PROJECT Design Documentation

Team Information

- Team name: BLACKHAWKS
- Team members
  - HAYDEN CABRAL
  - ETHAN ABBATE
  - ANGELA NGO
  - VINCENT SCHWARTZ

Executive Summary

The project is an NHL jersey store for the Chicago Blackhawks. In addition to the store itself, the project will contain the tools necessary for an administrator to control the inventory of products.

Purpose

This project is a jersey store for the NHL franchise Chicago Blackhawks. The most important user group for this project is the customer, as a vast majority of design decisions rely on making a great customer experience while shopping on the e-store.

Glossary and Acronyms

> *Provide a table of terms and acronyms.*

Term	Definition
SPA	Single Page

Requirements

This section describes the features of the application.

Inventory editing Interactive storefront Color accessibility settings login/logout with admin priviliges

Definition of MVP

NHL Jersey store with the capability to persist with the user who shopped there. In addition, the store should have the capability to edit the inventory in various ways.

MVP Features

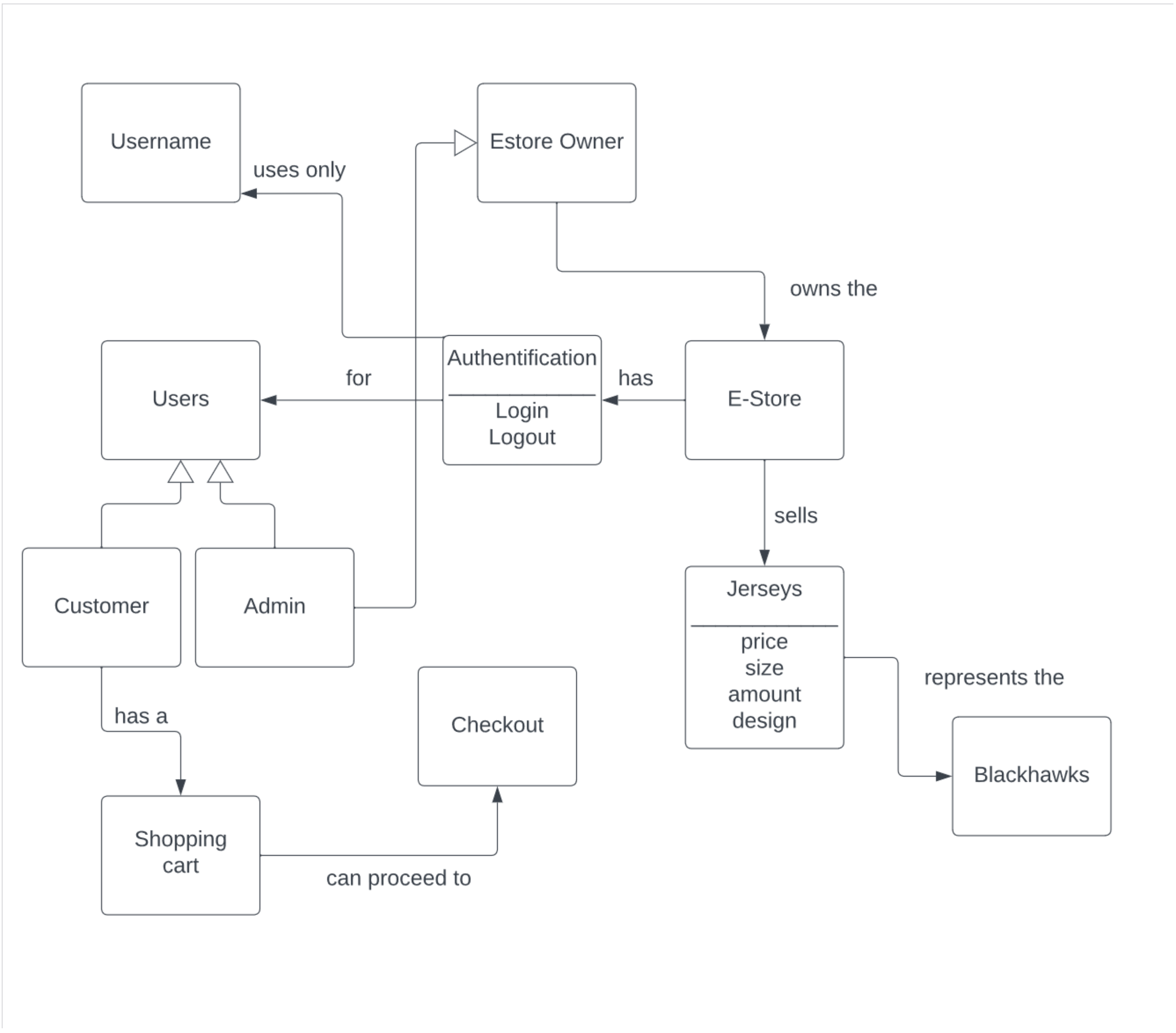
Buyer Owner Maintain Inventory Color Blindness Accessibility

Roadmap of Enhancements

As an effort to make the estore as accessible as possible, we are planning to implement a number of settings for different types of color blindless. In addition, several aesthetic and functional improvements such as REACT, storing our jerseys in a database using POSTRGRSQL, and others to make a more streamlined and professional experience.

Application Domain

This section describes the application domain.



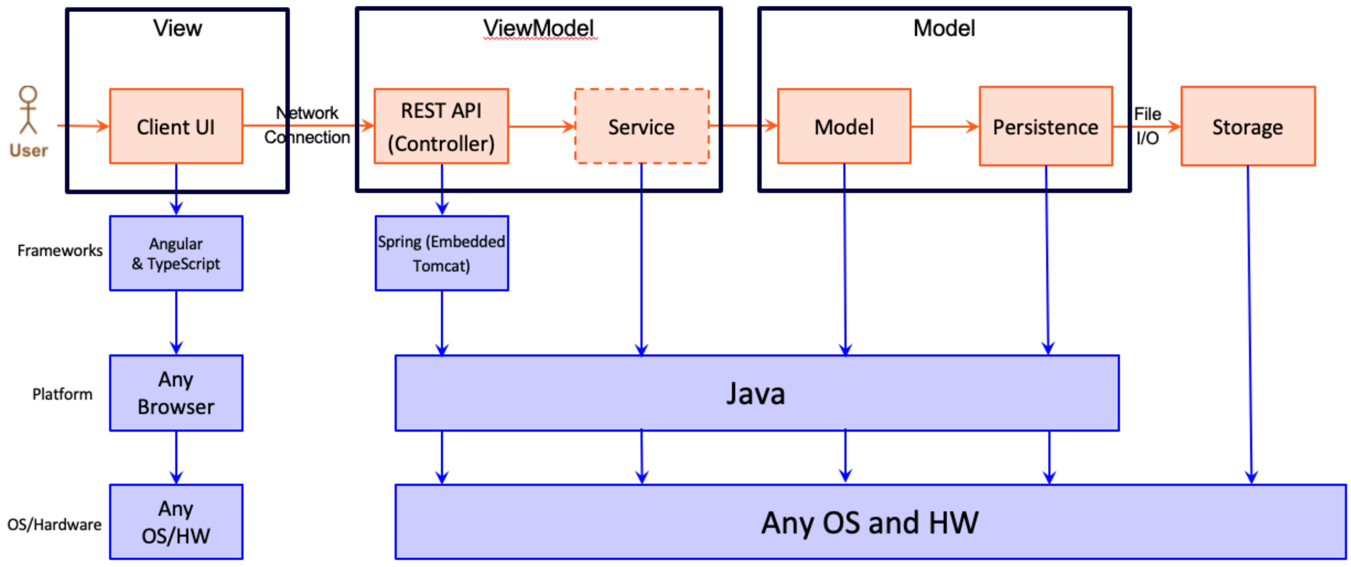
Almost everything within the domain depends on whether the user is an admin or not, as in each case many features become available depending on the answer. In addition, the Jersey object is the backbone of the store, as this is the only product that the store will sell.

Architecture and Design

This section describes the application architecture.

Summary

The following Tiers/Layers model shows a high-level view of the webapp's architecture.



The e-store web application, is built using the Model–View–ViewModel (MVVM) architecture pattern.

The Model stores the application data objects including any functionality to provide persistance.

The View is the client-side SPA built with Angular utilizing HTML, CSS and TypeScript. The ViewModel provides RESTful APIs to the client (View) as well as any logic required to manipulate the data objects from the Model.

Both the ViewModel and Model are built using Java and Spring Framework. Details of the components within these tiers are supplied below.

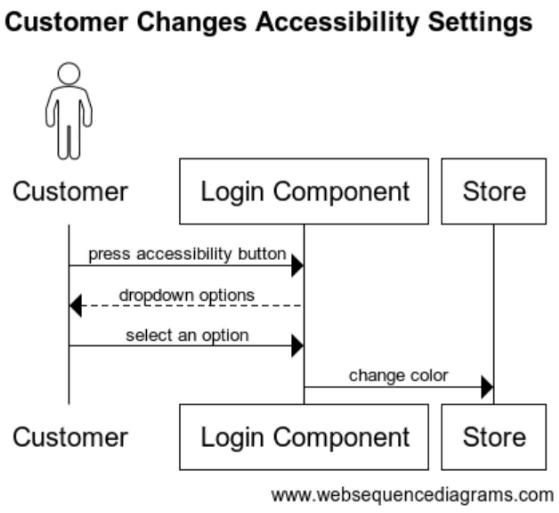
Overview of User Interface

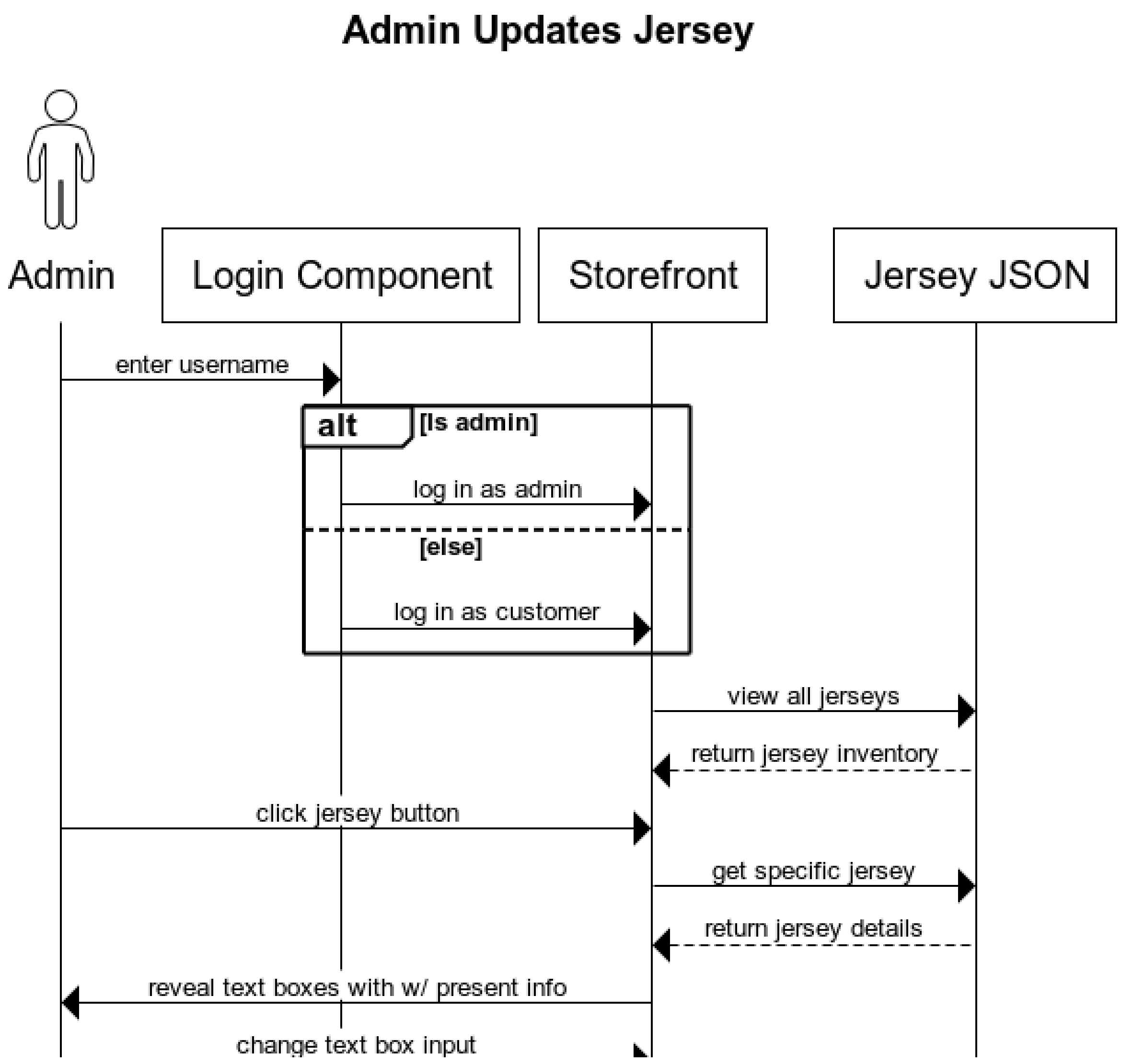
This section describes the web interface flow; this is how the user views and interacts with the e-store application.

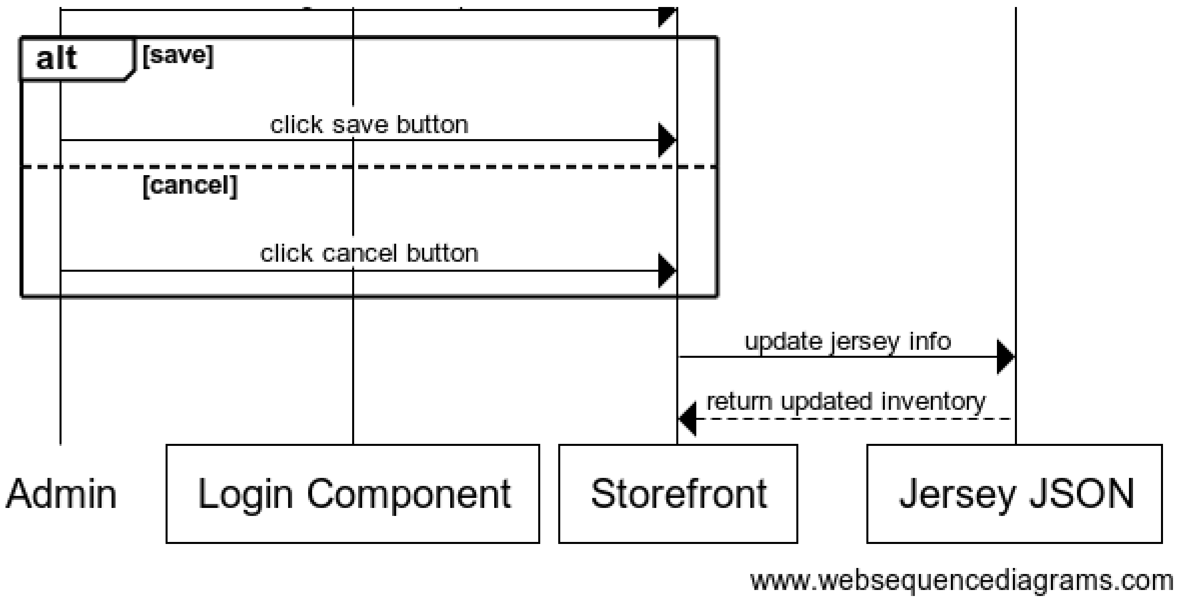
The user interface will begin with the default page of the storefront. Once there, the user will have the option to login as a customer or admin. If an admin, they will be taken to an inventory management page. In addition, after the customer browses the store, they will navigate to a checkout page where they will be able to pay for their items.df

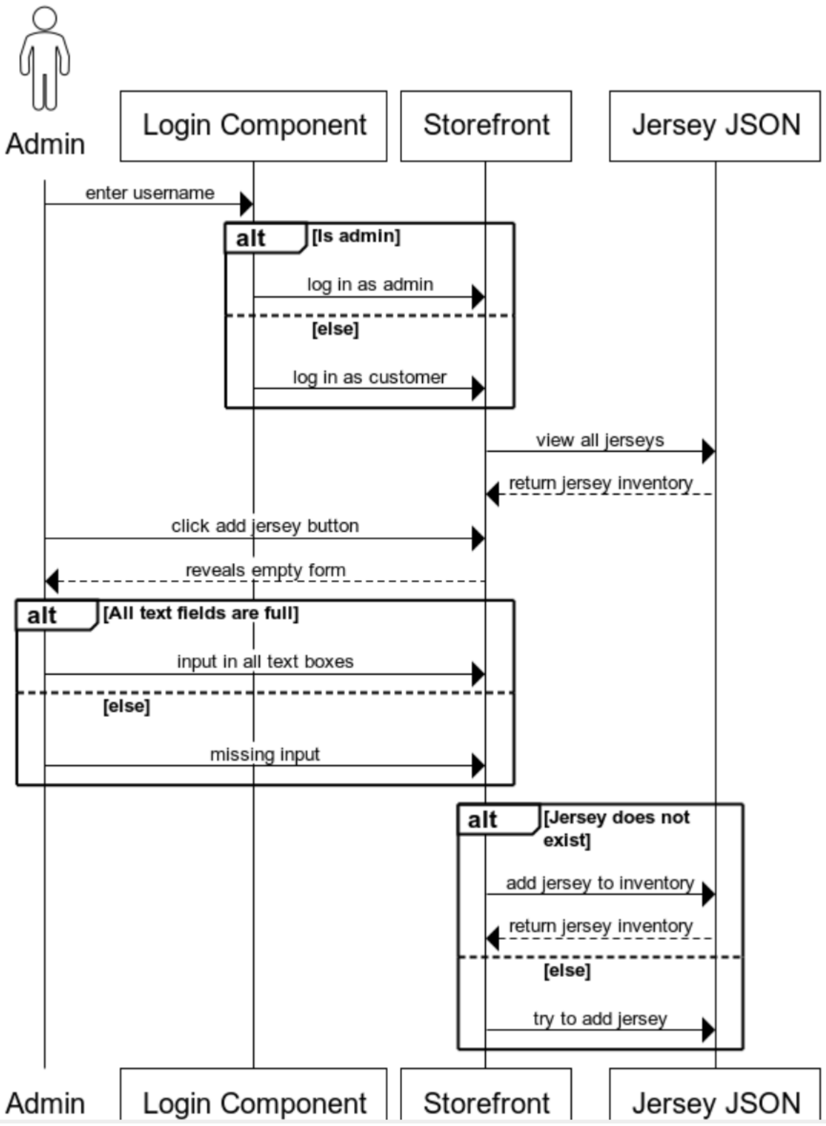
View Tier

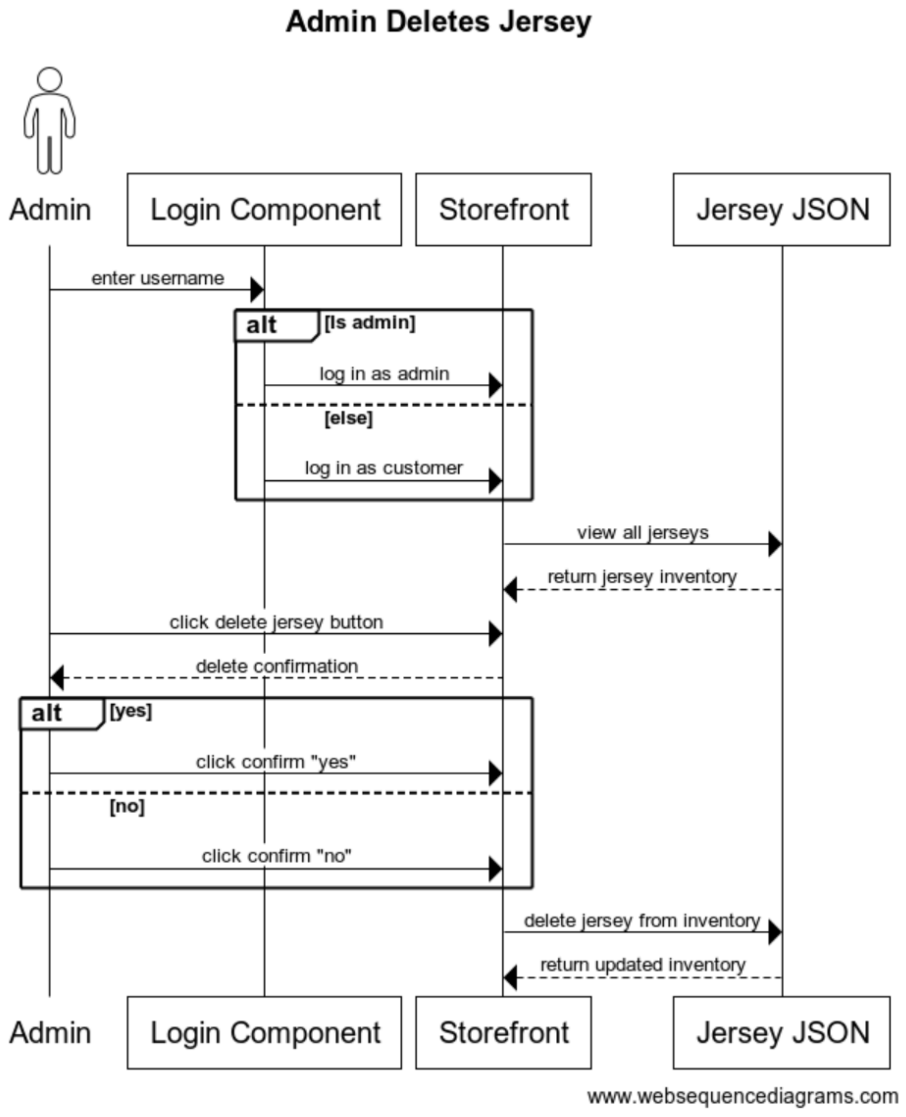
The View Tier UI of the Estore should be a cohesive, connected experience in which all components of the UI are somehow interconnected. From the very beginning of the experience, the login page registers and confirms information about the user, whether they are an admin or not, and their username. This page also holds the accessibility settings relating to the UI, so that different users of varying colorblinness can use the store. If they are an admin, denoted by the 'admin' username, they are taken to a seperate page from the rest of the estore, in which they are able to add to, modify, and delete the existing inventory. Otherwise, if they are a regular user, they are taken to the main page of the estore. In this page, the user is able to browse the selection of jerseys and search for any specific one they want. Once they have decided on their selection(s), they are able to add those jerseys to their cart, which will persist if not emptied or checked out. After they view the cart, they are able to navigate to a checkout form in which the cart will empty and they will purchase their products.

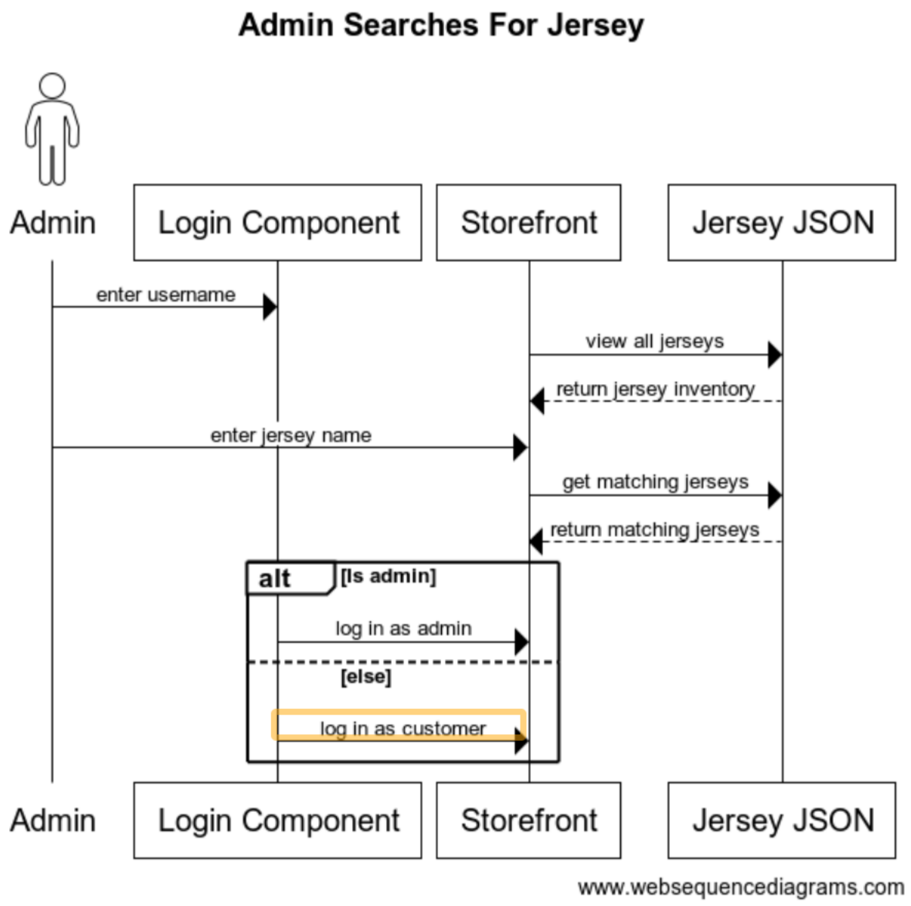

Customer Changes Accessibility Settings
Customer
Login Component
Store
press accessibility button
dropdown options
select an option
change color
Customer
Login Component
Store
www.websequencediagrams.com

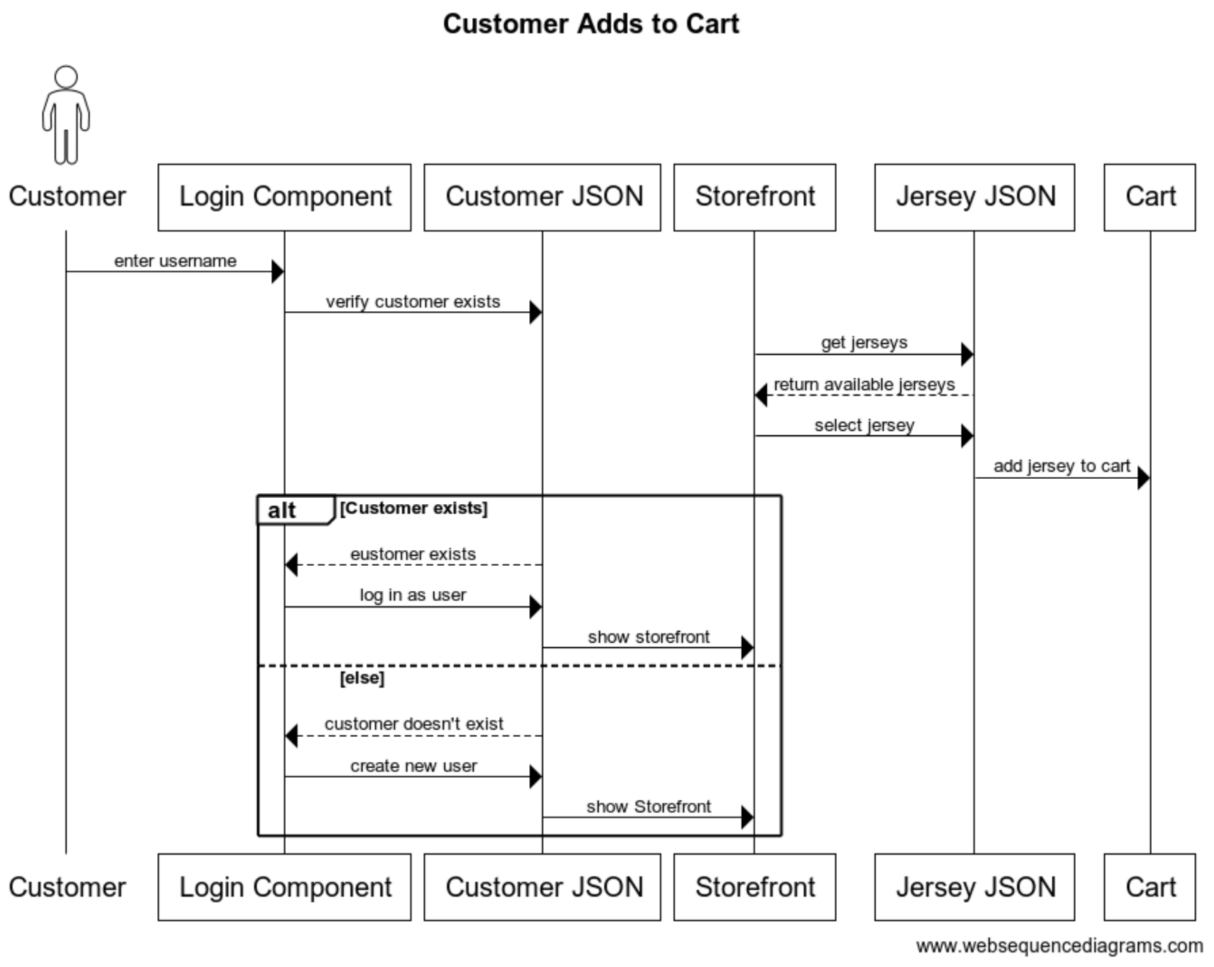

Admin Updates Jersey
Admin
Login Component
Storefront
Jersey JSON
enter username
alt
[Is admin]
log in as admin
[else]
log in as customer
view all jerseys
return jersey inventory
click jersey button
get specific jersey
return jersey details
reveal text boxes with w/ present info
change text box input

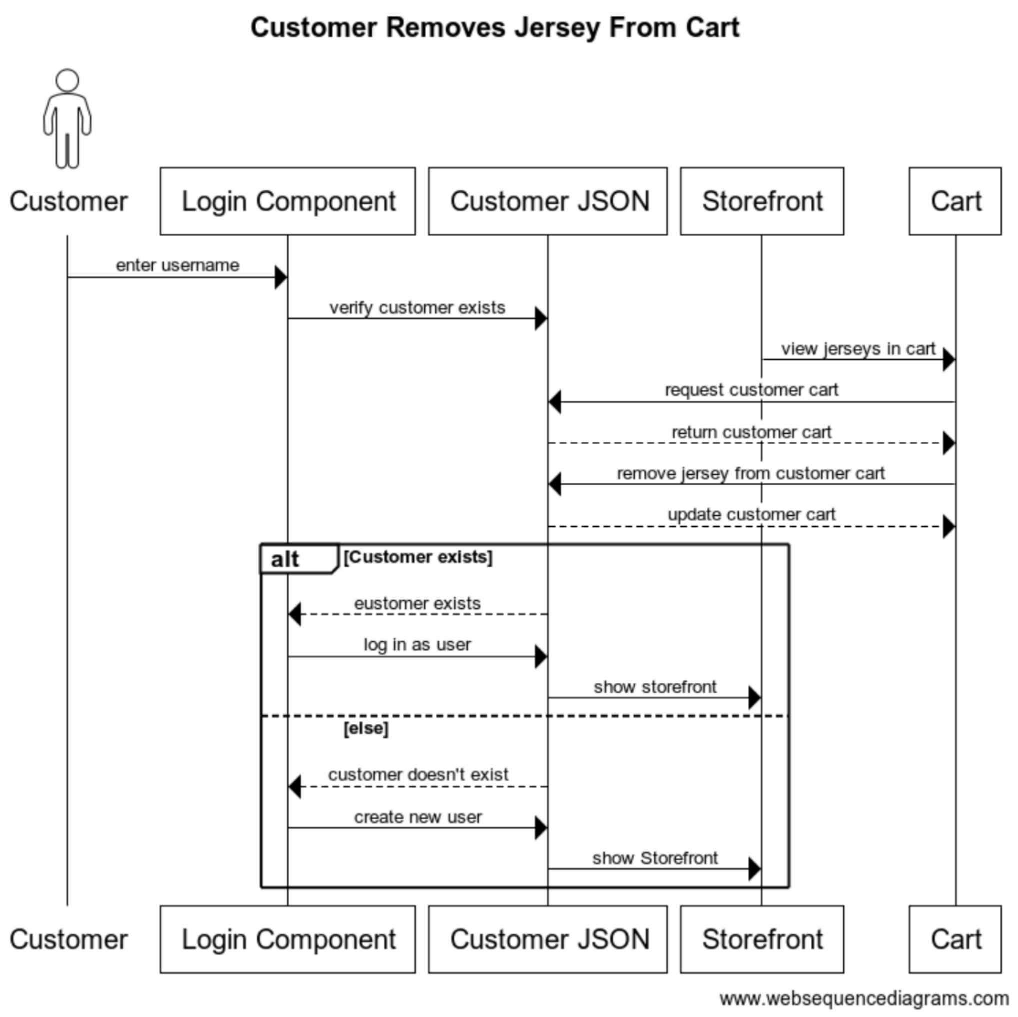

alt [save]
click save button
[cancel]
click cancel button
update jersey info
return updated inventory
Admin
Login Component
Storefront
Jersey JSON
www.websequencediagrams.com

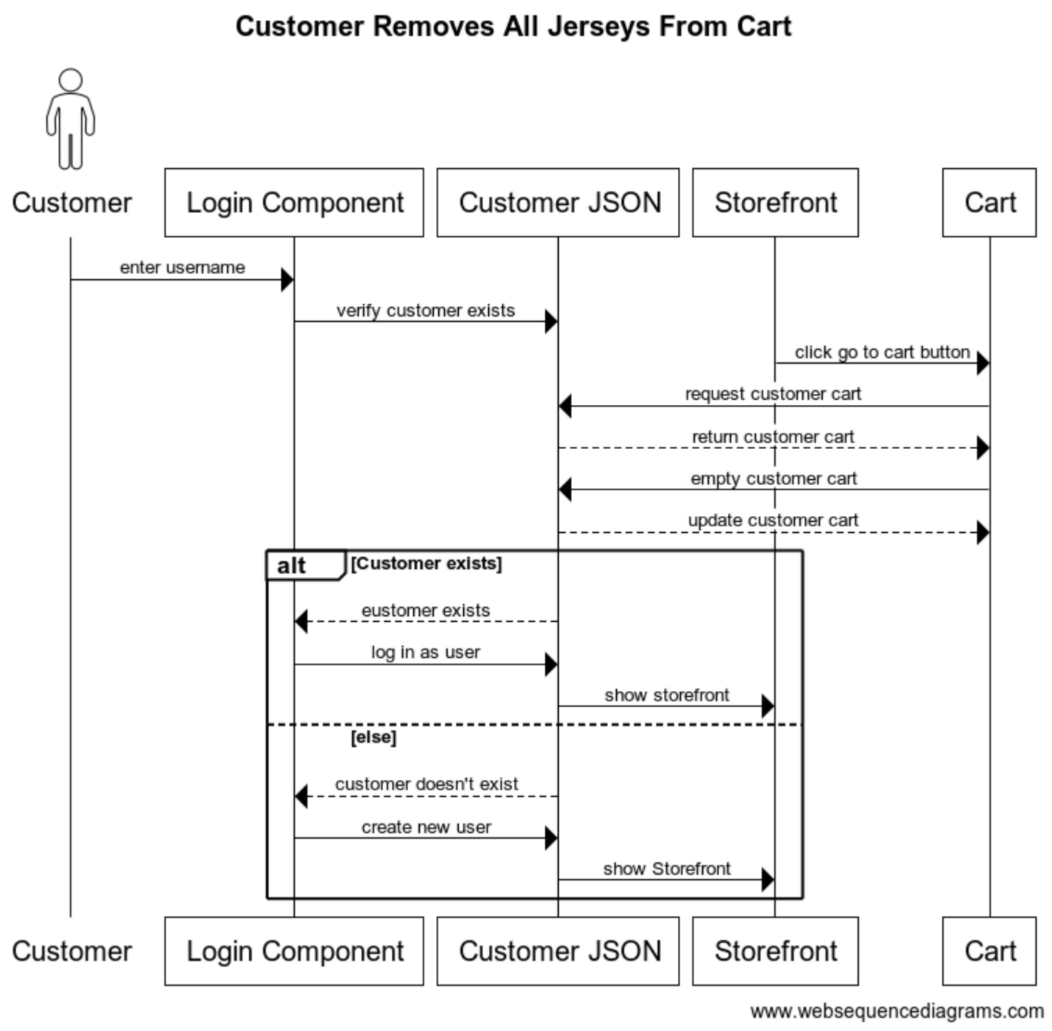

Admin
Login Component
Storefront
Jersey JSON
enter username
alt [Is admin]
log in as admin
[else]
log in as customer
view all jerseys
return jersey inventory
click add jersey button
reveals empty form
alt [All text fields are full]
input in all text boxes
[else]
missing input
alt [Jersey does not exist]
add jersey to inventory
return jersey inventory
[else]
try to add jersey

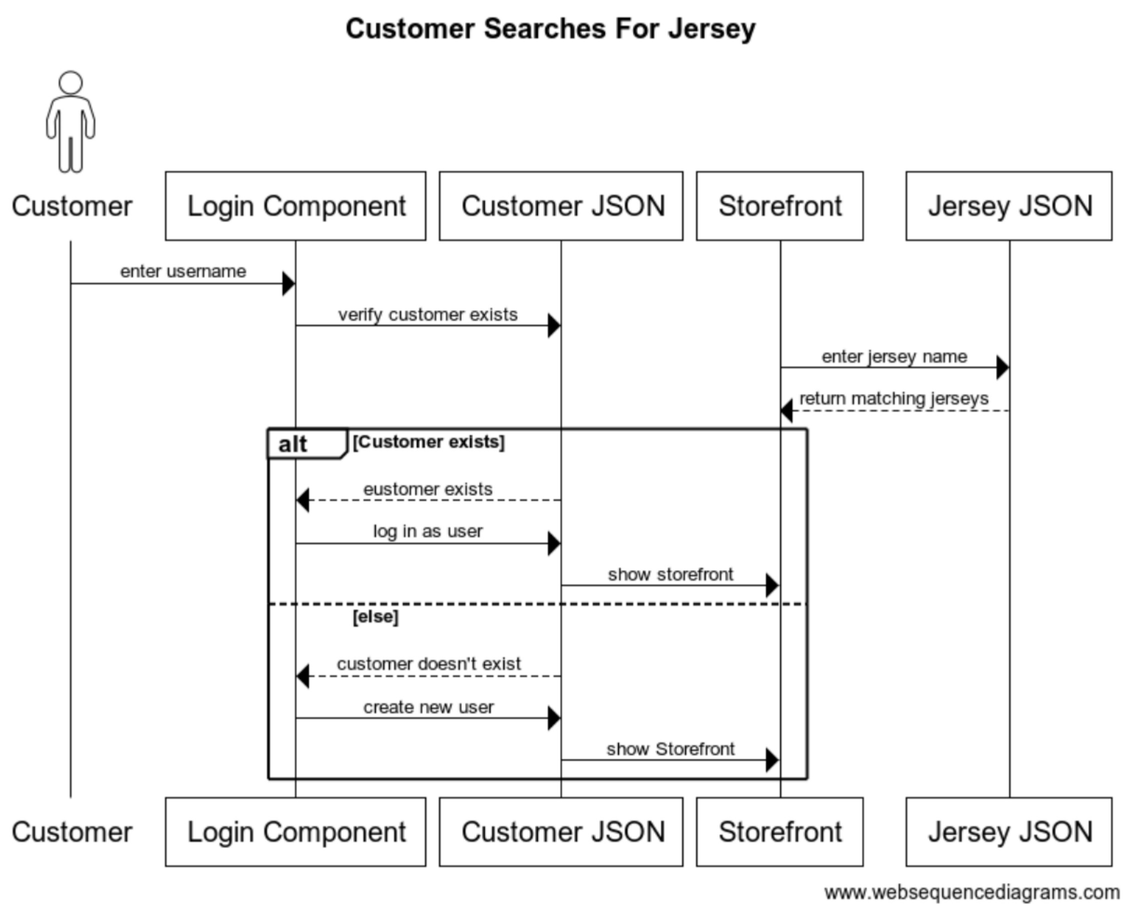

Admin Deletes Jersey
Admin
Login Component
Storefront
Jersey JSON
enter username
alt [Is admin]
log in as admin
[else]
log in as customer
view all jerseys
return jersey inventory
click delete jersey button
delete confirmation
alt [yes]
click confirm "yes"
[no]
click confirm "no"
delete jersey from inventory
return updated inventory
www.websequencediagrams.com


Admin Searches For Jersey
Admin
Login Component
Storefront
Jersey JSON
enter username
view all jerseys
return jersey inventory
enter jersey name
get matching jerseys
return matching jerseys
alt
[Is admin]
log in as admin
[else]
log in as customer
Admin
Login Component
Storefront
Jersey JSON
www.websequencediagrams.com

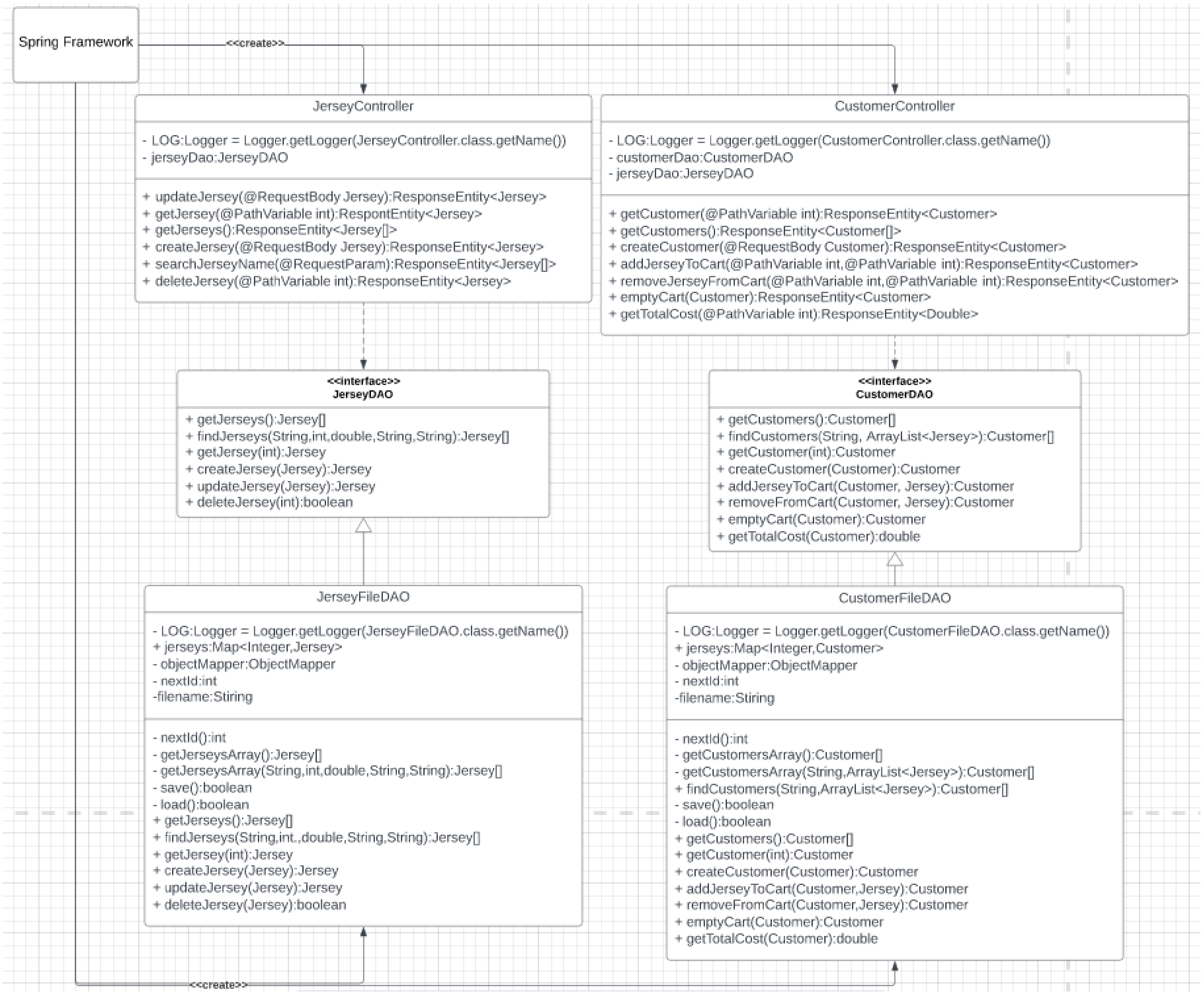

Customer Adds to Cart
Customer
Login Component
Customer JSON
Storefront
Jersey JSON
Cart
enter username
verify customer exists
get jerseys
return available jerseys
select jersey
add jersey to cart
alt
[Customer exists]
customer exists
log in as user
show storefront
[else]
customer doesn't exist
create new user
show Storefront
www.websequencediagrams.com


Customer Removes Jersey From Cart
Customer
Login Component
Customer JSON
Storefront
Cart
enter username
verify customer exists
view jerseys in cart
request customer cart
return customer cart
remove jersey from customer cart
update customer cart
alt
[Customer exists]
eustomer exists
log in as user
show storefront
[else]
customer doesn't exist
create new user
show Storefront
www.websequencediagrams.com


Customer Removes All Jerseys From Cart
Customer
Login Component
Customer JSON
Storefront
Cart
enter username
verify customer exists
click go to cart button
request customer cart
return customer cart
empty customer cart
update customer cart
alt [Customer exists]
customer exists
log in as user
show storefront
[else]
customer doesn't exist
create new user
show Storefront
www.websequencediagrams.com



ViewModel Tier


Spring Framework
<<create>>
JerseyController
- LOG:Logger = Logger.getLogger(JerseyController.class.getName())
- jerseyDao:JerseyDAO
+ updateJersey(@RequestBody Jersey):ResponseEntity<Jersey>
+ getJersey(@PathVariable int):RespontEntity<Jersey>
+ getJerseys():ResponseEntity<Jersey[]>
+ createJersey(@RequestBody Jersey):ResponseEntity<Jersey>
+ searchJerseyName(@RequestParam):ResponseEntity<Jersey[]>
+ deleteJersey(@PathVariable int):ResponseEntity<Jersey>
CustomerController
- LOG:Logger = Logger.getLogger(CustomerController.class.getName())
- customerDao:CustomerDAO
- jerseyDao:JerseyDAO
+ getCustomer(@PathVariable int):ResponseEntity<Customer>
+ getCustomers():ResponseEntity<Customer[]>
+ createCustomer(@RequestBody Customer):ResponseEntity<Customer>
+ addJerseyToCart(@PathVariable int,@PathVariable int):ResponseEntity<Customer>
+ removeJerseyFromCart(@PathVariable int,@PathVariable int):ResponseEntity<Customer>
+ emptyCart(Customer):ResponseEntity<Customer>
+ getTotalCost(@PathVariable int):ResponseEntity<Double>
<<interface>>
JerseyDAO
+ getJerseys():Jersey[]
+ findJerseys(String,int,double,String,String):Jersey[]
+ getJersey(int):Jersey
+ createJersey(Jersey):Jersey
+ updateJersey(Jersey):Jersey
+ deleteJersey(int):boolean
<<interface>>
CustomerDAO
+ getCustomers():Customer[]
+ findCustomers(String, ArrayList<Jersey>):Customer[]
+ getCustomer(int):Customer
+ createCustomer(Customer):Customer
+ addJerseyToCart(Customer, Jersey):Customer
+ removeFromCart(Customer, Jersey):Customer
+ emptyCart(Customer):Customer
+ getTotalCost(Customer):double
JerseyFileDAO
- LOG:Logger = Logger.getLogger(JerseyFileDAO.class.getName())
+ jerseys:Map<Integer,Jersey>
- objectMapper:ObjectMapper
- nextId:int
-filename:Stiring
- nextId():int
- getJerseysArray():Jersey[]
- getJerseysArray(String,int,double,String,String):Jersey[]
- save():boolean
- load():boolean
+ getJerseys():Jersey[]
+ findJerseys(String,int.,double,String,String):Jersey[]
+ getJersey(int):Jersey
+ createJersey(Jersey):Jersey
+ updateJersey(Jersey):Jersey
+ deleteJersey(Jersey):boolean
CustomerFileDAO
- LOG:Logger = Logger.getLogger(CustomerFileDAO.class.getName())
+ jerseys:Map<Integer,Customer>
- objectMapper:ObjectMapper
- nextId:int
-filename:Stiring
- nextId():int
- getCustomersArray():Customer[]
- getCustomersArray(String,ArrayList<Jersey>):Customer[]
+ findCustomers(String,ArrayList<Jersey>):Customer[]
- save():boolean
- load():boolean
+ getCustomers():Customer[]
+ getCustomer(int):Customer
+ createCustomer(Customer):Customer
+ addJerseyToCart(Customer,Jersey):Customer
+ removeFromCart(Customer,Jersey):Customer
+ emptyCart(Customer):Customer
+ getTotalCost(Customer):double
<<create>>

> The main purpose of these classes is to provide persistence of the information in our json files. A shared method between these classes is *save()* and *load()*.
>
> - **save()** - is called when making changes to the json file
> - **load()** - is called when wanting to reload the json file to get its most recent changes

CustomerFileDAO

This class **inherits** from CustomerDAO and uses this in the CustomerController as a form of dependency injection

Attribute	Type	Purpose
LOG	Logger	to log messages
customers	Map<Integer, Customer>	provides a local cache of the customer objects
objectMapper	ObjectMapper	provides conversion between customer objects and JSON text
nextId	int	the next id to assign to a new customer

Attribute	Type	Purpose
filename	String	filename to read from and write to

This class is for persisting the information of each of the customers carts and other information. In this class you can find a customer, get all the customers, create a customer, add a jersey to the customer's cart, remove an item from the cart, get the total cost of the cart, and empty the entire cart. The error handling is mostly in the methods that deal with interacting with the Customer’s information. So essentially, if the Customer doesn’t exist in the json file, it will return null.

CustomerController

Attribute	Type	Purpose
LOG	Logger	to log messages
customerDAO	CustomerDAO	allows access to CRUD methods that change the json
jerseyDAO	JerseyDAO	allows access to methods to fetch needed jerseys

This class is for handling the REST API requests for the customer resource. In this class you can get a single customer via their id, get all existing customers, create a new customer, add a jersey to a customer's cart, remove a jersey from a customer's cart, empty a customer's cart, and get the total cost of all of the jerseys in the customer's cart. The error handling is dealt with by the DAOs and it will react by sending appropriate HTTP status codes such as 200.OK, 201.CREATED, 409.CONFLICT, 404.NOT_FOUND, and 500.INTERNAL_SERVER_ERROR

JerseyFileDAO

This class **inherits** feom JerseyDAO and uses this in the JerseyController as a form of dependency injection

Attribute	Type	Purpose
LOG	Logger	to log messages
customers	Map<Integer, Jersey>	provides a local cache of the jersey objects
objectMapper	ObjectMapper	provides conversion between jersey objects and JSON text
nextId	int	the next id to assign to a new jersey
filename	String	filename to read from and write to

This class is for persisting the information of each of the jerseys. In this class you can find a jersey, get all the jerseys, create a jersey, get a single jersey, delete a jersey, and update a jersey. The error handling is mostly in the > methods that deal with interacting with the jersey's information. So essentially, if the jersey doesn’t exist in the json > file, it will return null.

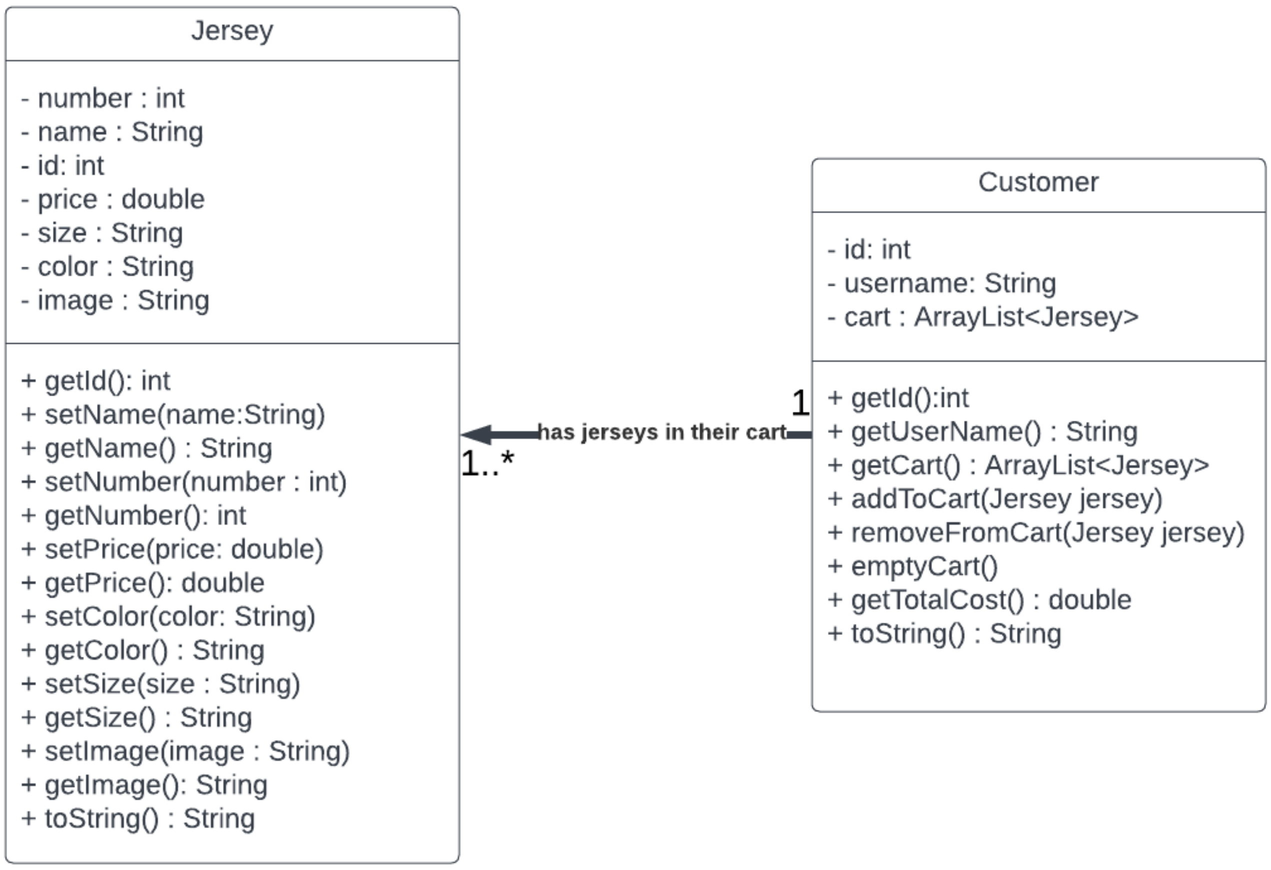
JerseyController

Attribute	Type	Purpose

Attribute	Type	Purpose
LOG	Logger	to log messages
jerseyDAO	JerseyDAO	allows access to CRUD methods that change the json

This class is for handling the REST API requests for the jersey resource. In this class you can get a single jersey via its id, get all existing jerseys, create a new jersey, update an existing jersey, and delete and existing jersey. The error handling is dealt with by the JerseyDAO and it will react by sending appropriate HTTP status codes such as 200. OK, 201.CREATED, 409.CONFLICT, 404.NOT_FOUND, and 500.INTERNAL_SERVER_ERROR

Model Tier



There are two classes that make up our object, that will be the Jersey and Customer class.

Jersey Class

> The jersey class consists of the following attributes:
>
> 1. Id of jersey
> 2. Name
> 3. Size
> 4. Color
> 5. Number (on the jersey)
> 6. Price

> 7. Image These attributes can be accessed through accessors and can be changed through mutators.

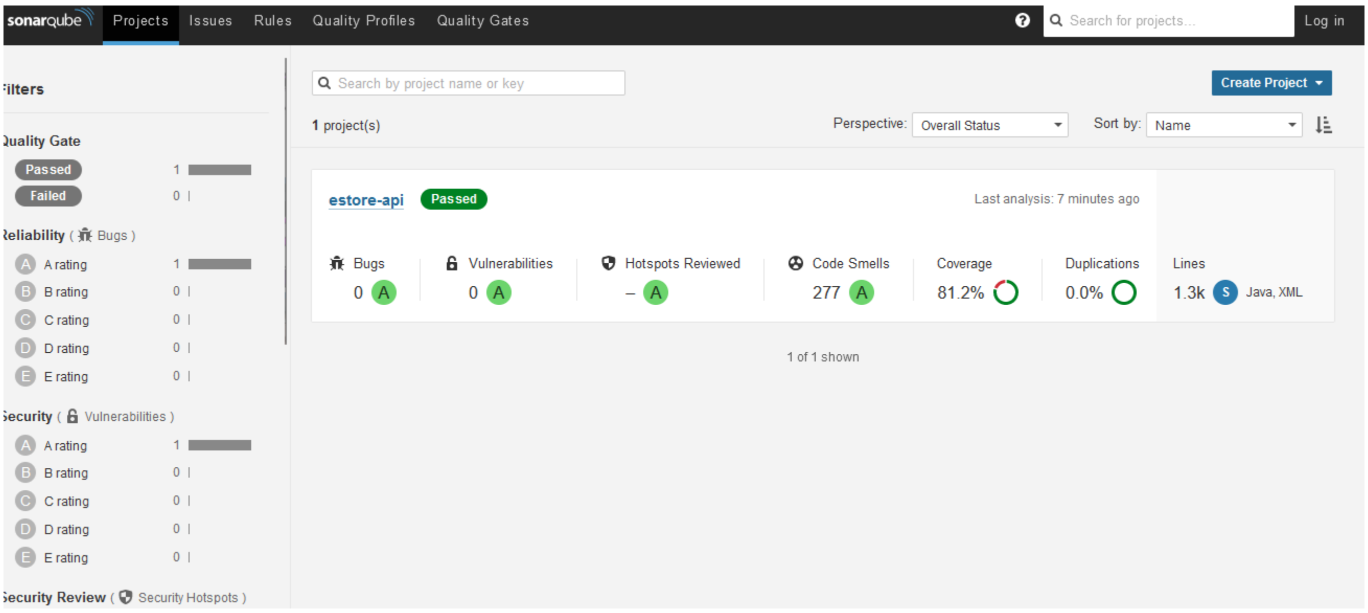
Customer Class

> *In the customer class, there are 3 attributes: id, username and cart. These attributes have various methods in them to access and mutators in them. The only methods that are different from average mutators are the ones for the cart attribute. Since cart is an ArrayList of Jerseys, the user can choose to remove or add > a jersey to the cart or remove all instances of the jersey from the cart.*

> **special methods**
>
> - totalCost() method
>   - that gets the total cost from iterating through the cart arraylist and adding up the prices.
> - EmptyCart() method
>   - a special method that empties out all the instances of the Jerseys in the cart Arraylist

The way that the two classes interact is that the Customer class has a cart that can contain Jerseys, since the Customer can buy different Jerseys.

Static Code Analysis/Design Improvements



ilters

uality Gate

Passed	1
Failed	0

eliability (Bugs)

A rating	1
B rating	0
C rating	0
D rating	0
E rating	0

ecurity (Vulnerabilities)

A rating	1
B rating	0
C rating	0
D rating	0
E rating	0

ecurity Review (Security Hotspots)

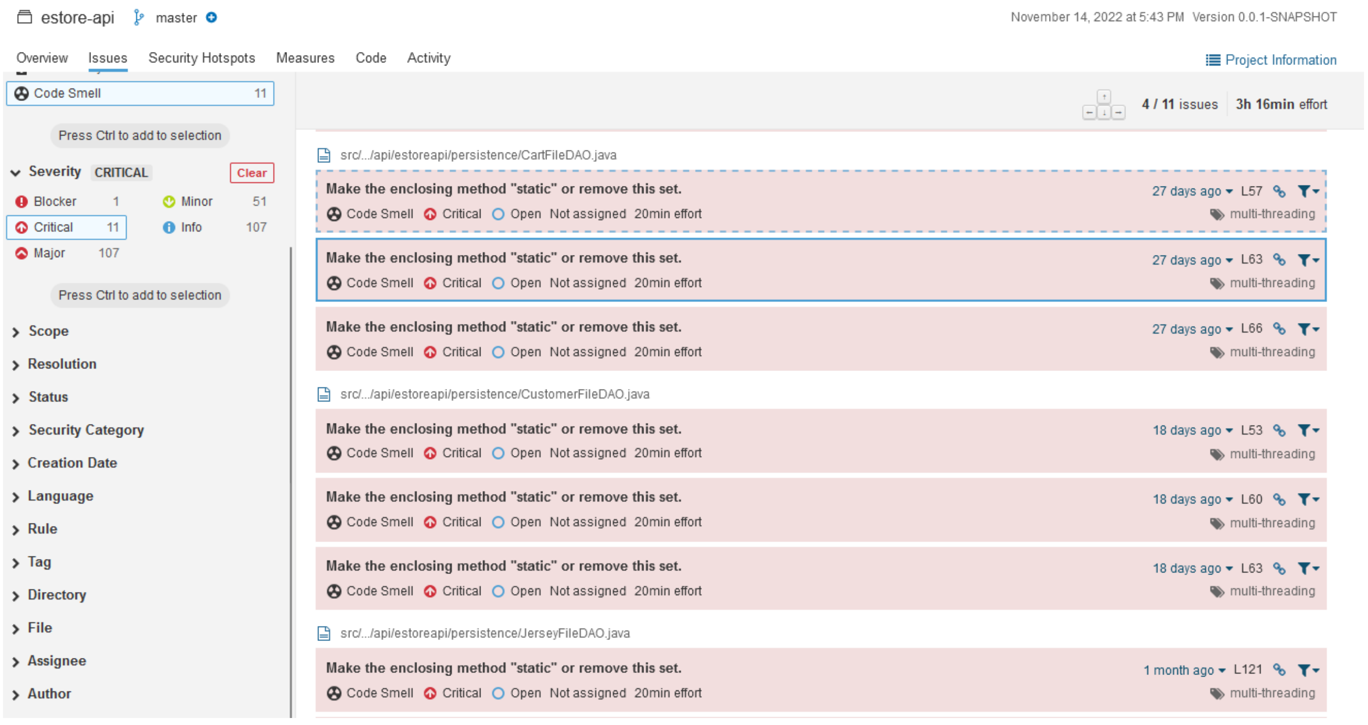
1 project(s) Perspective: Overall Status Sort by: Name

estore-api Passed Last analysis: 7 minutes ago

Bugs	Vulnerabilities	Hotspots Reviewed	Code Smells	Coverage	Duplications	Lines
0 A	0 A	– A	277 A	81.2%	0.0%	1.3k S Java, XML

1 of 1 shown

Overall our API had good coverage, no duplications, bugs or vulnerabilities. One thing that can be improved on our API is that there is many code smells. Most of the major issues were issues with large blocks of code that were unused were commented out instead of deleted. In order to keep our code clean we should have deleted most of these unused blocks. Some of the critical issues were about static methods or hardcoded strings so it would be a good idea to make sure we are using java principles like static right with some of the methods. It would be a good idea to try and get more code coverage as well.



estore-api master

November 14, 2022 at 5:43 PM Version 0.0.1-SNAPSHOT

Overview Issues Security Hotspots Measures Code Activity Project Information

Code Smell 11

Press Ctrl to add to selection

Severity CRITICAL Clear

Blocker	1	Minor	51
Critical	11	Info	107
Major	107		

Press Ctrl to add to selection

Scope
Resolution
Status
Security Category
Creation Date
Language
Rule
Tag
Directory
File
Assignee
Author

4 / 11 issues 3h 16min effort

src/.../api/estoreapi/persistence/CartFileDAO.java

Make the enclosing method "static" or remove this set. — Code Smell, Critical, Open, Not assigned, 20min effort — 27 days ago, L57, multi-threading

Make the enclosing method "static" or remove this set. — Code Smell, Critical, Open, Not assigned, 20min effort — 27 days ago, L63, multi-threading

Make the enclosing method "static" or remove this set. — Code Smell, Critical, Open, Not assigned, 20min effort — 27 days ago, L66, multi-threading

src/.../api/estoreapi/persistence/CustomerFileDAO.java

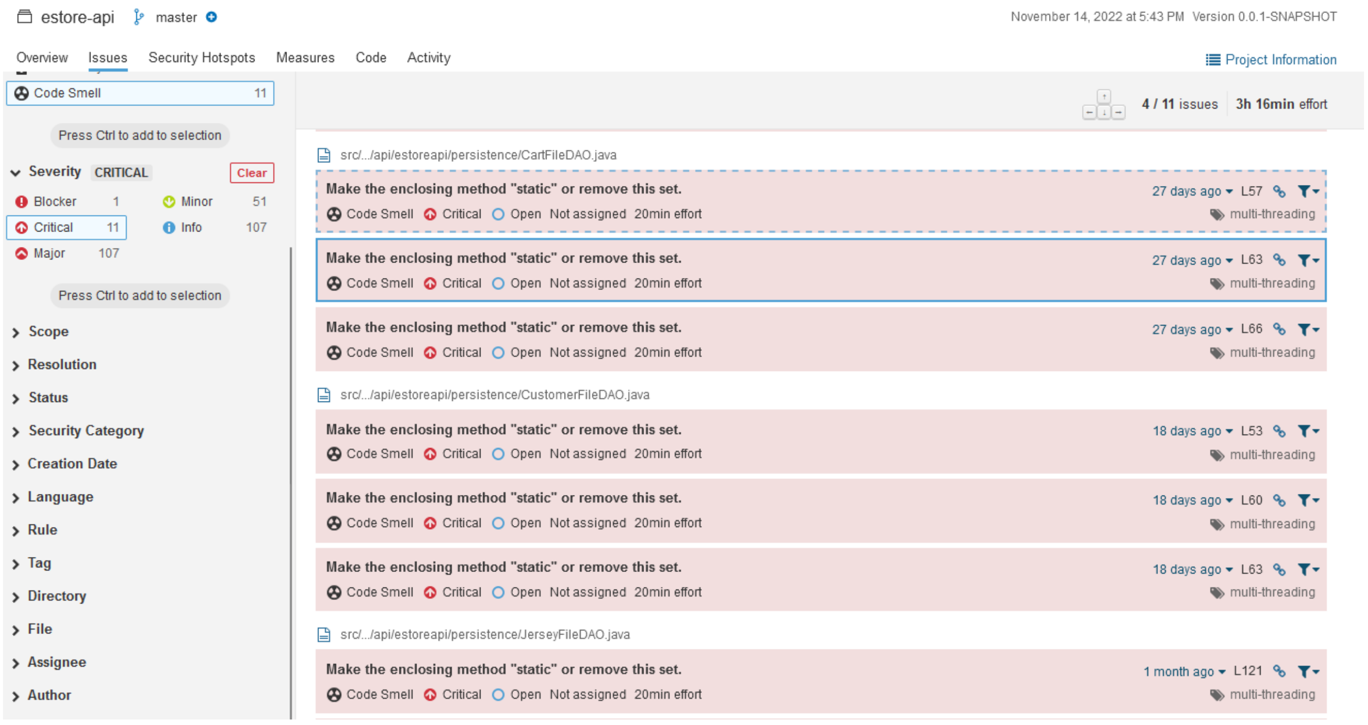
Make the enclosing method "static" or remove this set. — Code Smell, Critical, Open, Not assigned, 20min effort — 18 days ago, L53, multi-threading

Make the enclosing method "static" or remove this set. — Code Smell, Critical, Open, Not assigned, 20min effort — 18 days ago, L60, multi-threading

Make the enclosing method "static" or remove this set. — Code Smell, Critical, Open, Not assigned, 20min effort — 18 days ago, L63, multi-threading

src/.../api/estoreapi/persistence/JerseyFileDAO.java

Make the enclosing method "static" or remove this set. — Code Smell, Critical, Open, Not assigned, 20min effort — 1 month ago, L121, multi-threading



estore-api master

November 14, 2022 at 5:43 PM Version 0.0.1-SNAPSHOT

Overview Issues Security Hotspots Measures Code Activity Project Information

Code Smell 11

Press Ctrl to add to selection

Severity CRITICAL Clear

Blocker 1 Minor 51
Critical 11 Info 107
Major 107

Press Ctrl to add to selection

Scope
Resolution
Status
Security Category
Creation Date
Language
Rule
Tag
Directory
File
Assignee
Author

4 / 11 issues 3h 16min effort

src/.../api/estoreapi/persistence/CartFileDAO.java

Make the enclosing method "static" or remove this set. — Code Smell, Critical, Open, Not assigned, 20min effort — 27 days ago, L57, multi-threading

Make the enclosing method "static" or remove this set. — Code Smell, Critical, Open, Not assigned, 20min effort — 27 days ago, L63, multi-threading

Make the enclosing method "static" or remove this set. — Code Smell, Critical, Open, Not assigned, 20min effort — 27 days ago, L66, multi-threading

src/.../api/estoreapi/persistence/CustomerFileDAO.java

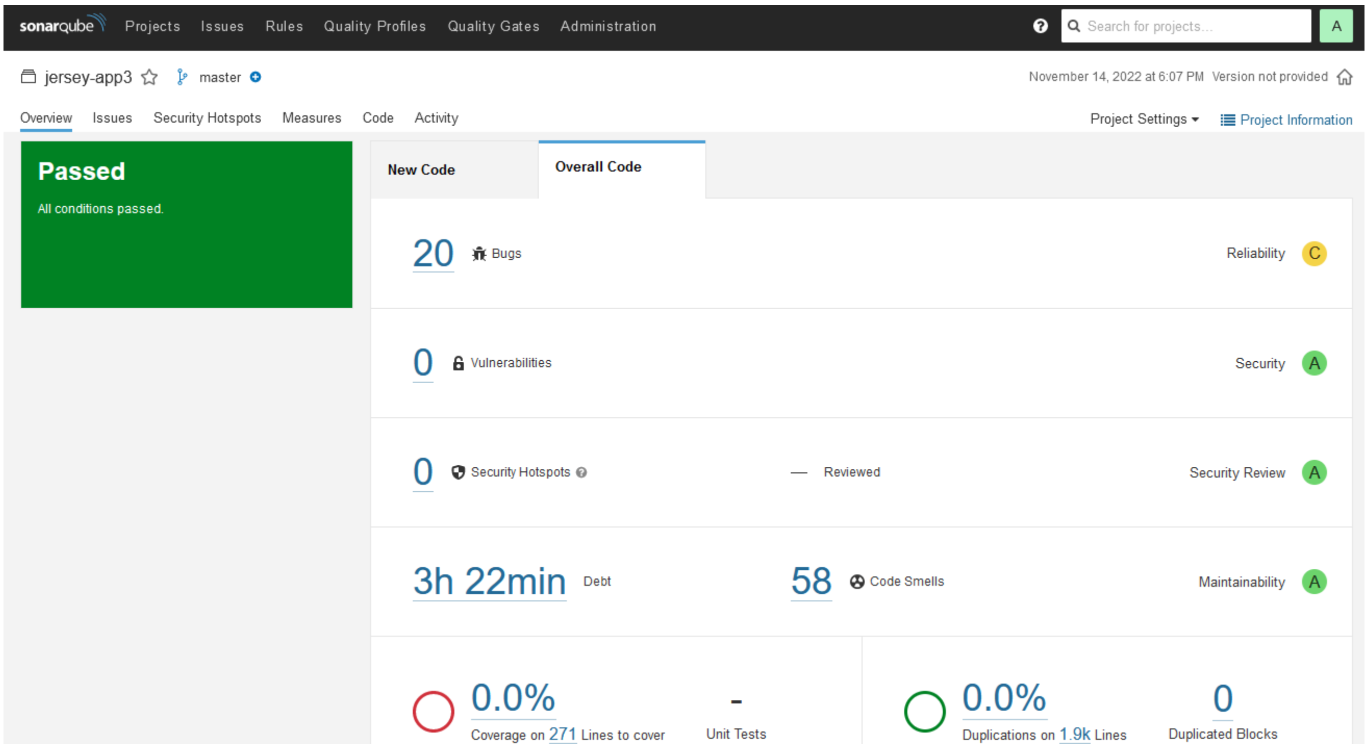
Make the enclosing method "static" or remove this set. — Code Smell, Critical, Open, Not assigned, 20min effort — 18 days ago, L53, multi-threading

Make the enclosing method "static" or remove this set. — Code Smell, Critical, Open, Not assigned, 20min effort — 18 days ago, L60, multi-threading

Make the enclosing method "static" or remove this set. — Code Smell, Critical, Open, Not assigned, 20min effort — 18 days ago, L63, multi-threading

src/.../api/estoreapi/persistence/JerseyFileDAO.java

Make the enclosing method "static" or remove this set. — Code Smell, Critical, Open, Not assigned, 20min effort — 1 month ago, L121, multi-threading



Passed
All conditions passed.

20 Bugs — Reliability C

0 Vulnerabilities — Security A

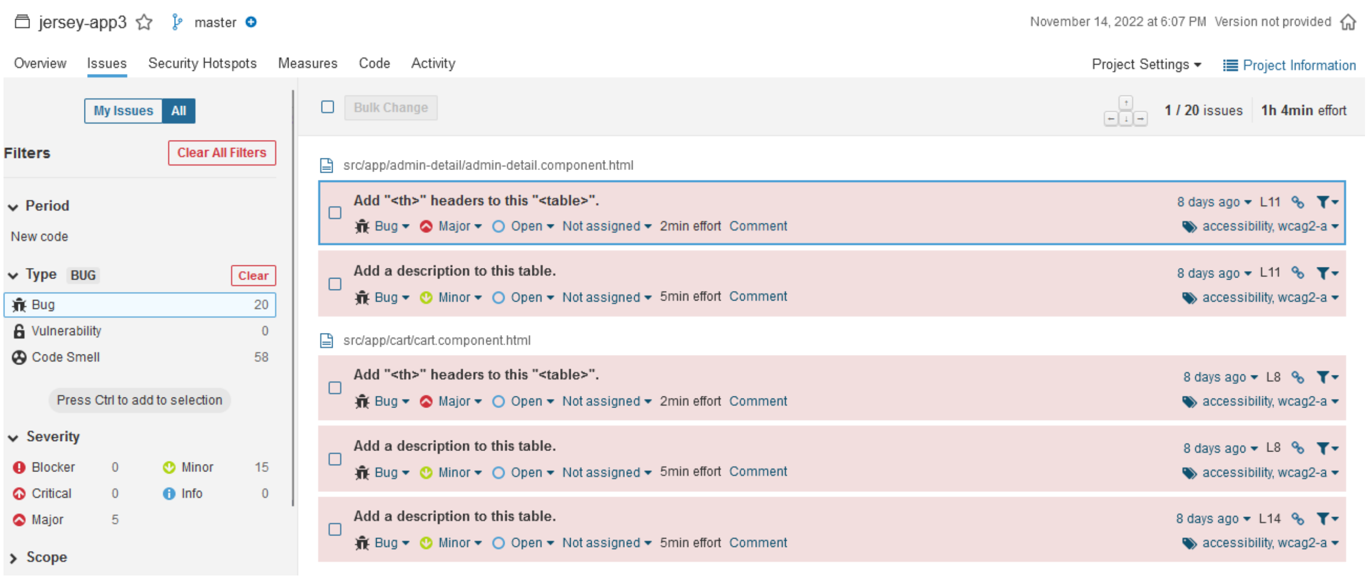
0 Security Hotspots — Reviewed — Security Review A

3h 22min Debt — 58 Code Smells — Maintainability A

0.0% Coverage on 271 Lines to cover — - Unit Tests

0.0% Duplications on 1.9k Lines — 0 Duplicated Blocks

Overall our UI did have a good number of bugs but everything else was good. The bugs boil down to adding header tags or description to some of the tables that we used within our UI. Some other issues were some commented out code and deprecated attributes in the css. In the future it would be good to be more descriptive and use good standards when it comes to certain HTML elements such as tables. We also need to utilize the power of Angular better and understand it more in order to be able to work more effectively.



Bug	20
Vulnerability	0
Code Smell	58

Blocker	0	Minor	15
Critical	0	Info	0
Major	5		

1 / 20 issues 1h 4min effort

src/app/admin-detail/admin-detail.component.html

Add "<th>" headers to this "<table>". — Bug Major Open Not assigned 2min effort Comment — 8 days ago L11 — accessibility, wcag2-a

Add a description to this table. — Bug Minor Open Not assigned 5min effort Comment — 8 days ago L11 — accessibility, wcag2-a

src/app/cart/cart.component.html

Add "<th>" headers to this "<table>". — Bug Major Open Not assigned 2min effort Comment — 8 days ago L8 — accessibility, wcag2-a

Add a description to this table. — Bug Minor Open Not assigned 5min effort Comment — 8 days ago L8 — accessibility, wcag2-a

Add a description to this table. — Bug Minor Open Not assigned 5min effort Comment — 8 days ago L14 — accessibility, wcag2-a

Testing

> *This section will provide information about the testing performed and the results of the testing.*

Acceptance Testing

How many user stories have...	Number

How many user stories have...	Number
passed	20
some acceptance criteria failing	5
that havent been tested yet	6

Issues During Acceptance testing

> - There is an issue with when after you add your jersey to your cart, and then you get its total cost of the entire cart, but when you try to remove it from the cart right after it doesnt allow you to delete anything from it
> - Customers not being able to be created during the login process, this is being dealt with by refactoring the code to not include the Cart object inside of a Customer object since it may have lead to some problems
> - Have to redo testing for Controller methods for the Customer because of refactoring, but otherwise it should be fine

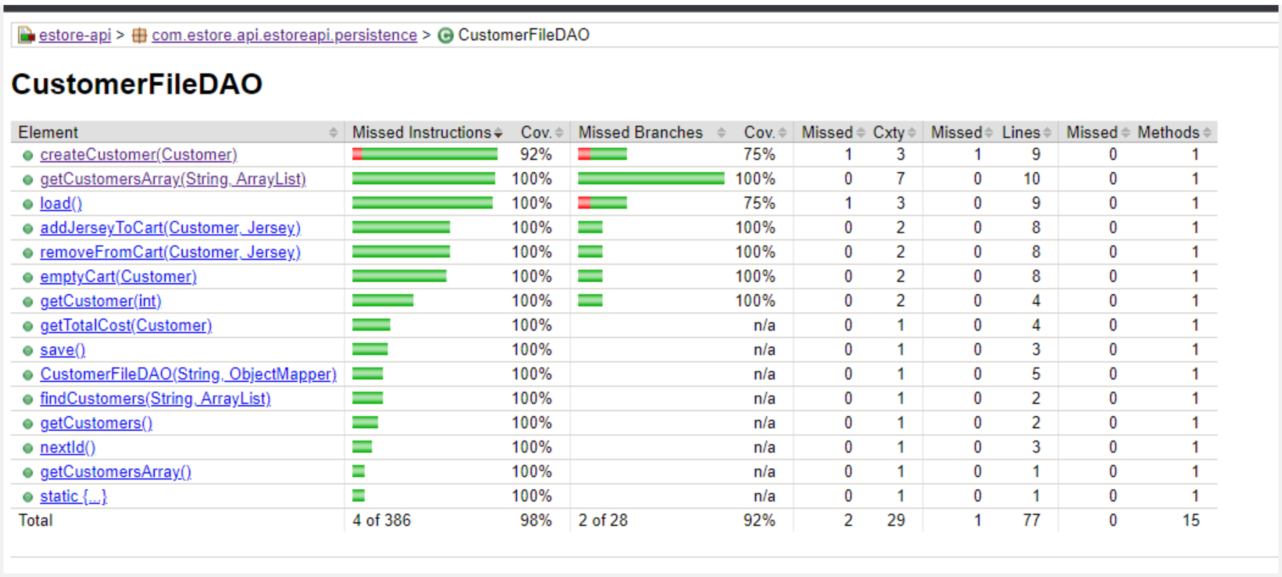
Unit Testing and Code Coverage

Unit Testing Strategy

> The goal we want to achieve is 90%-100% code coverage. In order to get to that goal, we have decided to do thorough testing in order to get the highest coverage possible. This is > our strategy thus far.
>
> 1. Work on one method at a time
> 2. Make sure to write tests for the happy path and then the “unhappy path”
> 3. Make sure that you write tests that contain errors to see if the method is able to catch and deal with them
> 4. If there is a problem with debugging what went wrong in unit test, consult other group members or professor for help

Code Coverage As of 11/15/22

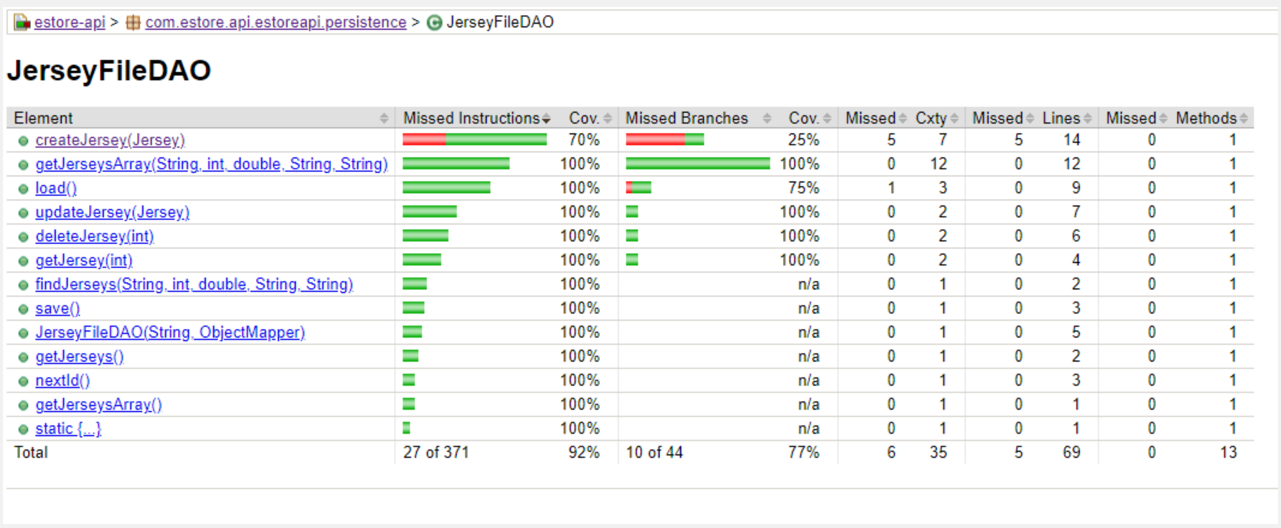
> ## Controller Tier
>
> ## Persistence Tier



estore-api > com.estore.api.estoreapi.persistence > CustomerFileDAO

CustomerFileDAO

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods
createCustomer(Customer)		92%		75%	1	3	1	9	0	1
getCustomersArray(String, ArrayList)		100%		100%	0	7	0	10	0	1
load()		100%		75%	1	3	0	9	0	1
addJerseyToCart(Customer, Jersey)		100%		100%	0	2	0	8	0	1
removeFromCart(Customer, Jersey)		100%		100%	0	2	0	8	0	1
emptyCart(Customer)		100%		100%	0	2	0	8	0	1
getCustomer(int)		100%		100%	0	2	0	4	0	1
getTotalCost(Customer)		100%		n/a	0	1	0	4	0	1
save()		100%		n/a	0	1	0	3	0	1
CustomerFileDAO(String, ObjectMapper)		100%		n/a	0	1	0	5	0	1
findCustomers(String, ArrayList)		100%		n/a	0	1	0	2	0	1
getCustomers()		100%		n/a	0	1	0	2	0	1
nextId()		100%		n/a	0	1	0	3	0	1
getCustomersArray()		100%		n/a	0	1	0	1	0	1
static {...}		100%		n/a	0	1	0	1	0	1
Total	4 of 386	98%	2 of 28	92%	2	29	1	77	0	15

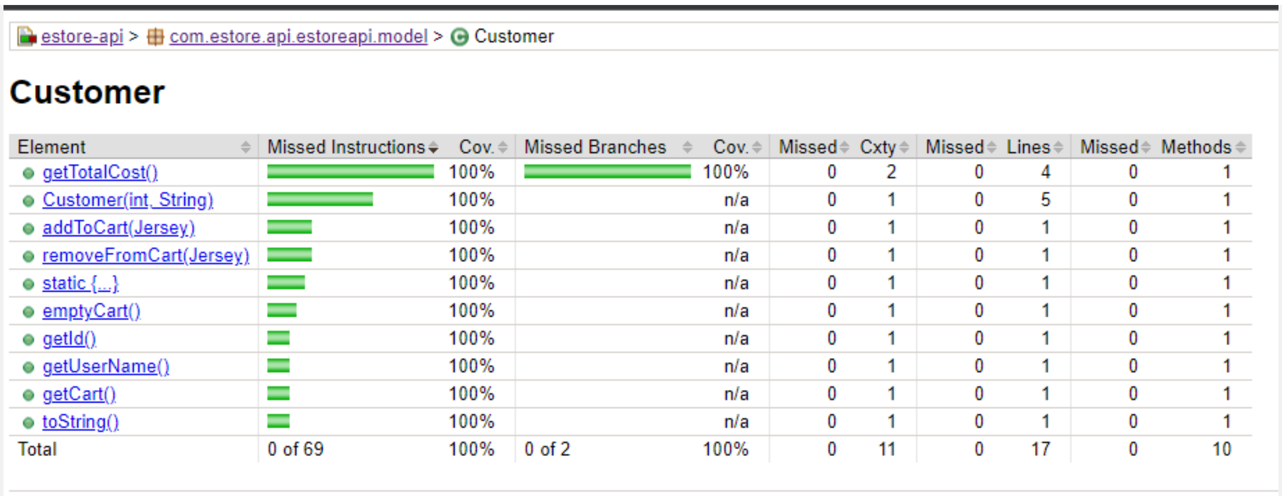


estore-api > com.estore.api.estoreapi.persistence > JerseyFileDAO

JerseyFileDAO

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods
createJersey(Jersey)		70%		25%	5	7	5	14	0	1
getJerseysArray(String, int, double, String, String)		100%		100%	0	12	0	12	0	1
load()		100%		75%	1	3	0	9	0	1
updateJersey(Jersey)		100%		100%	0	2	0	7	0	1
deleteJersey(int)		100%		100%	0	2	0	6	0	1
getJersey(int)		100%		100%	0	2	0	4	0	1
findJerseys(String, int, double, String, String)		100%		n/a	0	1	0	2	0	1
save()		100%		n/a	0	1	0	3	0	1
JerseyFileDAO(String, ObjectMapper)		100%		n/a	0	1	0	5	0	1
getJerseys()		100%		n/a	0	1	0	2	0	1
nextId()		100%		n/a	0	1	0	3	0	1
getJerseysArray()		100%		n/a	0	1	0	1	0	1
static {...}		100%		n/a	0	1	0	1	0	1
Total	27 of 371	92%	10 of 44	77%	6	35	5	69	0	13

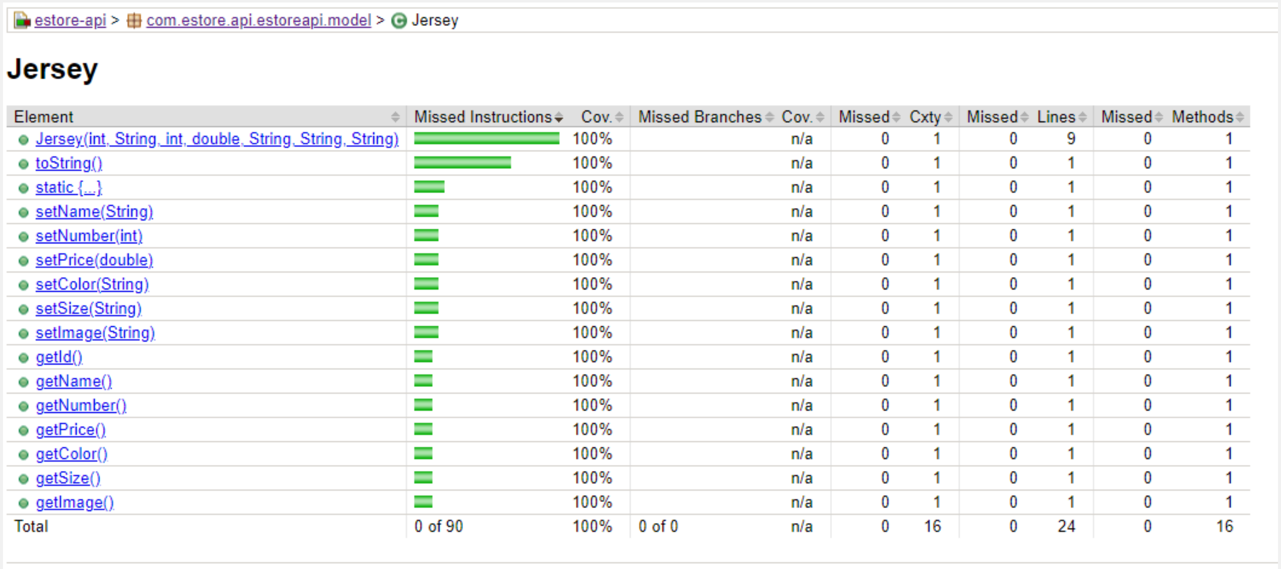
Model Tier



estore-api > com.estore.api.estoreapi.model > Customer

Customer

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods
getTotalCost()	🟩	100%	🟩	100%	0	2	0	4	0	1
Customer(int, String)	🟩	100%		n/a	0	1	0	5	0	1
addToCart(Jersey)	🟩	100%		n/a	0	1	0	1	0	1
removeFromCart(Jersey)	🟩	100%		n/a	0	1	0	1	0	1
static {...}	🟩	100%		n/a	0	1	0	1	0	1
emptyCart()	🟩	100%		n/a	0	1	0	1	0	1
getId()	🟩	100%		n/a	0	1	0	1	0	1
getUserName()	🟩	100%		n/a	0	1	0	1	0	1
getCart()	🟩	100%		n/a	0	1	0	1	0	1
toString()	🟩	100%		n/a	0	1	0	1	0	1
Total	0 of 69	100%	0 of 2	100%	0	11	0	17	0	10



estore-api > com.estore.api.estoreapi.model > Jersey

Jersey

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods
Jersey(int, String, int, double, String, String, String)	🟩	100%		n/a	0	1	0	9	0	1
toString()	🟩	100%		n/a	0	1	0	1	0	1
static {...}	🟩	100%		n/a	0	1	0	1	0	1
setName(String)	🟩	100%		n/a	0	1	0	1	0	1
setNumber(int)	🟩	100%		n/a	0	1	0	1	0	1
setPrice(double)	🟩	100%		n/a	0	1	0	1	0	1
setColor(String)	🟩	100%		n/a	0	1	0	1	0	1
setSize(String)	🟩	100%		n/a	0	1	0	1	0	1
setImage(String)	🟩	100%		n/a	0	1	0	1	0	1
getId()	🟩	100%		n/a	0	1	0	1	0	1
getName()	🟩	100%		n/a	0	1	0	1	0	1
getNumber()	🟩	100%		n/a	0	1	0	1	0	1
getPrice()	🟩	100%		n/a	0	1	0	1	0	1
getColor()	🟩	100%		n/a	0	1	0	1	0	1
getSize()	🟩	100%		n/a	0	1	0	1	0	1
getImage()	🟩	100%		n/a	0	1	0	1	0	1
Total	0 of 90	100%	0 of 0	n/a	0	16	0	24	0	16

Statement

> As of right now, our code coverage has significantly met our expectations. The only downside as of right now is that our Controller tier has not been entirely tested because of refactoring. Prior to refactoring, we were having a lot of issues with a new Customer being created. It kept on running into the error that it was creating a null object, saying that createNewCustomer() method wasn't working and returning null because of our > null case. But after a lot of troubleshooting, there are a lot of areas where the issue couldve come from e.g. the cart and or customer not created properly or something else. It was an anomaly because our tests all passed in insomnia and in the unit testing, so we weren't sure how it kept on creating a null object instead of a customer. This confused us thoroughly so we started over by getting rid of the Cart class completely and using an ArrayList of Jerseys to represent the Cart in the Customer.