

The background of the slide is a dark, high-contrast photograph of tropical plants, including palm fronds and other long, slender leaves, creating a dense and textured appearance.

# Hobby Web Application Project

By Solomon Boundy

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- I am now training to be a software engineer with QA.

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- I started by building a Jira board with user stories and an ERD in order to gain a better idea of what direction I should take the project
- Once I had a better idea, I started the project



Roadmap

Backlog

Board

Code

Project pages

Add shortcut

Project settings

You're in a team-managed project

[Learn more](#)

Projects / Hobby Web App

Backlog

SB

Epic ▾

Insights

Sprint 1 Add dates (3 issues) 11 0 0 

Start sprint

A-1 As a developer I need to create a repository so that I c... 2 

TO DO ▾

A-2 As A developer I need to create a Spring Project so th... 1 

TO DO ▾

A-3 As a developer I need to create an ERD to see a bluepr... 8 

TO DO ▾

e issue

g (0 issues) 0 0 0 

Create sprint

Add epic /

1

HWA-1

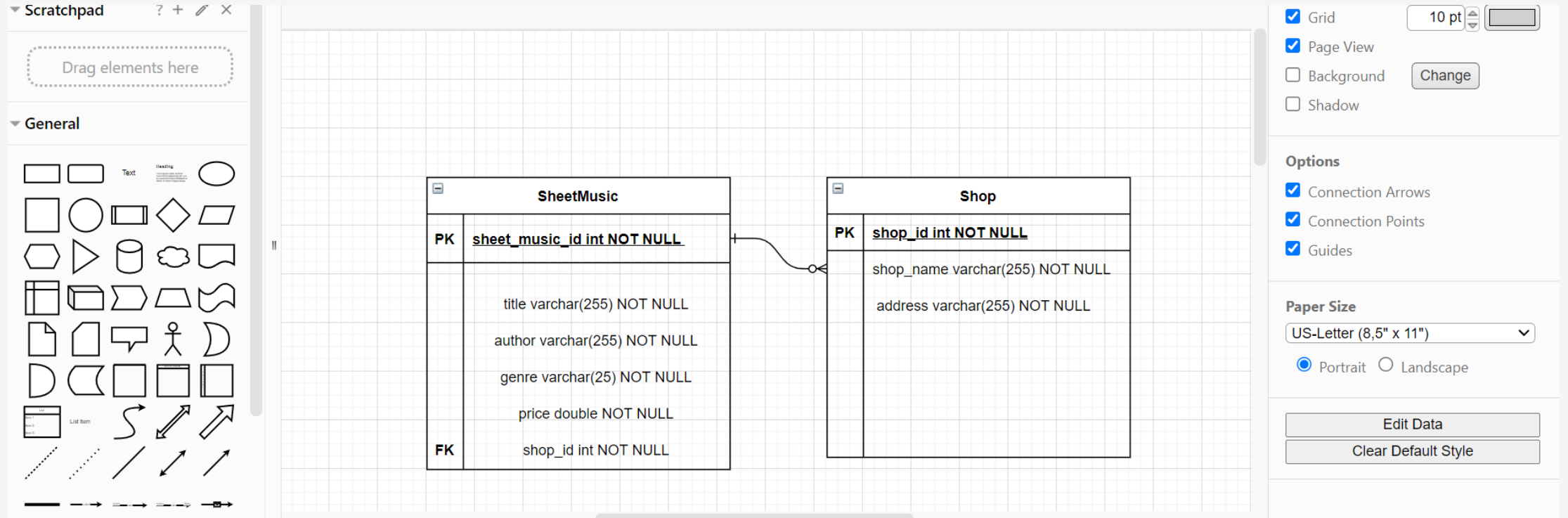
As a developer I need to create a repository so that I can save my Java/JavaScript projects to github

SB

Add a comment...

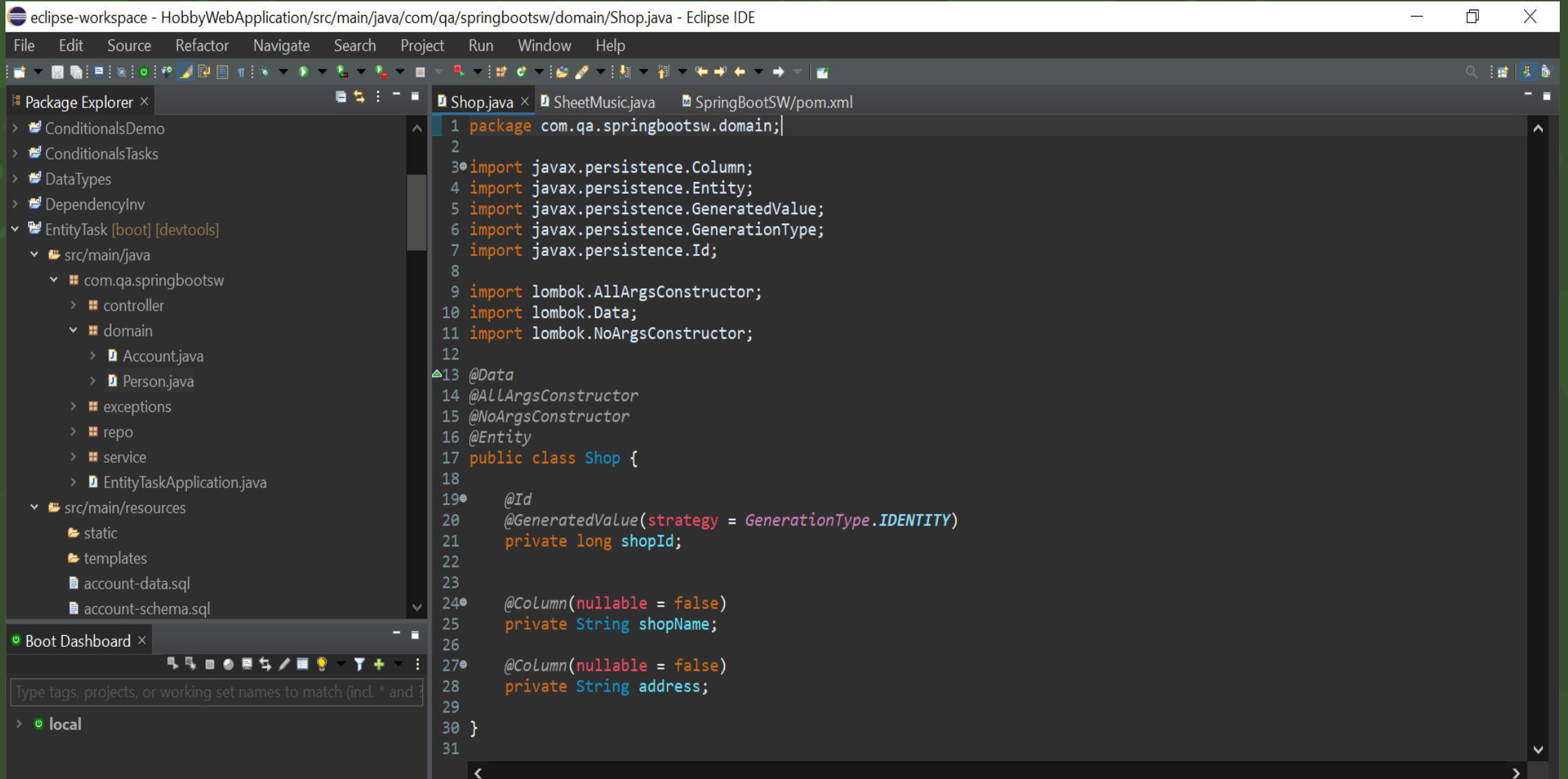
Pro tip: press **M** to comment

- First Draft ERD diagram



# Concept

- After the initial draft of the ERD, I decided to make two tables for my database, one that will take in the shops and one that would take in the sheet music
- So I built two classes in my eclipse project under a 'domain' package so that I could later manipulate the columns of the tables



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- I also needed to create controller classes in order to map the crud methods to a local host and the database also
- I hoped to achieve a fully functional website that would connect to a database and implement full crud functionality

eclipse-workspace - HobbyWebApplication/src/main/java/com/qa/springbootsw/service/ShopService.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer ×

- > greet
- > helloWorldDemo
- ▼ HobbyWebApplication [boot] [devtools]
  - ▼ src/main/java
    - ▼ com.qa.springbootsw
      - ▼ domain
        - > SheetMusic.java
        - > Shop.java
      - ▼ repo
        - > SheetMusicRepo.java
        - > ShopRepo.java
      - ▼ service
        - > SheetMusicService.java
        - > ShopService.java
      - > HobbyWebApplication.java
    - ▼ src/main/resources
      - static
      - templates
      - application.properties
    - > src/test/java

Boot Dashboard ×

Type tags, projects, or working set names to match (incl. \* and ?)

- > local

2 elements hidden by filter

Shop.java SheetMusic.java ShopService.java × SheetMusicService.java

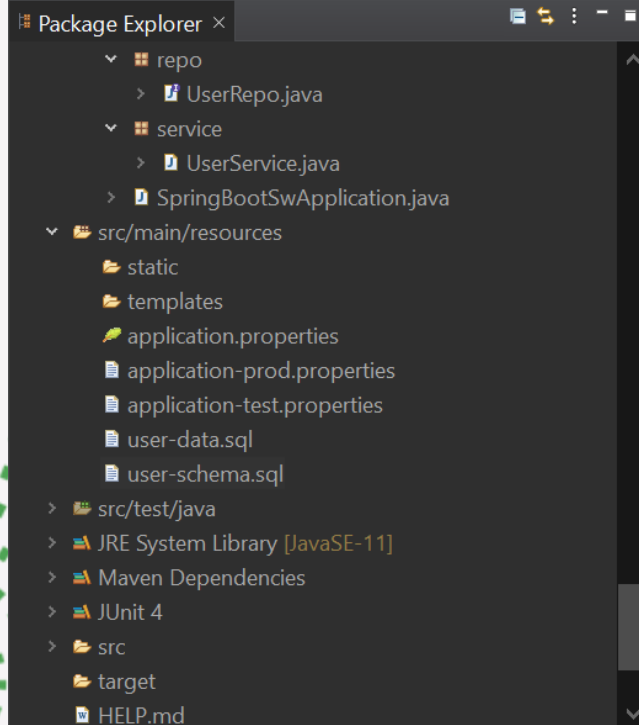
```
5 import org.springframework.stereotype.Service;
6
7 import com.qa.springbootsw.domain.Shop;
8 import com.qa.springbootsw.repo.ShopRepo;
9
10 @Service
11 public class ShopService {
12
13     private ShopRepo repo;
14
15     public ShopService(ShopRepo repo) {
16         this.repo = repo;
17     }
18
19     public Shop createShop(Shop shop) {
20
21         return this.repo.saveAndFlush(shop);
22     }
23
24     public List<Shop> getAll() {
25         return this.repo.findAll();
26     }
27
28     public Shop getOne(Long id) {
29         return this.repo.findById(id).get();
30     }
31
32
33
34     public Shop update(Long id, Shop shop) {
35         Shop existing = this.repo.findById(id).get();
36         existing.setName(shop.getName());
```

Problems Javadoc Declaration Console × Coverage

<terminated> SeleniumTest1 [JUnit] C:\Program Files\Java\jdk-11.0.11\bin\javaw.exe (16 Nov 2021, 10:32:36 – 10:32:45)  
SLF4J: See <http://www.slf4j.org/codes.html#StaticLoggerBinder> for further details.  
Starting ChromeDriver 96.0.4664.35 (8df3b9ahf8da8faa8aach78f4848ef66a93h4944h-nfs/branch-heads/4664@(#680)) on port 56451

Writable Smart Insert 36 : 25 : 690

Windows taskbar: Type here to search, 11°C, 14:37, 16/11/2021



Boot Dashboard ×

Type tags, projects, or working set names to match (incl. \* and ?)

&gt; local

2 elements hidden by filter

Shop.java SheetMusic.java ShopService.java SheetMusicService.java ShopController.java × SheetMusicController.java

```
14 import org.springframework.web.bind.annotation.RestController;
15
16 import com.qa.springbootsw.domain.Shop;
17
18 import com.qa.springbootsw.service.ShopService;
19
20 @RestController
21 @RequestMapping("/shop")
22 public class ShopController {
23
24     private ShopService service;
25
26     public ShopController(ShopService service) {
27         this.service = service;
28     }
29
30     // Create
31     @PostMapping("/create")
32     public ResponseEntity<Shop> create(@RequestBody Shop shop) {
33         return new ResponseEntity<Shop>(this.service.createShop(shop), HttpStatus.CREATED);
34     }
35
36     // Read
37     @GetMapping("/getAll")
38     public ResponseEntity<List<Shop>> getAll() {
39         // return the whole list
40         return new ResponseEntity<List<Shop>>(this.service.getAll(), HttpStatus.ACCEPTED);
41     }
42
43 }
```

Problems Javadoc Declaration Console × Coverage

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Writable

Overwrite

17 : 1 : 701



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11°C




ENG

15:09  
16/11/2021

16

The background of the slide is a dark green color with a complex, abstract pattern. It features overlapping circles and squares, some of which are filled with concentric circles or radial lines, creating a textured, organic feel. The pattern is more dense on the left side and fades slightly towards the right.

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- Spring Boot - I used this to build my project and implemented its in-built functions for things like testing.
- Other technologies included, mySQL Workbench, Git, Bootstrap, JavaScript for the Front End and Java for the Back End

# How did you approach version control

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- I used git for version control and Implemented the feature branch model in order to minimise merge conflicts

SoI@DESKTOP-EACDADS MINGW64 ~/eclipse-workspace/HobbyWebApplication (main)

\$ git status

On branch main

Your branch is up to date with 'origin/main'.

Untracked files:

(use "git add <file>..." to include in what will be committed)

.gitignore

.mvn/

mvnw

mvnw.cmd

pom.xml

src/

nothing added to commit but untracked files present (use "git add" to track)

SoI@DESKTOP-EACDADS MINGW64 ~/eclipse-workspace/HobbyWebApplication (main)

\$ git add .

warning: LF will be replaced by CRLF in .gitignore.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in .mvn/wrapper/MavenWrapperDownloader.java

.

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warning: LF will be replaced by CRLF in .mvn/wrapper/maven-wrapper.properties.

The file will have its original line endings in your working directory

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warning: LF will be replaced by CRLF in pom.xml.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in src/main/java/com/qa/springbootsw/HobbyWebApplication.java.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in src/main/resources/application.properties.

The file will have its original line endings in your working directory

warning: LF will be replaced by CRLF in src/test/java/com/qa/springbootsw/HobbyWebApplicationTests.java.

The file will have its original line endings in your working directory

SoI@DESKTOP-EACDADS MINGW64 ~/eclipse-workspace/HobbyWebApplication (main)

\$ git checkout -b dev

Switched to a new branch 'dev'

SoI@DESKTOP-EACDADS MINGW64 ~/eclipse-workspace/HobbyWebApplication (dev)

\$ |

The header features a dark green background with a series of semi-circular segments. Each segment contains a different pattern: concentric circles, a grid of dots, a solid color, and radial lines.

# Testing

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- I used JUnit for unit testing
- Selenium for testing the functionality of the webpages
- Mockito for my integration tests
- I managed to gain an overall coverage of 72.1% with my tests

eclipse-workspace - HobbyWebApplication/src/test/java/com/qa/springbootsw/pom/AboutUsPageTest.java - Eclipse IDE

FileEditSourceRefactorNavigateSearchProjectRunWindowHelp

Package ExplorerJUnit ×

Finished after 58.179 seconds

Runs: 41/41 (6 skip ✖ Errors: ✖ Failures: )

SheetMusicPageTest [Runner: JUnit]

HobbyWebApplicationTests [Runner: JUnit]

SheetMusicControllerIntegrationTest [Runner: JUnit]

ShopControllerIntegrationTest [Runner: JUnit]

SheetMusicServiceUnitTest [Runner: JUnit]

ShopServiceUnitTest [Runner: JUnit]

Failure Trace

Boot Dashboard ×

Type tags, projects, or working set name

local

3 elements hidden by filter

WebElementsTest.javaHomePageTest.javaAboutUsPageTest.java ×ShopPageTest.javaReadShopPageTest.javaReadSheetMusicPageTest.javaSheetMusicControllerIntegrationTest.java

```
33
34     WebElement button = driver.findElement(By.id("shopsBtn"));
35     System.out.println(button);
36
37     // Act
38     button.click();
39
40     // Assert
41     Assertions.assertEquals("http://127.0.0.1:5501/HTML/shop.html", driver.getCurrentUrl());
42 }
43
44 @Test
45 public void testSheetMusicButton() {
46
47     // Arrange
48     driver.get("http://127.0.0.1:5501/HTML/AboutUs.html");
49
50
51     WebElement button = driver.findElement(By.id("sheetMusicBtn"));
52     System.out.println(button);
53
54     // Act
55     button.click();
56
57     // Assert
58     Assertions.assertEquals("http://127.0.0.1:5501/HTML/SheetMusic.html", driver.getCurrentUrl());
59 }
```

ProblemsJavadocDeclarationConsoleCoverage ×

HobbyWebApplication (20 Nov 2021 19:12:11)

Element	Coverage	ed Instructions	ed Instructions	tal Instructions
▼ HobbyWebApplication	75.1 %	1,914	635	2,549
> src/test/java	76.4 %	1,366	423	1,789
> src/main/java	72.1 %	548	212	760

22

Windows Taskbar

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19:13

20/11/2021

# **Demonstration**

# Sprint Review

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I had a few problems with some of the selenium tests as they would fail when I included animated features of the website in the test



# **Sprint Retrospective**



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- I feel as though I did well with the back end and didn't encounter many issues, I was able to connect the database to the java code quite well, and I laid things out in a format that was easy for me to understand.

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- I feel as though I did well with the back end and didn't encounter many issues, I was able to connect the database to the java code quite well, and I laid things out in a format that was easy for me to understand.
- I managed my time pretty well and was able to get most issues sorted.



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- The 'read' pages could be improved as when the data is displayed on the webpage it doesn't look very nice.
- I feel like I should have focused more on the MVP and then improved on the website instead of focusing so much on improving the way the website looks before I had a decent amount of work done.

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- I plan on improving this project after it has been marked
- A big thank you to Reece! You're a great trainer and have really helped me through this :)



**Any Questions???**