

HW 5 - REST API – Java Spring Boot

Due: April 23, 2023 (Sunday) 11:59pm

Part 1 – REST API - Hello World: (Return 'Hello World!' and 'Welcome to CS 3342') (10%)

Description:

The purpose of this part is to get familiar with Java, IntelliJ, and REST API.

1. Install Java SDK 11 and IntelliJ in your computer. (Google the web/YouTube for these.)
2. Use Spring Initializer to create a Java project. (<https://start.spring.io/>)

Select Maven

The screenshot shows the Spring Initializer web form with the following configuration:

- Project:** ☐ Gradle - Groovy, ☐ Gradle - Kotlin, ☒ Maven
- Language:** ☒ Java, ☐ Kotlin, ☐ Groovy
- Spring Boot:** ☐ 3.1.0 (SNAPSHOT), ☐ 3.1.0 (M1), ☐ 3.0.5 (SNAPSHOT), ☒ 3.0.4, ☐ 2.7.10 (SNAPSHOT), ☐ 2.7.9
- Project Metadata:**
 - Group: com.example
 - Artifact: demo
 - Name: demo
 - Description: Demo project for Spring Boot
 - Package name: com.example.demo
- Dependencies:**
 - Spring Web** WEB
Build web, including RESTful, applications using Spring MVC. Uses Apache Tomcat as the default embedded container.

At the bottom, there are three buttons: , , and

(<https://www.youtube.com/watch?v=2gvd-UiAVfk>)

3. Create a Java class called WelcomeController.
4. Add code to the above project to print 'Hello World!' and 'Welcome to CS 7319!' on the root ("/") and "/welcome" page respectively. (A little bit different from the above YouTube.)

```
5. @RestController
public class WelcomeController {
    @GetMapping("/")
    public String HelloWorld(){
        return "Hello World";
    }

    @GetMapping("/weloom")
    public String Welcome(){
        return "Welcome to CS7319";
    }
}
```

6. Take screenshots of the above pages and put them in a Word Doc.
7. Zip the source codes.
8. Submit the files to Canvas.

Part 2 – REST API - Cat Cards: (Return Cat facts and pics.) (90%)

Description:

The purpose of this part is to get familiar with the REST API – get/post/put/delete and database operations (Postgres).


1. Install Postgres (PgAdmin) in your computer. Use port 5432 and postgres1 as password for postgres – i.e. username/password – postgres/postgres1 - Postgres server 12 will be fine. (<https://www.youtube.com/watch?v=0n41UTkOBb0>)
2. Open the Java base code for part2 in IntelliJ – (unzip Homework2.zip).
3. Open PgAdmin and create a database called 'catcards'.
4. Open the query tool under 'catcards' and run the catcards.sql to create the database tables for this project.
5. Read the Readme.md file and fix the missing codes.
6. Take a screenshot of the catcards and put them in a Word Doc after you fix the codes.
7. Zip the source codes.
8. Submit the files to Canvas.


The Base code will show this on the web page:

Welcome to Cat Cards



Caption me!

 Save To Collection

Get Next Card 

Your Collection

After you fix the code, it should display something like this:

Welcome to Cat Cards

In 1879, Belgium unsuccessfully tried to use cats to deliver mail.



Caption me!



Save To Collection

Get Next Card ➞

Your Collection