PDA: Software Development
Level 8
Student Evidence Checklist

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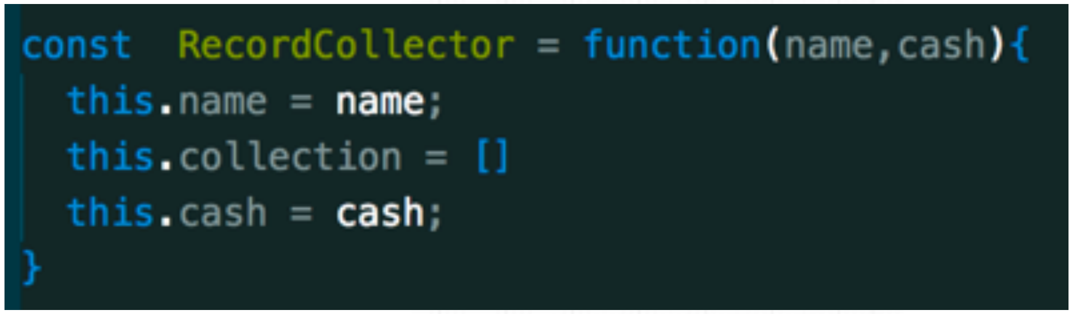
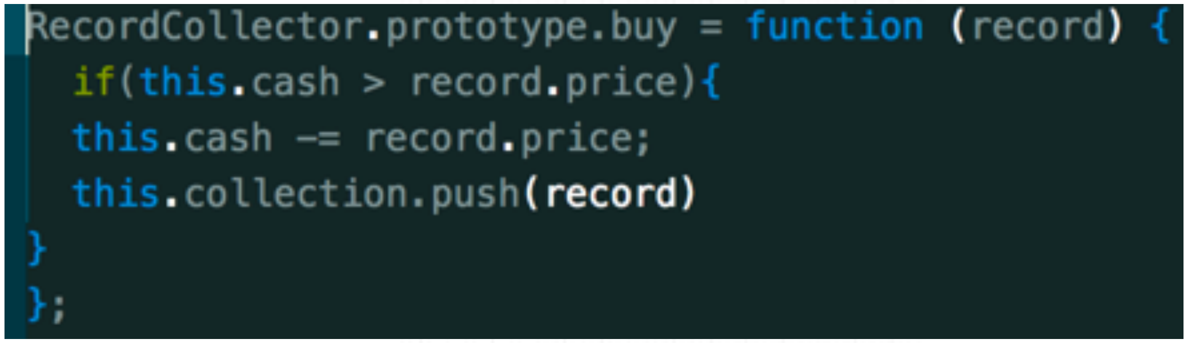
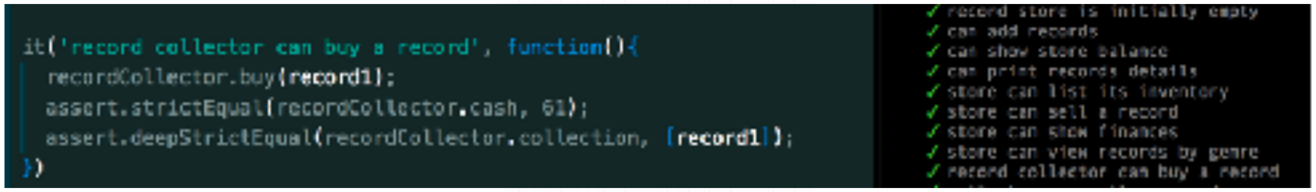
The evidence required can be taken from your assignments, homework that you have completed on your own or by creating a specific example for the PDA.

	Unit	Ref.	Evidence	Done
	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	

			
			`const  RecordCollector = function(name,cash){`
			`  this.name = name;`
			`  this.collection = []`
			`  this.cash = cash;`
			`}`	

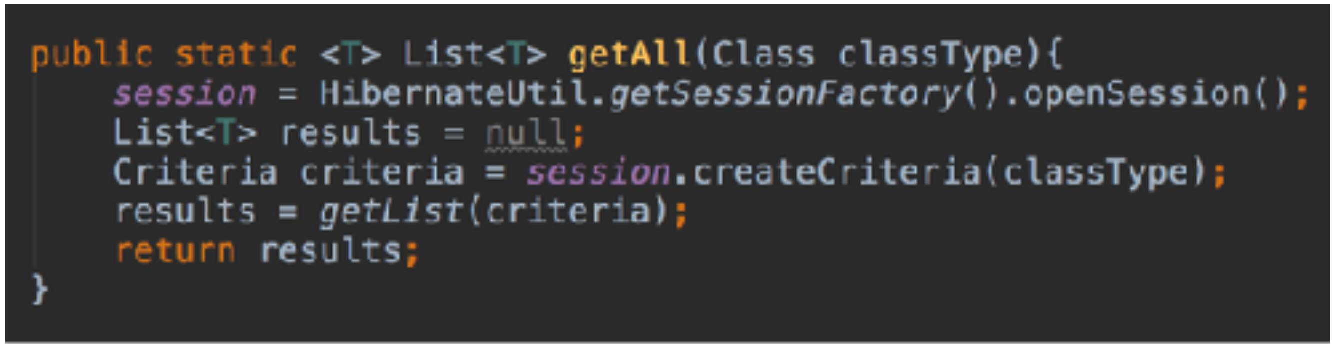
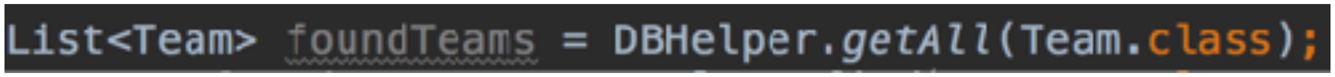
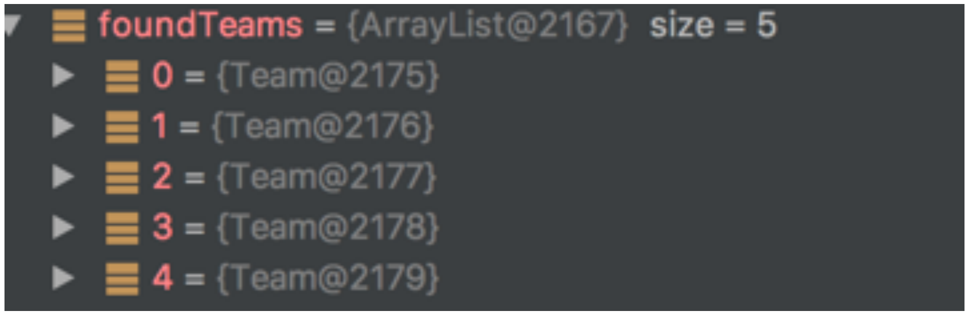
Week 2			
			`RecordCollector.prototype.buy = function (record) {`
			`  if(this.cash > record.price){`
			`  this.cash -= record.price;`
			`  this.collection.push(record)`
			`}`
			`};`	

				
	I & T	I.T 6		
	I & T		Static and Dynamic testing task A	

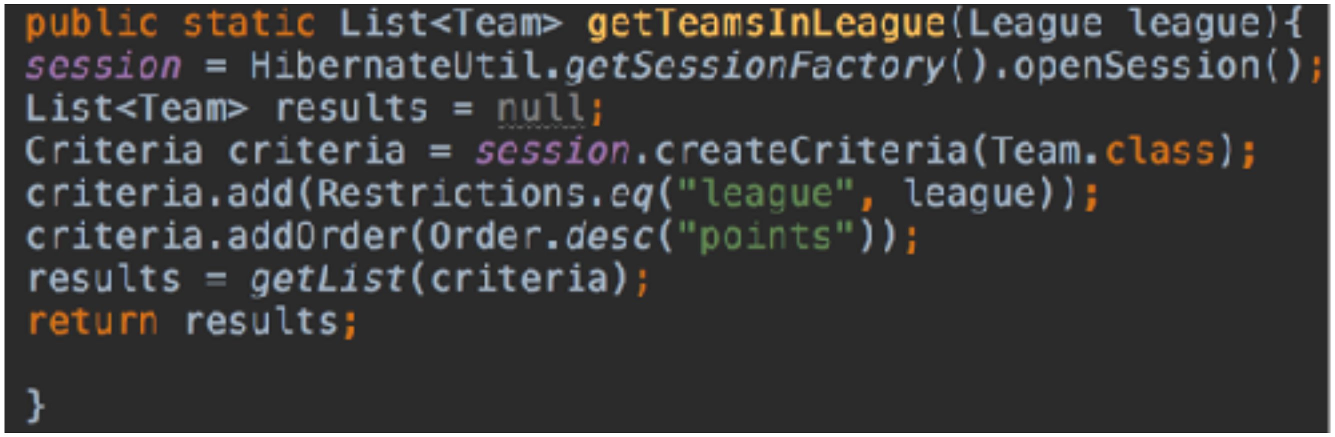
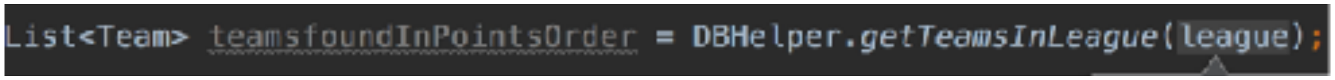
```
it('record collector can buy a record', function(){
  recordCollector.buy(record1);
  assert.strictEqual(recordCollector.cash, 61);
  assert.deepStrictEqual(recordCollector.collection, [record1]);
})
```

```
✓ record store is initially empty
✓ can add records
✓ can show store balance
✓ can print records details
✓ store can list its inventory
✓ store can sell a record
✓ store can show finances
✓ store can view records by genre
✓ record collector can buy a record
```

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

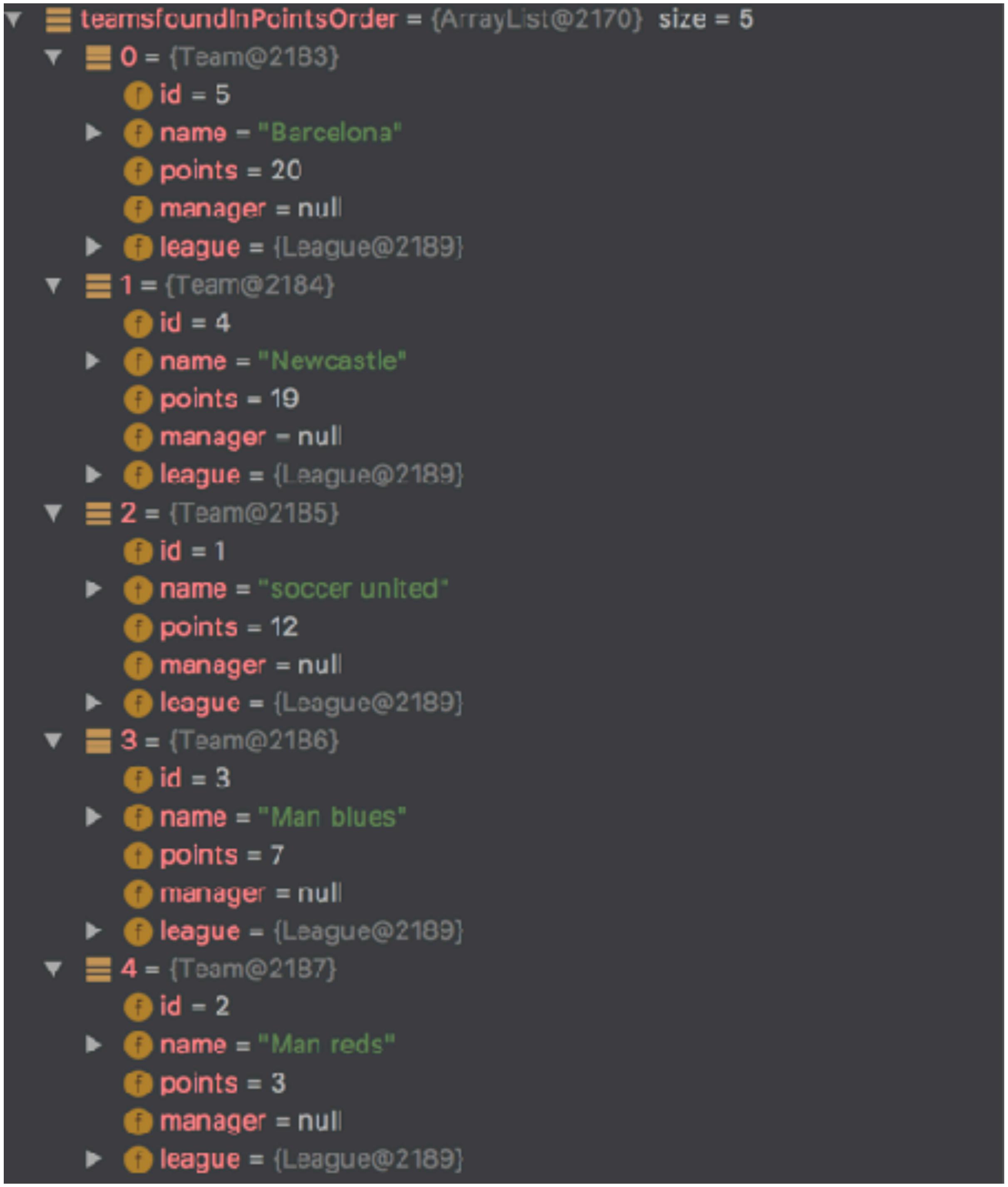
Week 3			
			`public static <T> List<T> getAll(Class classType){`
			`    session = HibernateUtil.getSessionFactory().openSession();`
			`    List<T> results = null;`
			`    Criteria criteria = session.createCriteria(classType);`
			`    results = getList(criteria);`
			`    return results;`
			`}`
			
			`List<Team> foundTeams = DBHelper.getAll(Team.class);`
			
			`foundTeams = {ArrayList@2167}  size = 5`
			`  0 = {Team@2175}`
			`  1 = {Team@2176}`
			`  2 = {Team@2177}`
			`  3 = {Team@2178}`
			`  4 = {Team@2179}`	

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

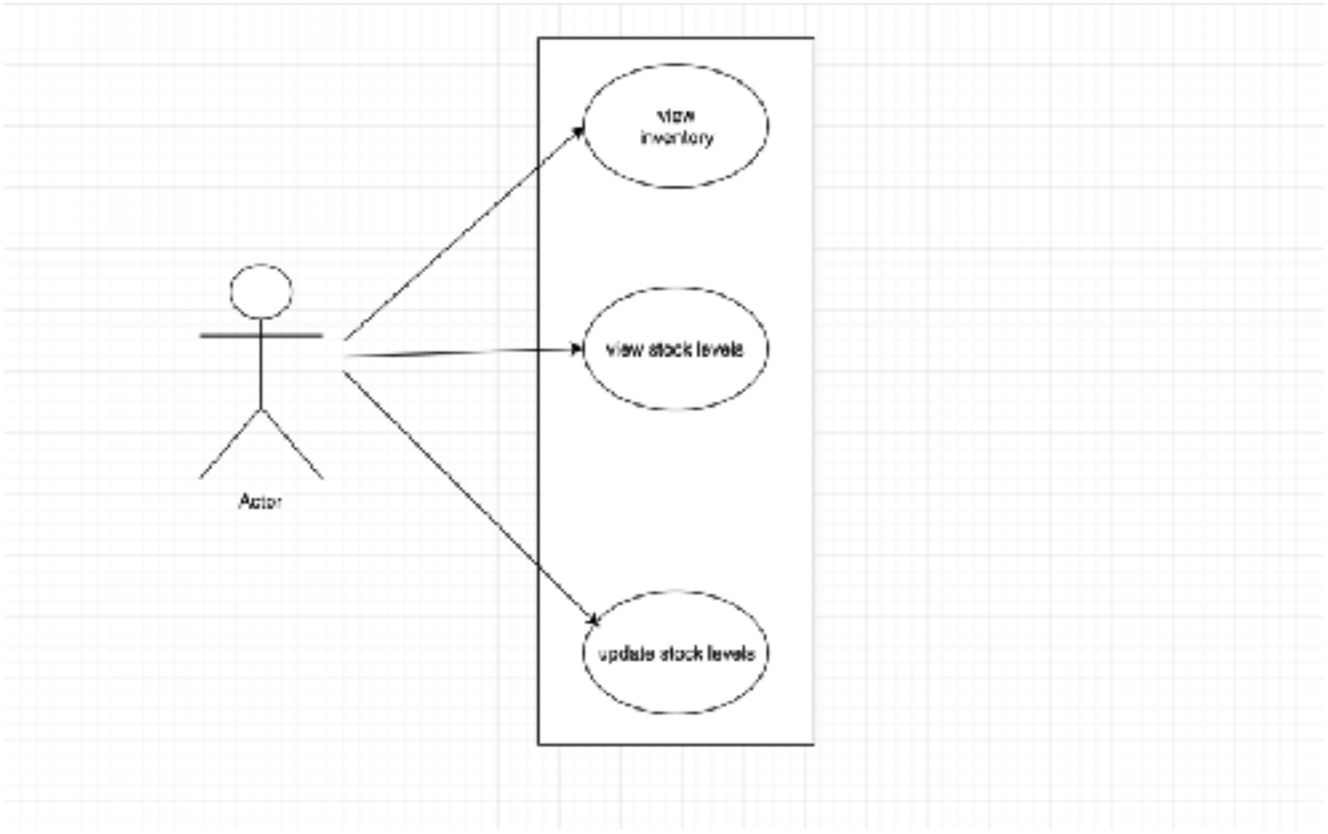
			 	

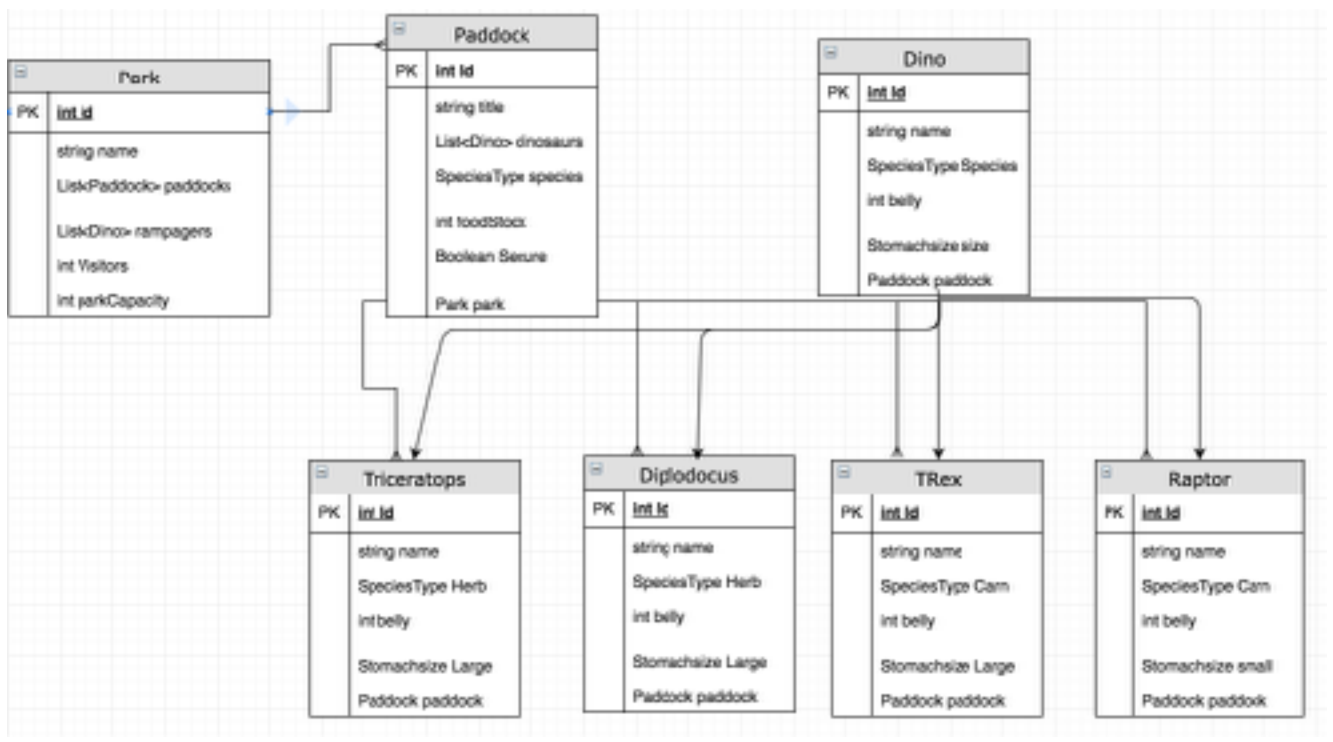
```
public static List<Team> getTeamsInLeague(League league){
session = HibernateUtil.getSessionFactory().openSession();
List<Team> results = null;
Criteria criteria = session.createCriteria(Team.class);
criteria.add(Restrictions.eq("league", league));
criteria.addOrder(Order.desc("points"));
results = getList(criteria);
return results;

}
```

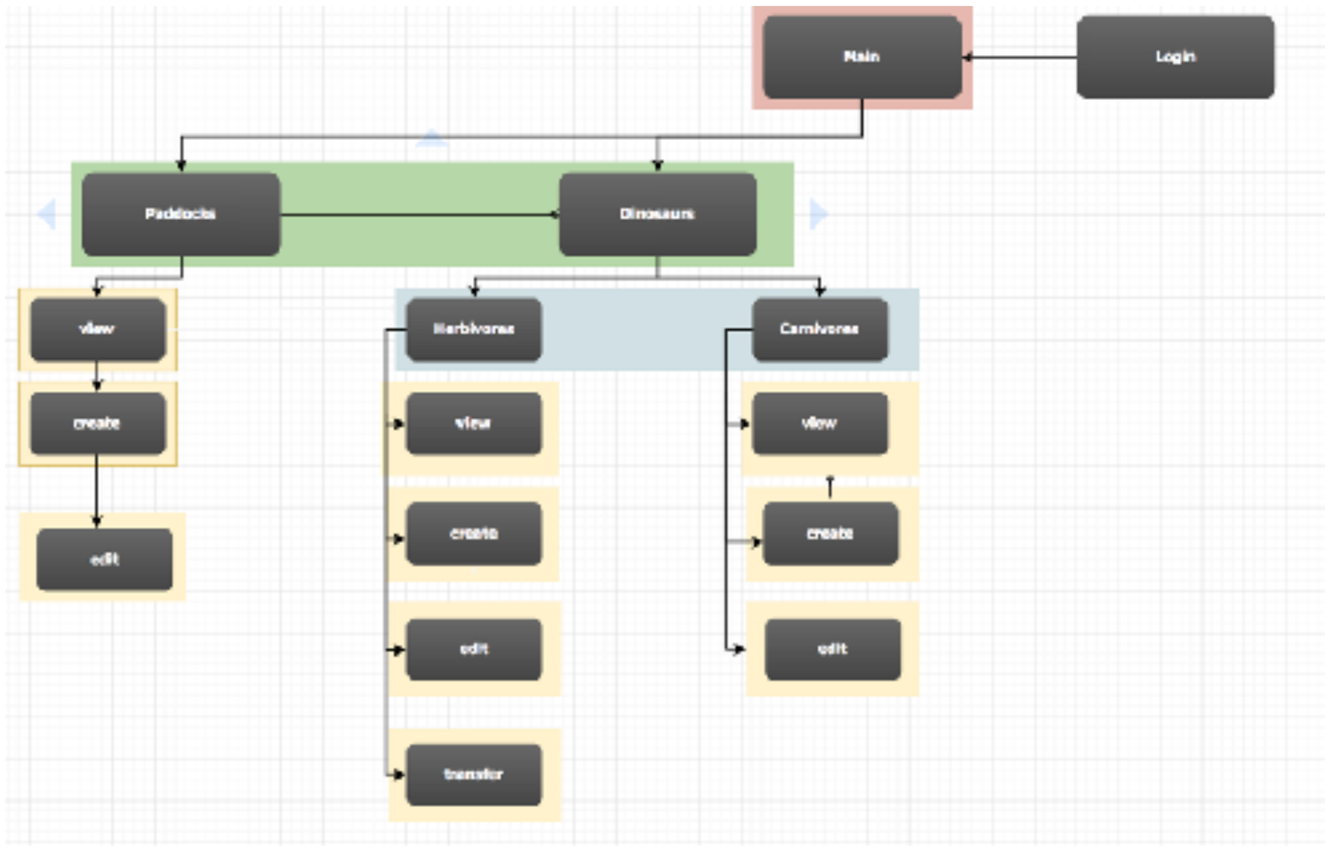
```
List<Team> teamsfoundInPointsOrder = DBHelper.getTeamsInLeague(league);
```

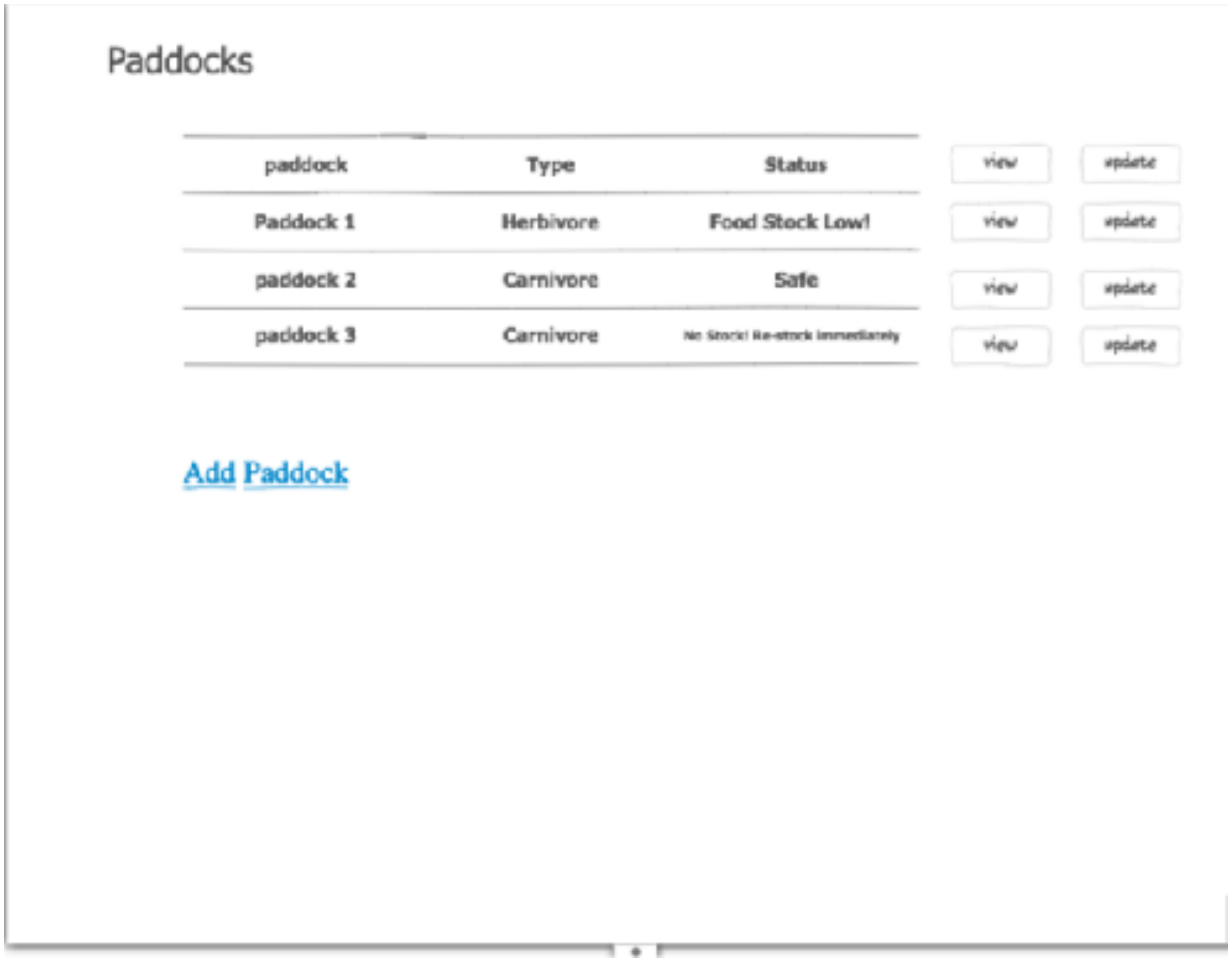
				

```
▼ teamsfoundInPointsOrder = {ArrayList@2170}  size = 5
    ▼ 0 = {Team@2183}
          id = 5
        ▶ name = "Barcelona"
          points = 20
          manager = null
        ▶ league = {League@2189}
    ▼ 1 = {Team@2184}
          id = 4
        ▶ name = "Newcastle"
          points = 19
          manager = null
        ▶ league = {League@2189}
    ▼ 2 = {Team@2185}
          id = 1
        ▶ name = "soccer united"
          points = 12
          manager = null
        ▶ league = {League@2189}
    ▼ 3 = {Team@2186}
          id = 3
        ▶ name = "Man blues"
          points = 7
          manager = null
        ▶ league = {League@2189}
    ▼ 4 = {Team@2187}
          id = 2
        ▶ name = "Man reds"
          points = 3
          manager = null
        ▶ league = {League@2189}
```

	Unit	Ref.	Evidence	Done
	A & D	A.D 1	A Use Case Diagram	
			 view inventory view stock levels update stock levels Actor	
	A & D	A.D 2	A Class diagram.	

		 Park PK int id string name List<Paddock> paddocks List<Dino> rampagers int Visitors int parkCapacity Paddock PK int Id string title List<Dino> dinosaurs SpeciesType species int foodStock Boolean Secure Park park Dino PK int Id string name SpeciesType Species int belly Stomachsize size Paddock paddock Triceratops PK int Id sting name SpeciesType Herb int belly Stomachsize Large Paddock paddock Diplodocus PK int Id string name SpeciesType Herb int belly Stomachsize Large Paddock paddock TRex PK int Id string name SpeciesType Carn int belly Stomachsize Large Paddock paddock Raptor PK int Id string name SpeciesType Carn int belly Stomachsize small Paddock paddock	
A & D	A.D 3	An Object diagram.	
A & D	A.D 4	An Activity Diagram	
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	
P	P 5	Create a user sitemap.	

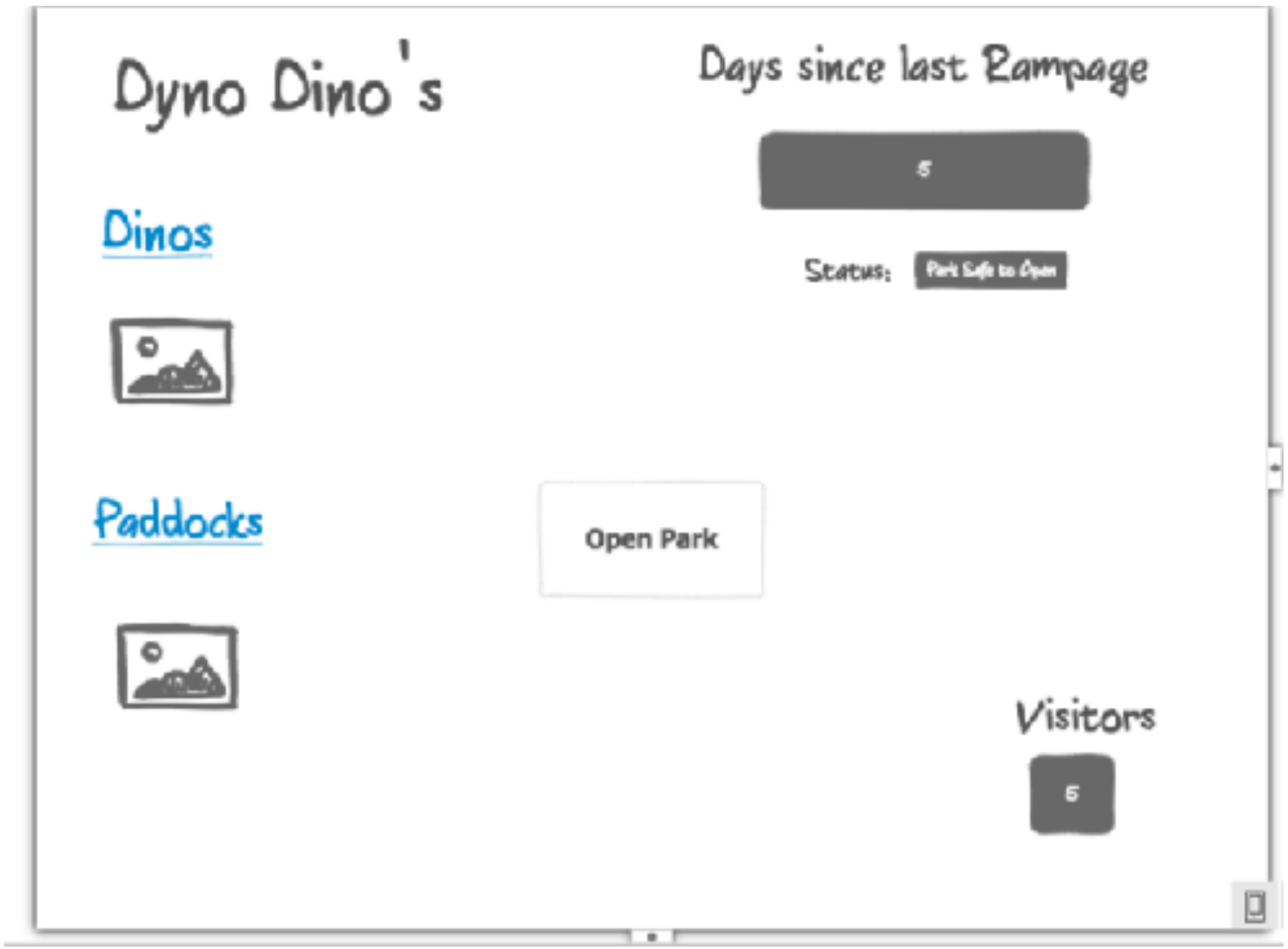
		 Main Login Paddocks Dinosaurs view create edit Herbivores Carnivores view create edit transfer view create edit	
P	P 6	Produce two wireframe designs.	

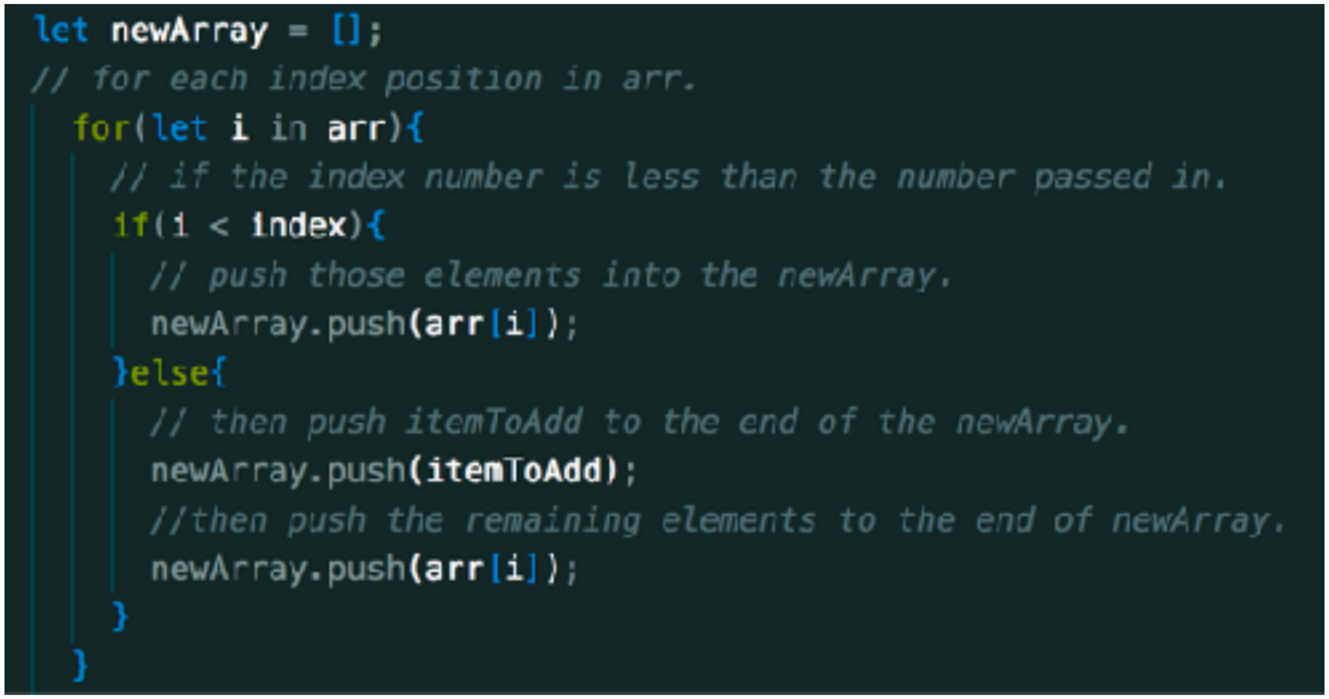


Paddocks

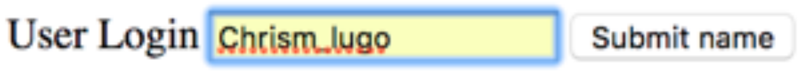
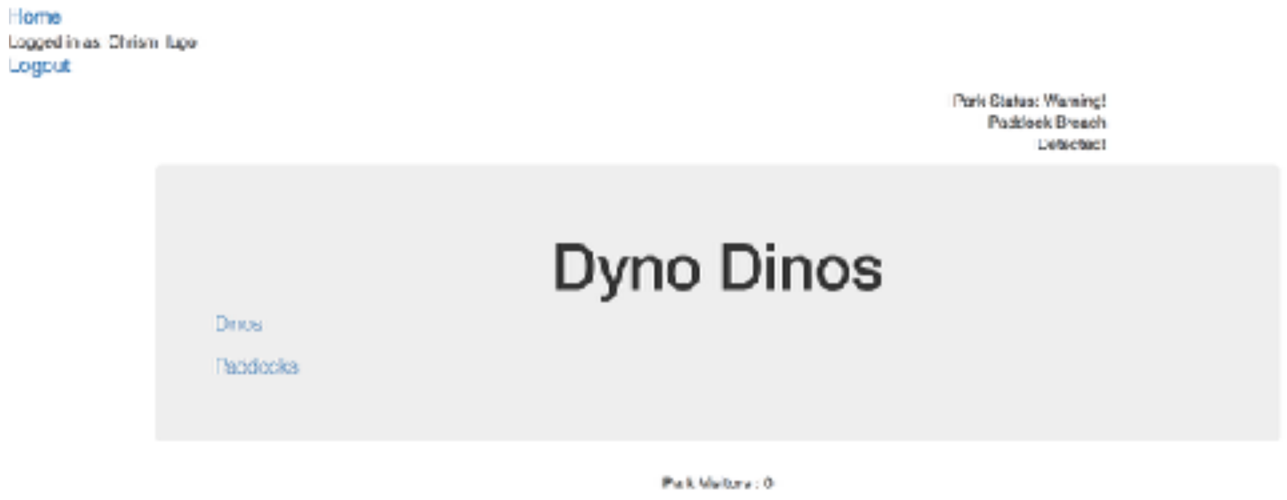
paddock	Type	Status	view	update
Paddock 1	Herbivore	Food Stock Low!	view	update
paddock 2	Carnivore	Safe	view	update
paddock 3	Carnivore	No Stock! Re-stock immediately	view	update

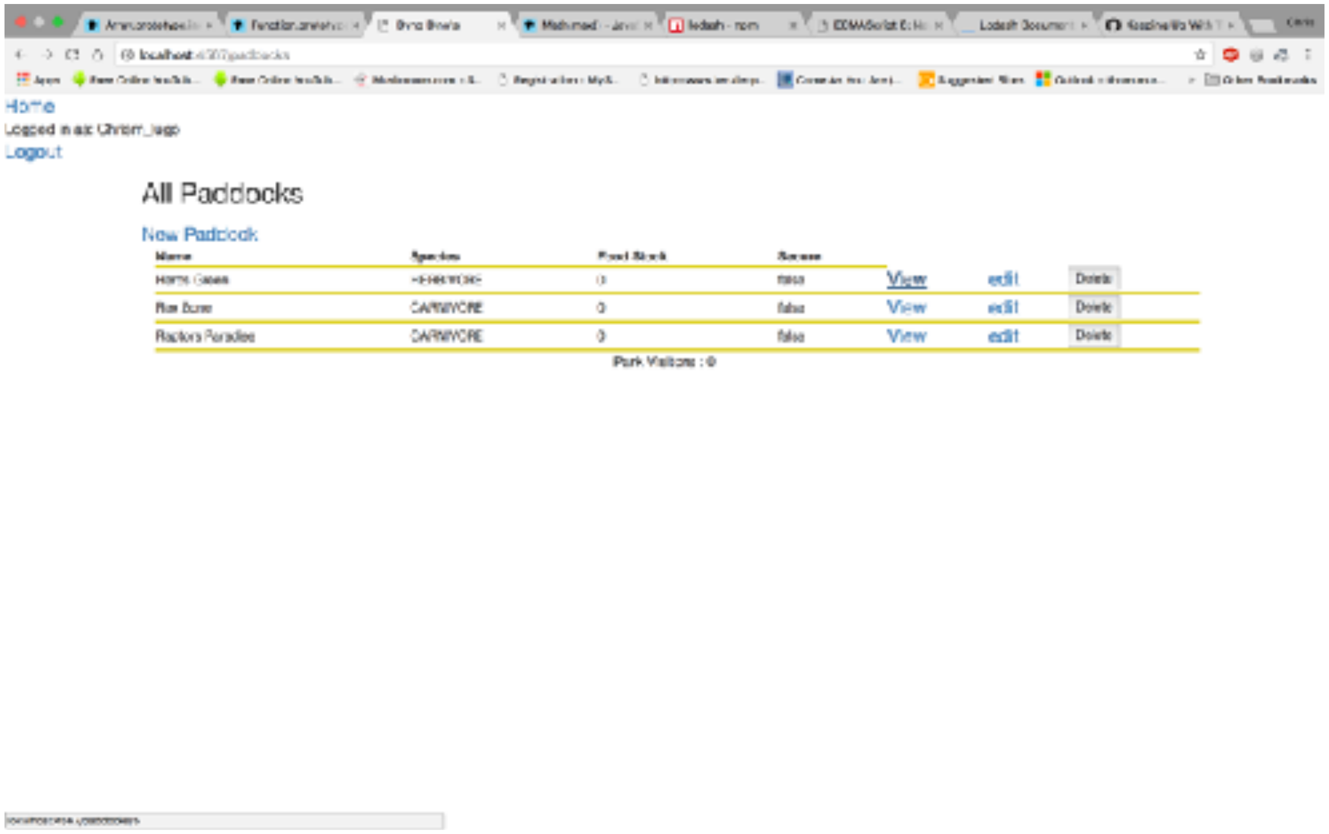
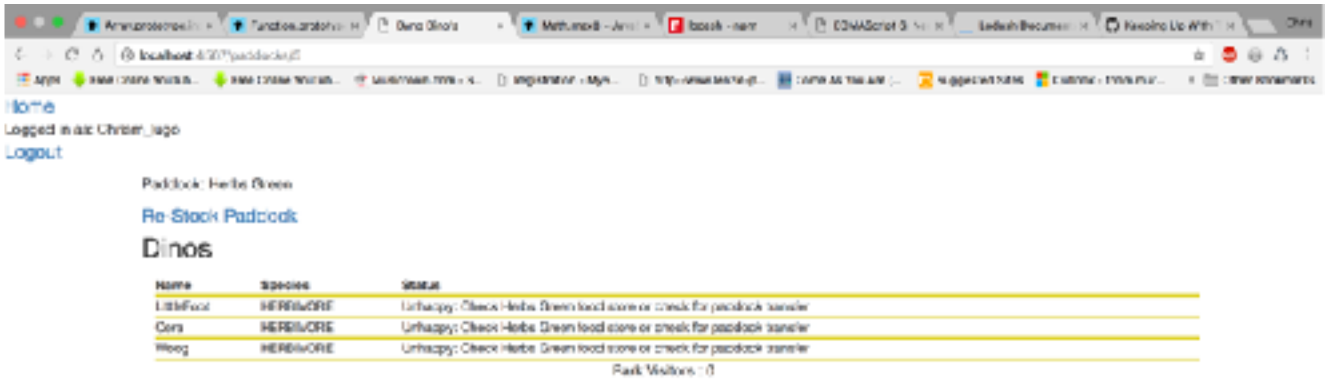
Add Paddock

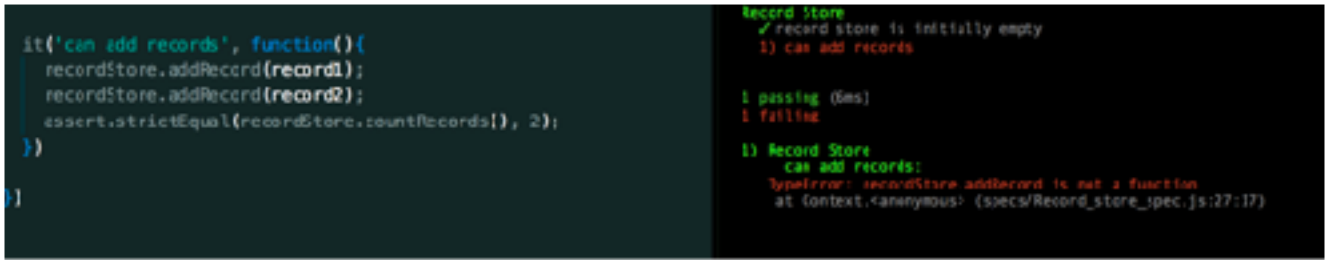
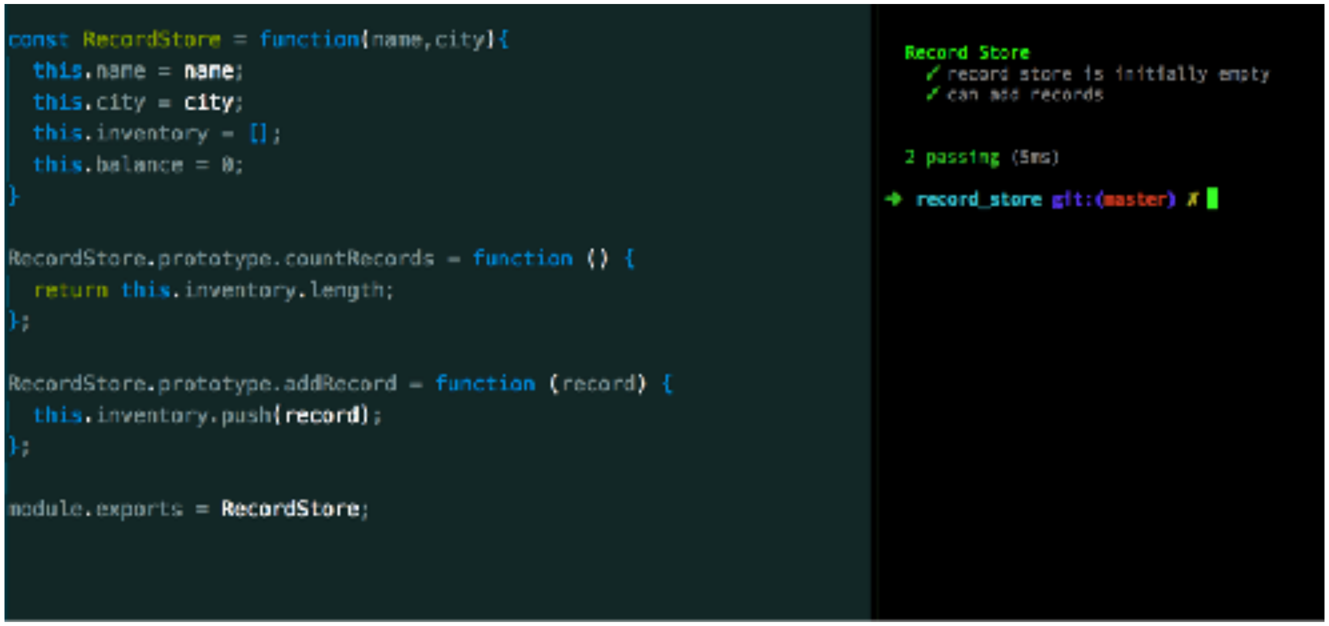
Week 5			 Dyno Dino's Days since last Rampage 5 Dinos Status: Park Safe to Open Paddocks Open Park Visitors 5	
	P	P 10	Take a screenshot of an example of pseudocode for a function.	

		
		```
		let newArray = [];
		// for each index position in arr.
		  for(let i in arr){
		    // if the index number is less than the number passed in.
		    if(i < index){
		      // push those elements into the newArray.
		      newArray.push(arr[i]);
		    }else{
		      // then push itemToAdd to the end of the newArray.
		      newArray.push(itemToAdd);
		      //then push the remaining elements to the end of newArray.
		      newArray.push(arr[i]);
		    }
		  }
		```

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	
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	

		 User Login Chrism_lugo Submit name  Home Logged in as: Chrism_lugo Logout Park Status: Warning! Paddock Breach Detected! Dyno Dinos Dinos Paddocks Park Visitors : 0	
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	

			 localhost:4567/paddocks Home Logged in as: Chrism_lago Logout All Paddocks New Paddock Name | Species | Food Stock | Secure Herbs Green | HERBIVORE | 0 | false | View | edit | Delete Rex Zone | CARNIVORE | 0 | false | View | edit | Delete Raptors Paradise | CARNIVORE | 0 | false | View | edit | Delete Park Visitors : 0  localhost:4567/paddocks/5 Home Logged in as: Chrism_lago Logout Paddock: Herbs Green Re-Stock Paddock Dinos Name | Species | Status LittleFoot | HERBIVORE | Unhappy: Check Herbs Green food store or check for paddock transfer Cera | HERBIVORE | Unhappy: Check Herbs Green food store or check for paddock transfer Woog | HERBIVORE | Unhappy: Check Herbs Green food store or check for paddock transfer Park Visitors : 0	

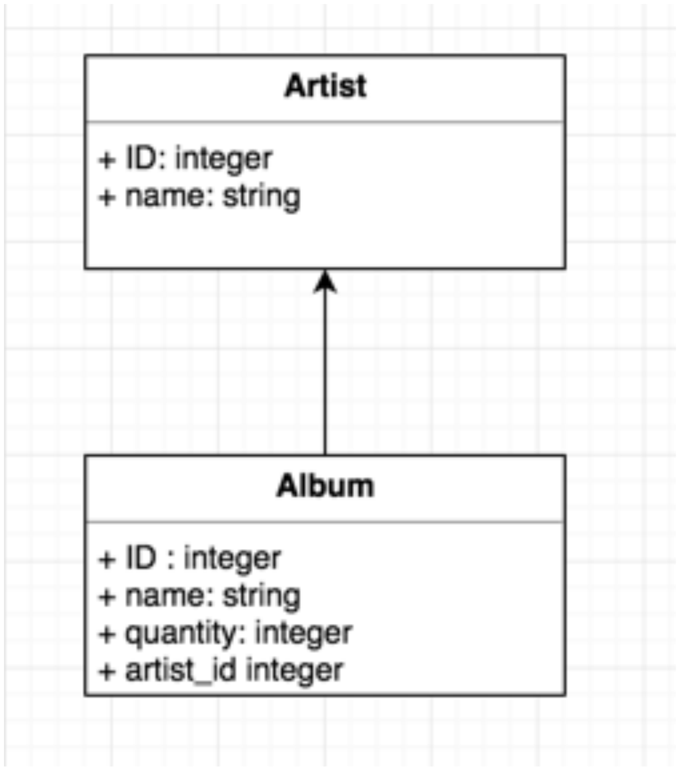
	P	P 18	Demonstrate testing in your program. Take screenshots of: * Example of test code * The test code failing to pass * Example of the test code once errors have been corrected * The test code passing	
			 	

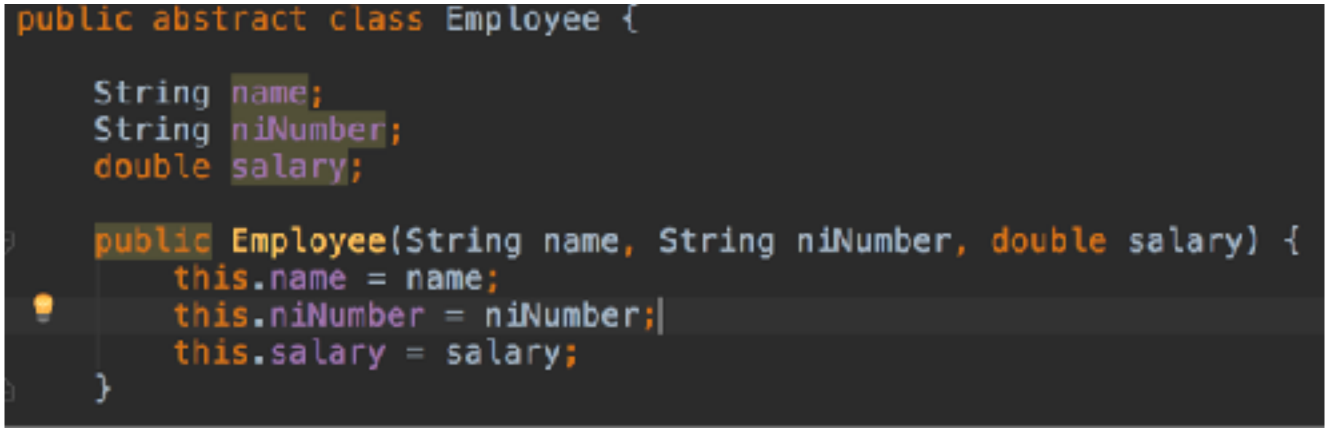
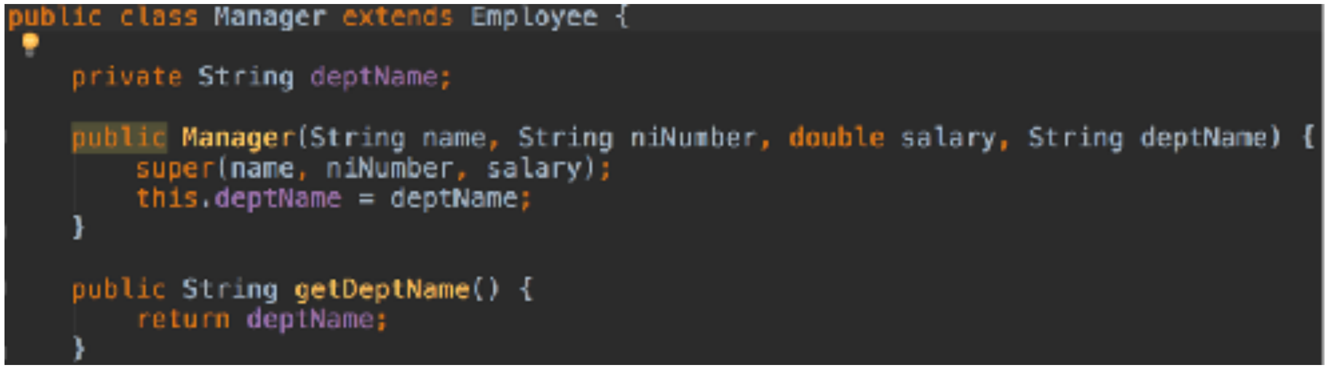
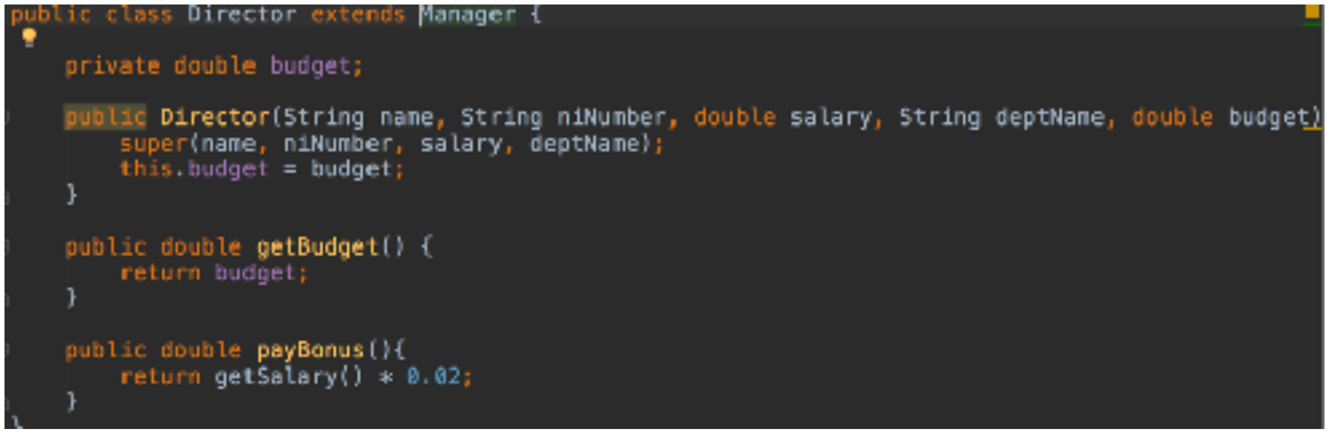
```
it('can add records', function(){
  recordStore.addRecord(record1);
  recordStore.addRecord(record2);
  assert.strictEqual(recordStore.countRecords(), 2);
})

})
```

```
Record Store
  ✓ record store is initially empty
  1) can add records


1 passing (6ms)
1 failing

1) Record Store
     can add records:
   TypeError: recordStore.addRecord is not a function
    at Context.<anonymous> (specs/Record_store_spec.js:27:17)
```

```
const RecordStore = function(name,city){
  this.name = name;
  this.city = city;
  this.inventory = [];
  this.balance = 0;
}

RecordStore.prototype.countRecords = function () {
  return this.inventory.length;
};

RecordStore.prototype.addRecord = function (record) {
  this.inventory.push(record);
};

module.exports = RecordStore;
```

```
  Record Store
    ✓ record store is initially empty
    ✓ can add records


  2 passing (5ms)

➜ record_store git:(master) ✗
```

Unit	Ref.	Evidence	Done
I & T	I.T 7	Demonstrate the use of Polymorphism in a program.	
A & D	A.D 5	An Inheritance Diagram	
		 Artist + ID: integer + name: string Album + ID : integer + name: string + quantity: integer + artist_id integer	
I & T	I.T 1	Take a screenshot of an example of encapsulation in a program.	
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.	

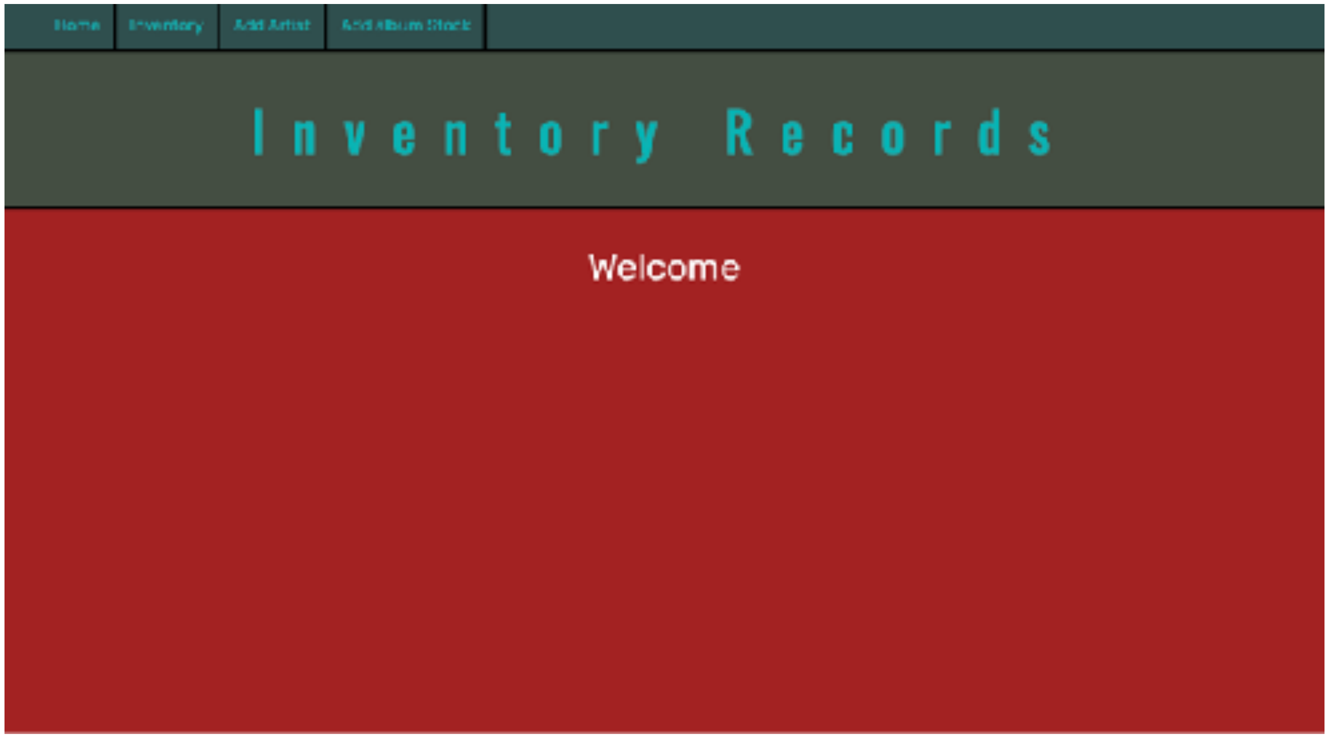
Week 7			  	

```java
public abstract class Employee {

    String name;
    String niNumber;
    double salary;

    public Employee(String name, String niNumber, double salary) {
        this.name = name;
        this.niNumber = niNumber;
        this.salary = salary;
    }
```

```java
public class Manager extends Employee {

    private String deptName;

    public Manager(String name, String niNumber, double salary, String deptName) {
        super(name, niNumber, salary);
        this.deptName = deptName;
    }

    public String getDeptName() {
        return deptName;
    }
```

```java
public class Director extends Manager {

    private double budget;

    public Director(String name, String niNumber, double salary, String deptName, double budget)
        super(name, niNumber, salary, deptName);
        this.budget = budget;
    }

    public double getBudget() {
        return budget;
    }

    public double payBonus(){
        return getSalary() * 0.02;
    }
}
```

	P	P 11	Take a screenshot of one of your projects where you have worked alone and attach the Github link.	

			 Home Inventory Add Artist Add Album Stock Inventory Records Welcome https://github.com/Chrismlugo/Project-1	
	P	P 12	Take screenshots or photos of your planning and the different stages of development to show changes.	

	Unit	Ref.	Evidence	Done
Week 11	I & T		Unit, integration and acceptance testing task B	
	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	

	Unit	Ref.	Evidence	Done

Week 13	P	P 1	Take a screenshot of the contributor’s page on Github from your group project to show the team you worked with.	
	P	P 2	Take a screenshot of the project brief from your group project.	
	P	P 3	Provide a screenshot of the planning you completed during your group project, e.g. Trello MOSCOW board.	
	P	P 4	Write an acceptance criteria and test plan.	
	P	P 7	Produce two system interaction diagrams (sequence and/or collaboration diagrams).	
	P	P 8	Produce two object diagrams.	
	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.	
	P	P 17	Produce a bug tracking report	