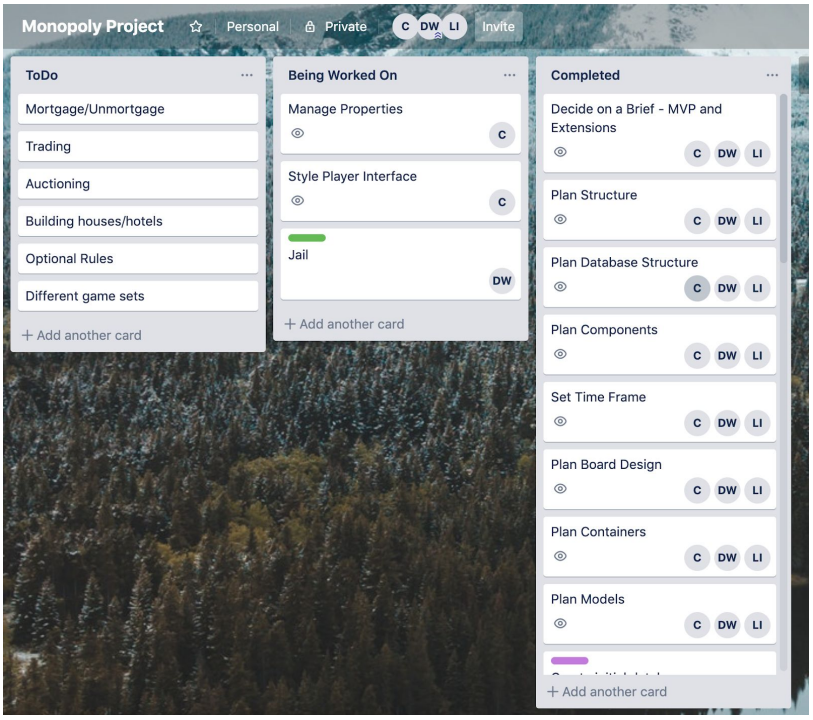
Extensions

- A player can view the leaderboard/their wins & loses
- Players can select the number of players in the game, and those players profiles

Advanced Extensions

A player can choose the size of the game board, small, medium or large

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

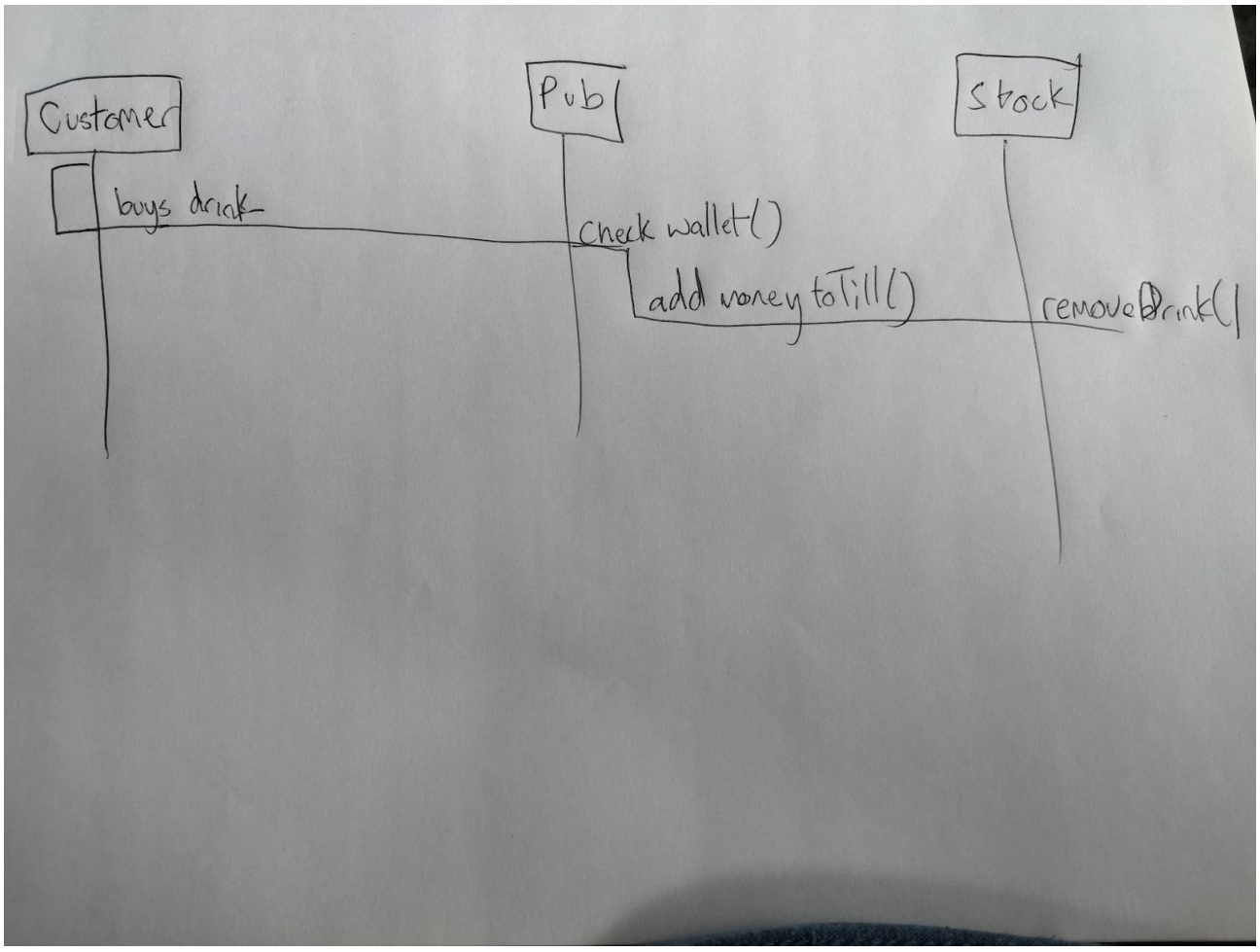


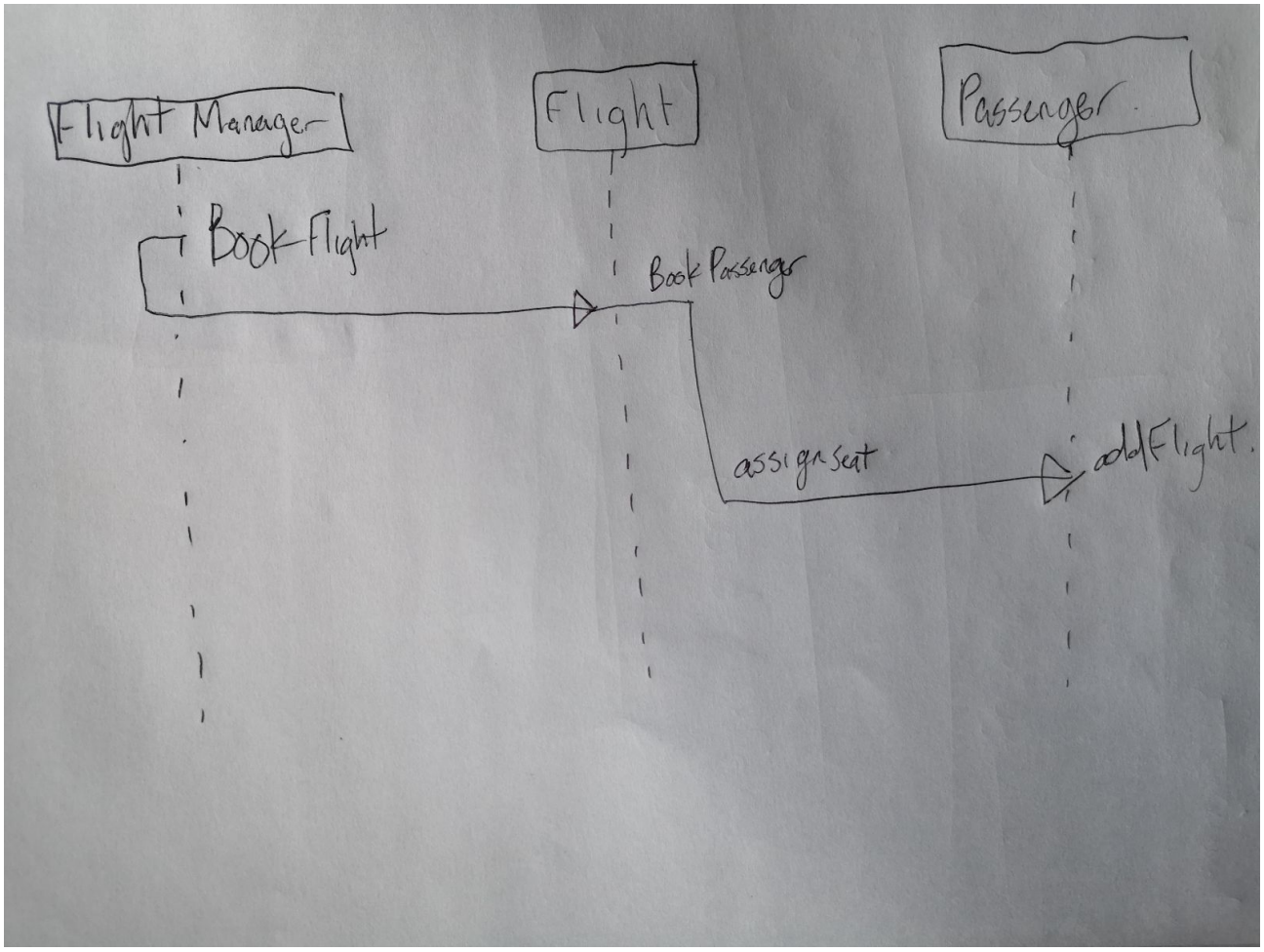
Unit	Ref	Evidence	
P	P.4	Write an acceptance criteria and test plan.	

Criteria	**Solution**	**Pass/Fail**
Must be able to roll dice	Implement dice component with random number generator	PASS
Players must be able to move around the board	Use canvas to render players position and animate movement	PASS
Players must be able to win or lose	Once only one player is left end game	FAIL

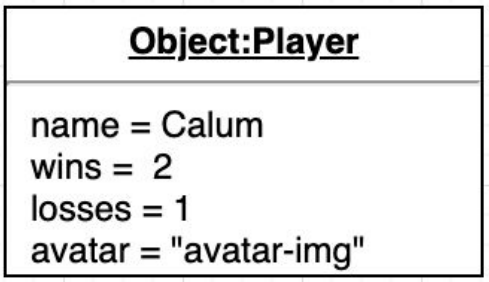
Unit	Ref	Evidence	

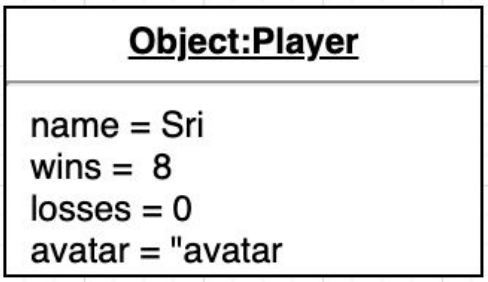
P	P.7	Produce two system interaction diagrams (sequence and/or collaboration diagrams).
		Description:





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





Unit	Ref	Evidence	

P	P.17	Produce a bug tracking report
		Description: Bugs from snakes and ladders group project

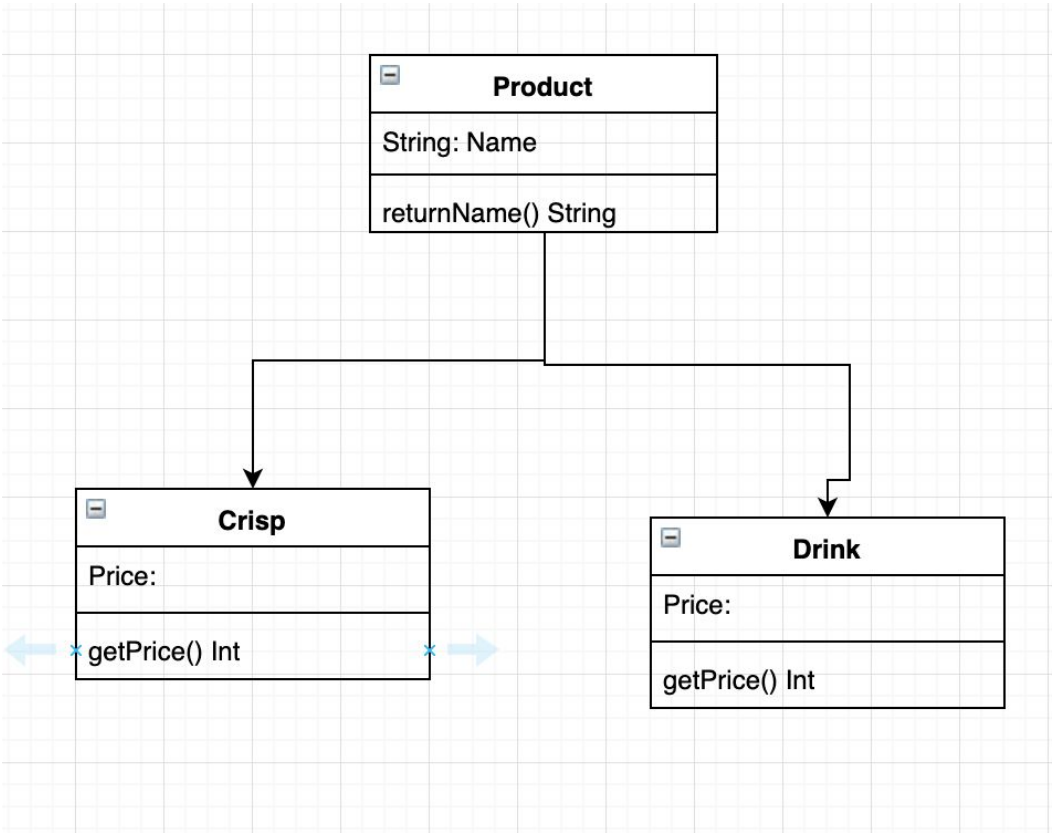
Bug	**Solution**	**Date**
Dice does not display number 1	Typo in image url	19/05/19
Player turn prompt displaying at wrong time	Move the call playerTurn prompt to appropriate place	13/05/19
Player1 is undefined until after first roll	Send player details to player turn component as props when game starts	11/05/19

Week 12

Unit	**Ref**	**Evidence**	
I&T	I.T.7	The use of Polymorphism in a program and what it is doing.	
		Description: Using polymorphism to add multiple different types of objects into vehicles/soldiers arrays.	

```java
public void addUnit(IVehicle vehicle){
    this.units.add((Unit)vehicle);
    this.vehicles.add(vehicle);
}

public void addUnit(ISoldier unit) {
    this.units.add((Unit)unit);
    this.soldiers.add(unit);
}
```

Unit	Ref	Evidence	
A&D	A.D.5	An Inheritance Diagram	
		Description: Drink and Crisps inherits from product.	



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

```java
import java.util.ArrayList;

public class Player {

    private ArrayList<Card> hand;

    public Player(){
        hand = new ArrayList<Card>();
    }

    public ArrayList<Card> returnHand() { return hand; }

    public void addCardToHand(Card card) { this.hand.add(card); }

    public int handSize() { return hand.size(); }
```

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:	

```java
public class Person {

    private String name;
    private String cohort;

    public Person(String name, String cohort){
        this.name = name;
        this.cohort = cohort;
    }

    public String getName() {
        return this.name;
    }

    public String getCohort() { return this.cohort; }

    public void setName(String name) {
        this.name = name;
    }


    public String talk(String language) { return "I love " + language; }

    public void setCohort(String cohort) { this.cohort = cohort; }
}
```

```java
public class Student extends Person{

    public Student(String name, String cohort) { super(name, cohort); }

    @Override
    public String talk(String language) { return "I love learning " + language; }
}
```

```java
@Test
public void canChangeName() {
    person.setName("Jim");
    assertEquals( expected: "Jim", person.getName());
}
```

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: calculate function checks to see if list array contains rock, scissors or paper then returns the appropriate answer. **distanceCheck function returns the distance between two points**

```ruby
class Game

  def initialize(first, second)
    @first = first
    @second = second
  end

  def calculate
      list = [@first, @second]
        return "Paper Wins!" if(list.include?("rock") && list.include?("paper"))
        return "Rock Wins!" if(list.include?("rock") && list.include?("scissors"))
        return "Scissors Wins!" if(list.include?("scissors") && list.include?("paper"))
        return "ERROR"
  end

end
```

```javascript
distanceCheck(player, tx, ty){
  var dist = Math.sqrt( Math.pow((player.xpos-tx), 2) + Math.pow((player.ypos-ty), 2) );
  if(dist < 50){
    return true;
  }
  console.log(dist);
  return false;
},
```