**Master SpringBoot**

**12-SpringBoot Swagger Implementation:**

**Step-00: Introduction to Swagger**

**Step-01: New GIT branch (using IDE)**

* **Git Branch name: 12-SpringBoot-Swagger-APIDocumentation**
* **Create new local branch**

**Step-02: Add Springfox Dependencies to pom.xml and Restart Embedded Tomcat**

**<dependency>**

**<groupId>io.springfox</groupId>**

**<artifactId>springfox-swagger2</artifactId>**

**<version>2.9.2</version>**

**</dependency>**

**<dependency>**

**<groupId>io.springfox</groupId>**

**<artifactId>springfox-swagger-ui</artifactId>**

**<version>2.9.2</version>**

**</dependency>**

**Step-03: Create SwaggerConfig file**

* **Annotate it with @Configuration**
* **Annotate it with @EnableSwagger2**
* **Create a Docket bean and annotate with @Bean**
* **Swagger Metadata URL**
  + [**http://localhost:8080/v2/api-docs**](http://localhost:8080/v2/api-docs)
* **Swagger UI URL**
  + [**http://localhost:8080/swagger-ui.html**](http://localhost:8080/swagger-ui.html)

**Step-04: Adding API Info to modify header part of our documentation**

* **Create a new class “ApiInfo”**
* **Update the Docket bean with this ApiInfo**

**Step-05: Restrict scope of swagger document generation using API Basepackages & Paths**

* **Update base package in RequestHandlerSelectors.basePackage**
* **Update PathSelectors.ant(“users/\*\*”) to limit to specific paths**
* **Verify in readable format in SWAGGER online editor** [**http://editor.swagger.io/**](http://editor.swagger.io/)
* **Fix Optional<User> responses**
* **Test using REST client Swagger:**

**Step-06: Auto populate documentation for JSR-303 Validations**

* **JSR-303 Spec:** [**http://beanvalidation.org/2.0/spec/**](http://beanvalidation.org/2.0/spec/)
* **Add Dependency in pom.xml and restart Embedded Tomcat**

**<dependency>**

**<groupId>io.springfox</groupId>**

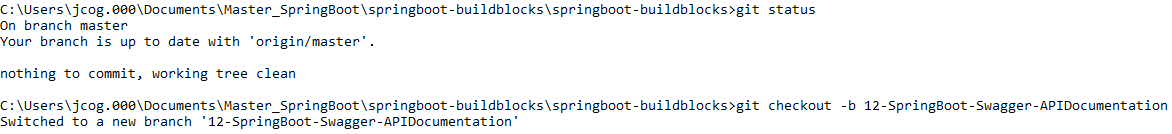
**<artifactId>springfox-beanvalidators</artifactId>**

**<version>2.9.2</version>**

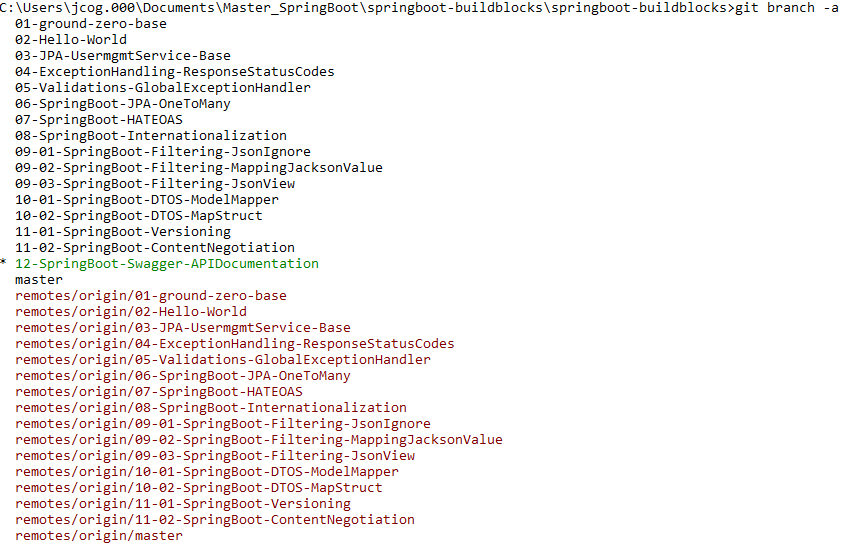
**</dependency>**

**Create the new branch:**

**git status git checkout –b 12-SpringBoot-Swagger-APIDocumentation**

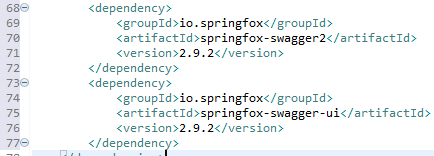


**git branch –a**



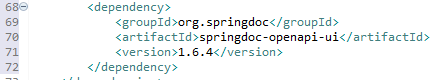
**Add the dependencies:**

**This dependency does not work with springboot 2.6.2**

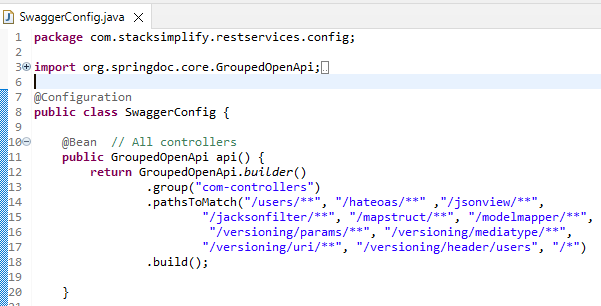


**Used Swagger 3.0 dependencies:**

**Documentation:** [**https://springdoc.org/#features**](https://springdoc.org/#features)

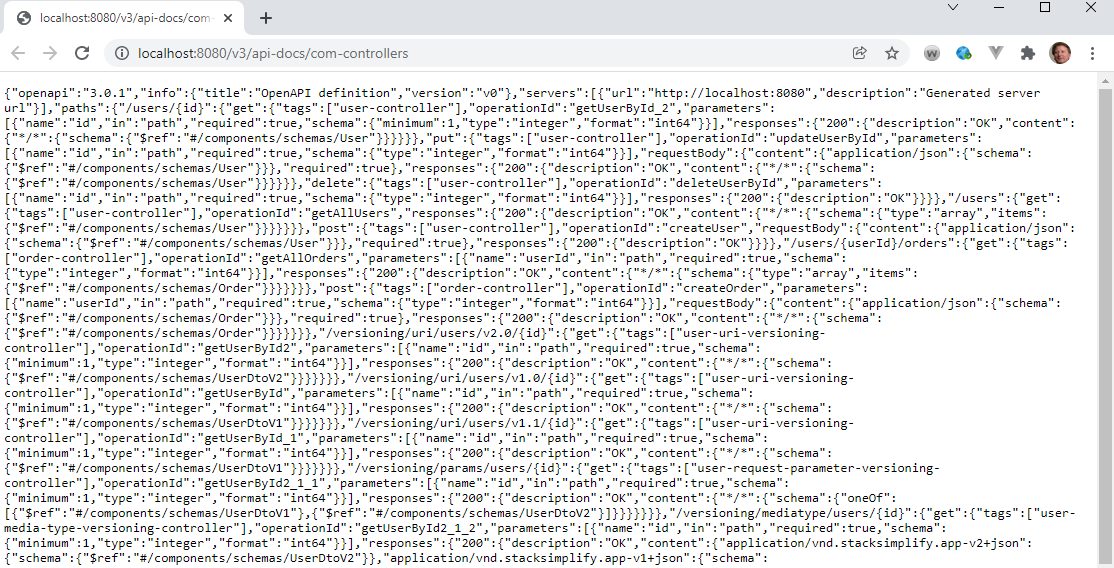


**Create the new SwaggerConfig configuration class:**



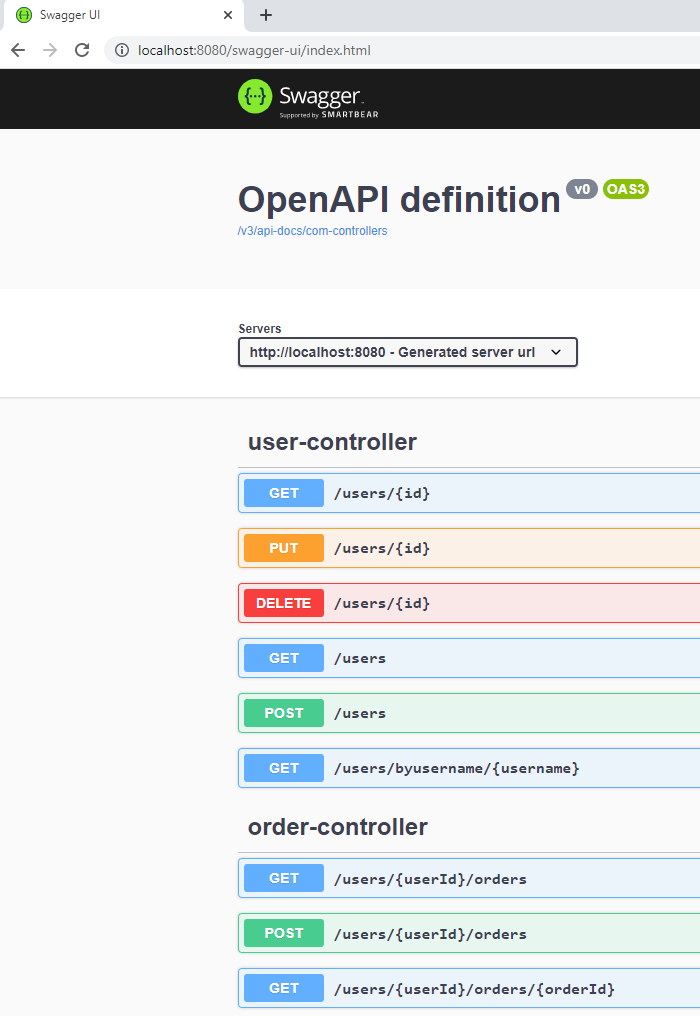
**Swagger Metadata output:**

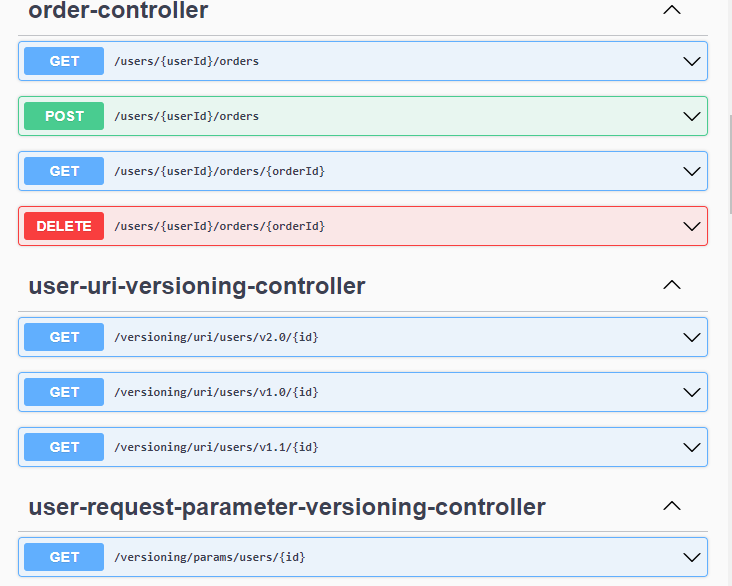
[**http://localhost:8080/v3/api-docs/com-controllers**](http://localhost:8080/v3/api-docs/com-controllers)

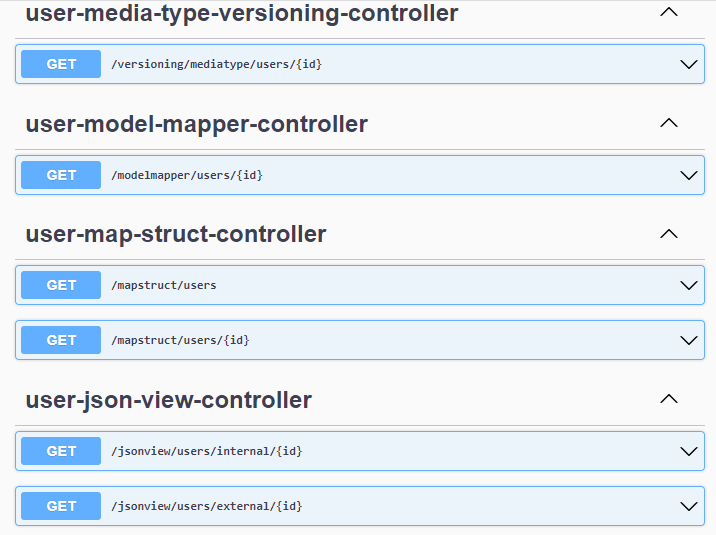


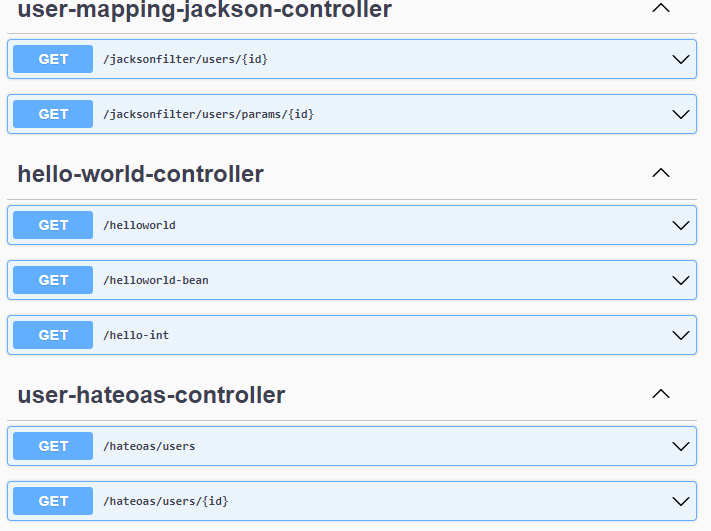
**Swagger UI URL output:**

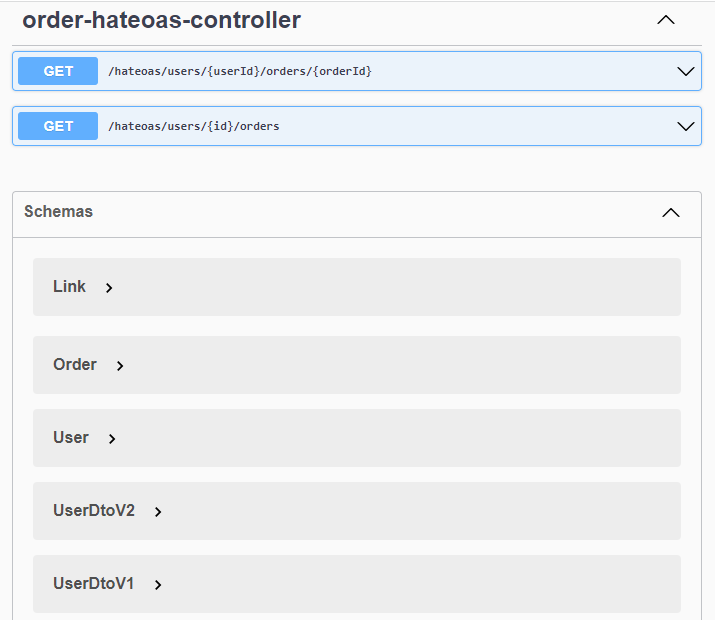
[**http://localhost:8080/swagger-ui/index.html**](http://localhost:8080/swagger-ui/index.html)

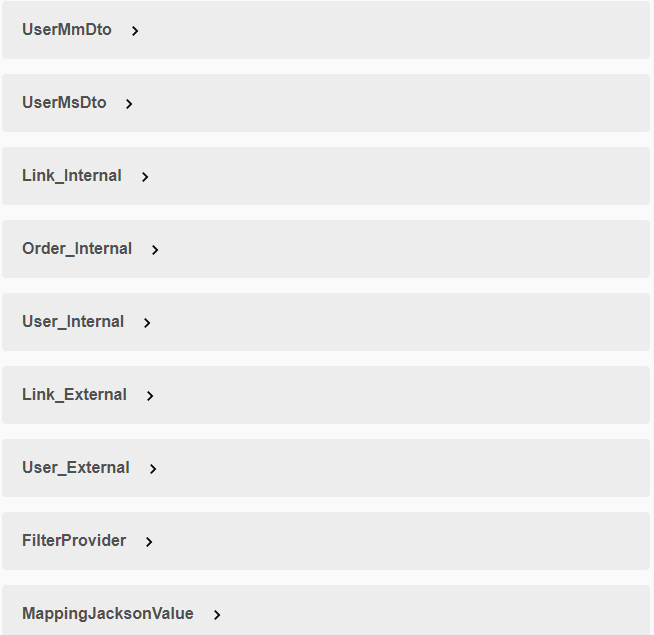














**Open GET /helloworld**

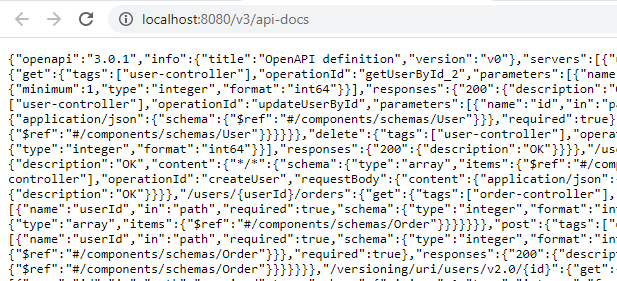
**Testing with curl:**



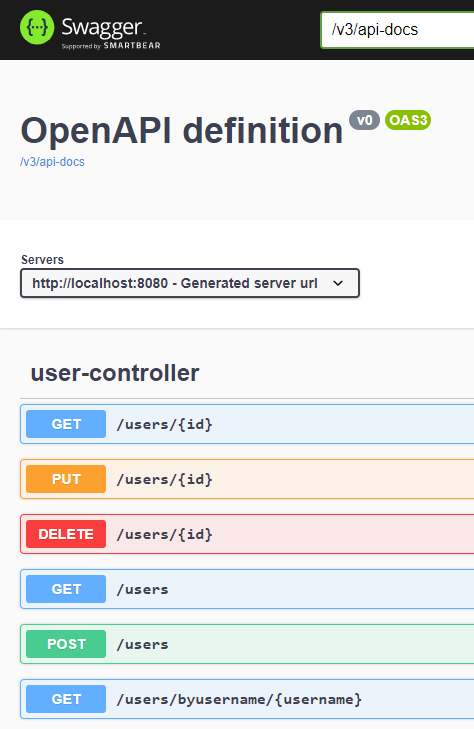
**Or use application.properties for swagger output if only one Docket:**

springdoc.packagesToScan=com.stacksimplify.restservices, com.stacksimplify.restservices.Hello

springdoc.pathsToMatch=/users/\*\*, /hateoas/\*\*, /jsonview/\*\*, /jacksonfilter/\*\*, /mapstruct/\*\*, /modelmapper/\*\*, /versioning/params/\*\*, /versioning/mediatype/\*\*, /versioning/uri/\*\*, /versioning/header/users, /\*



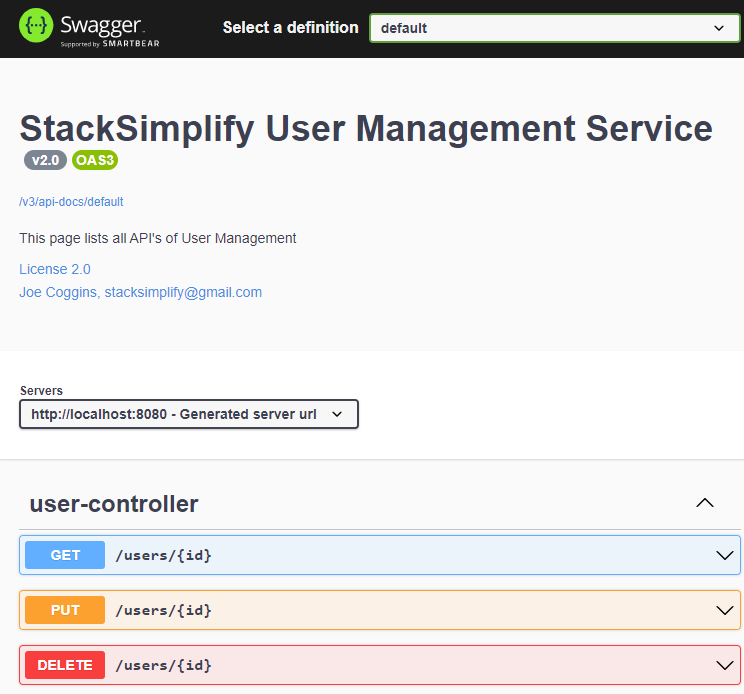
[**http://localhost:8080/swagger-ui/index.html**](http://localhost:8080/swagger-ui/index.html)



**OpenApi info added:**



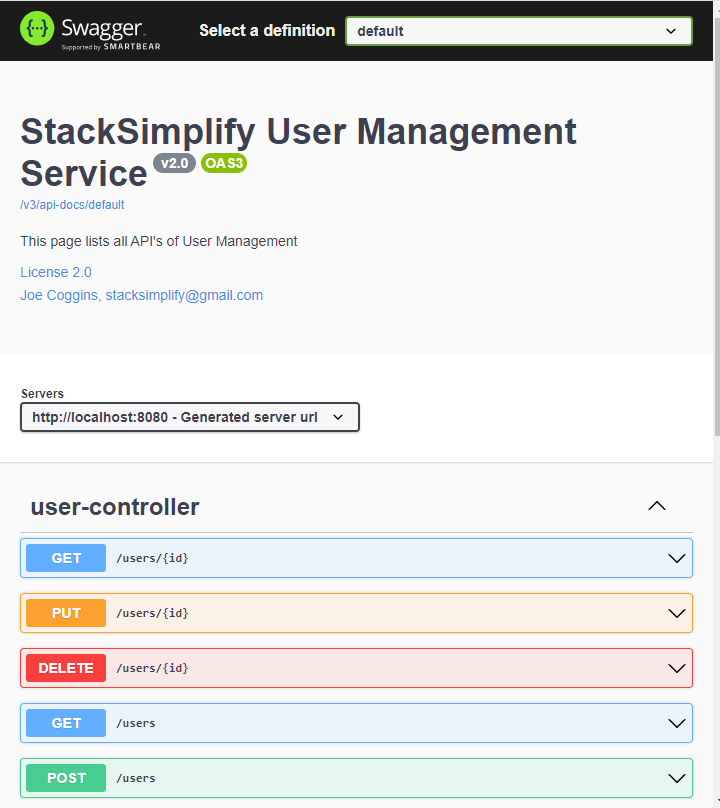
**Display:**

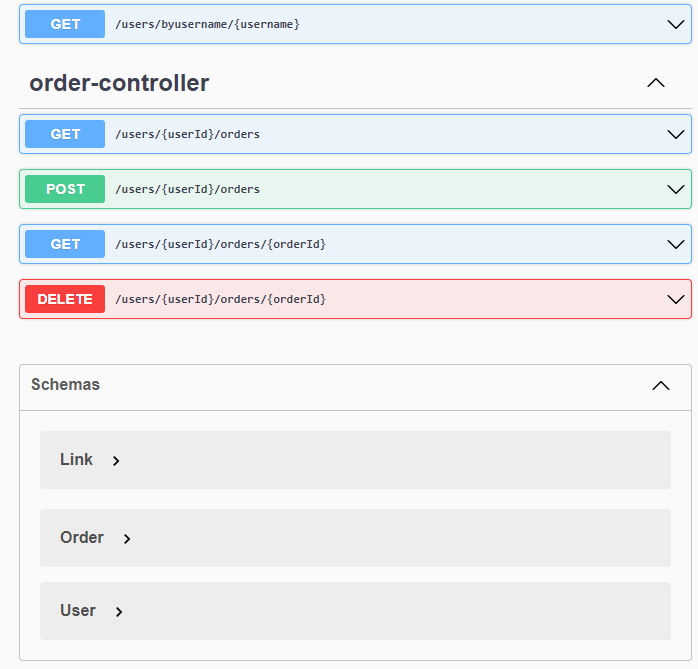


**Reduce the packages to the base package and path to “/users”**



**Output:**

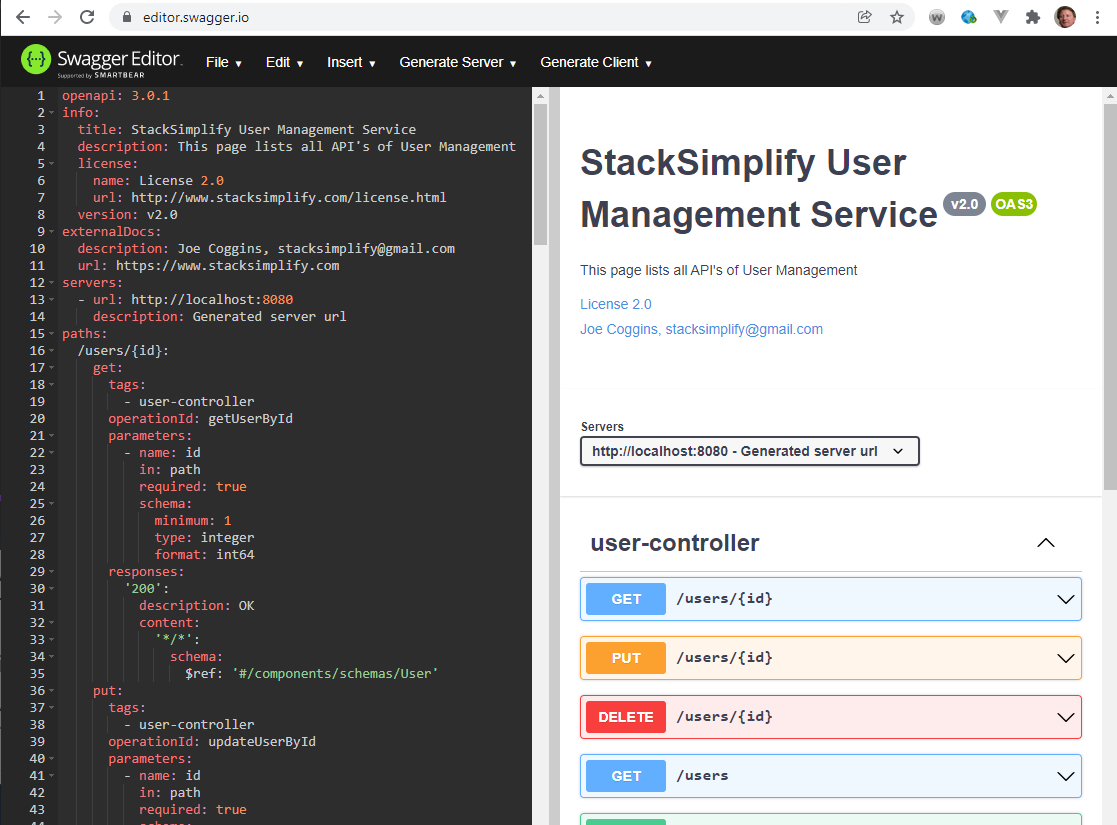




**Copy the OpenDoc Api:**

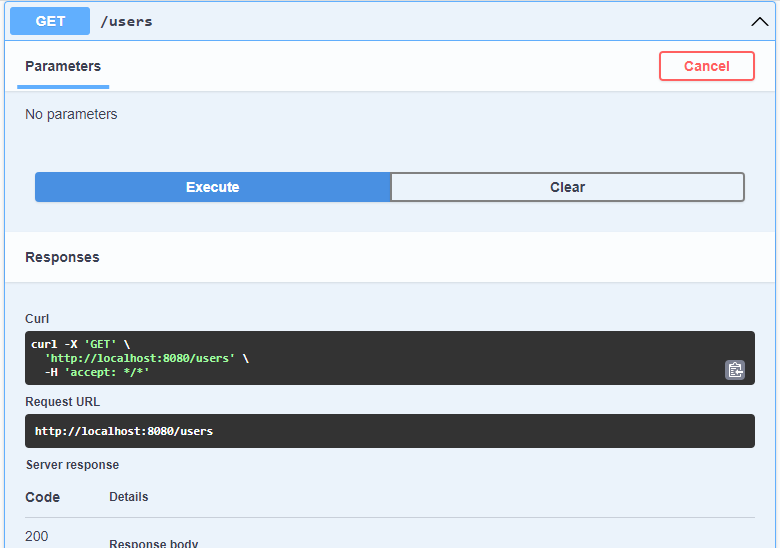
**Browse to** [**https://editor.swagger.com**](https://editor.swagger.com)

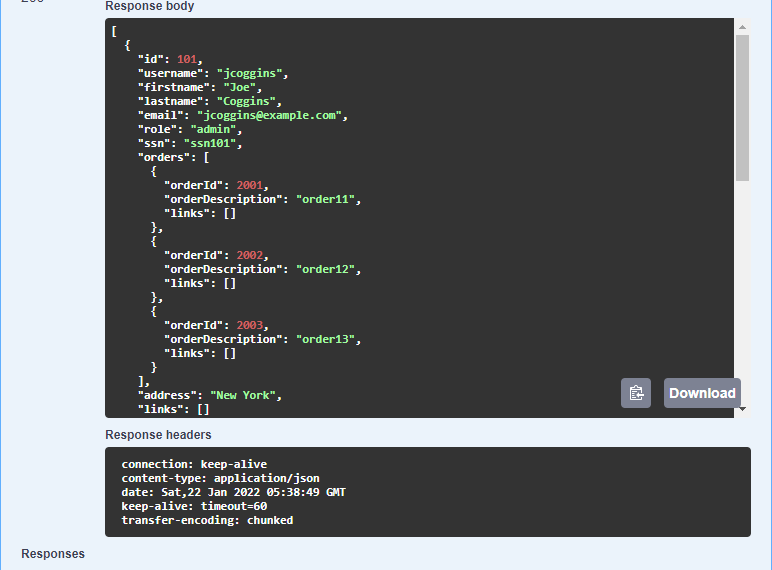
**Paste the code in the Editor Box:**



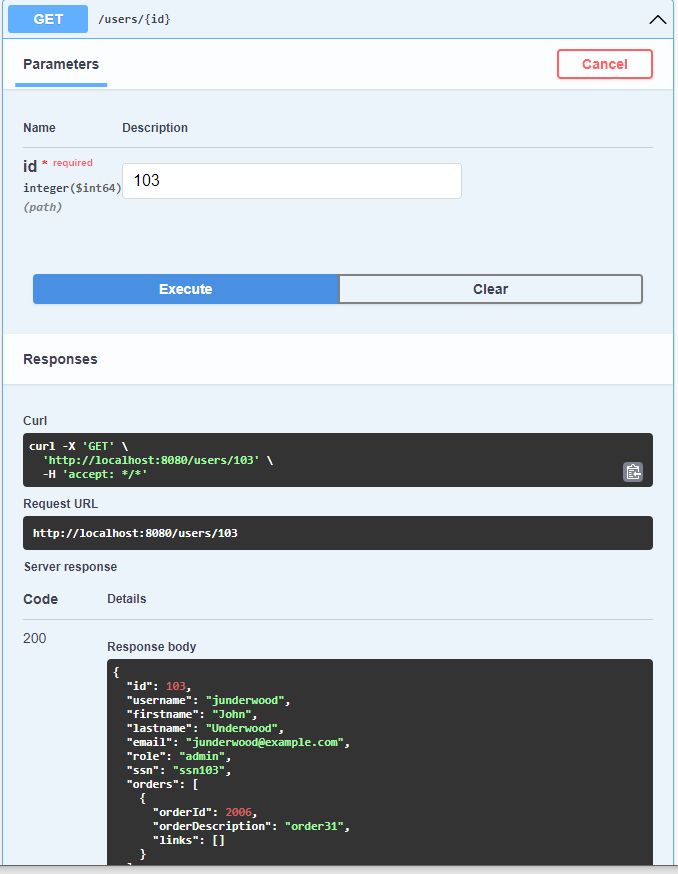
**There are no errors to fix in the code:**

**Test GET /users using REST client Swagger:**

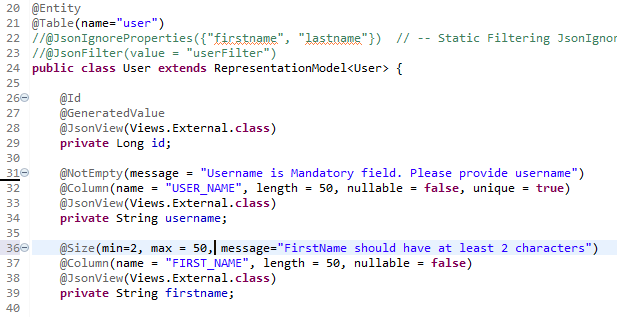




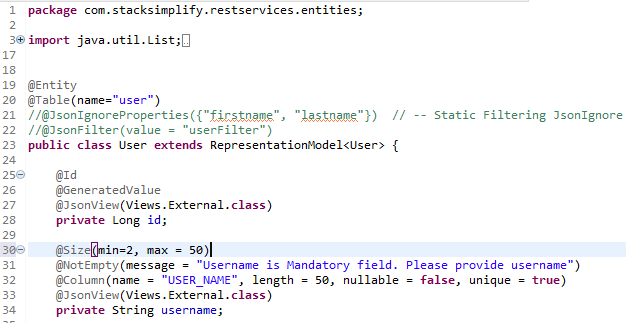
**Test GET /users/{id} using REST client Swagger:**



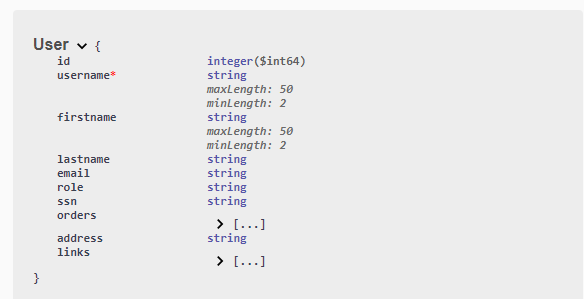
**Add JSR Validation max = 50 to User Entity**



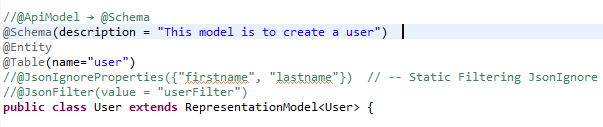
**Add the same validation to Username**



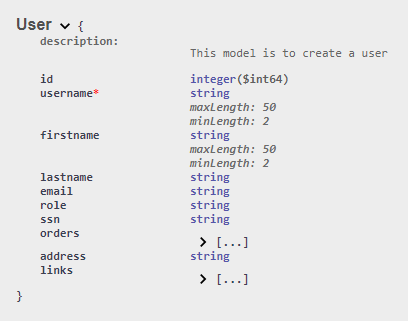
**Validators show up in the model User**



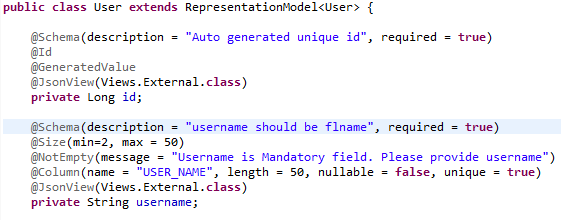
**Add a description at the class level:**



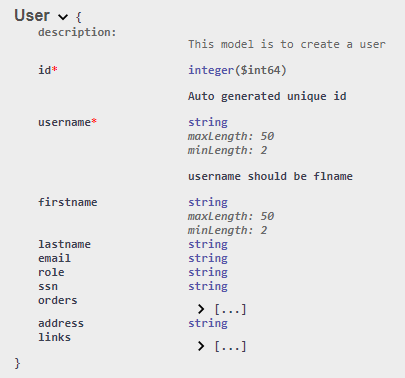
**Display:**



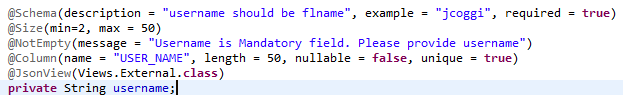
**Add ApiModelProperty or Schema to properties username and id**



**Display:**



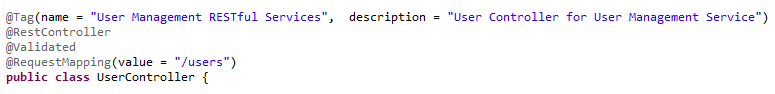
**Provided and example:**



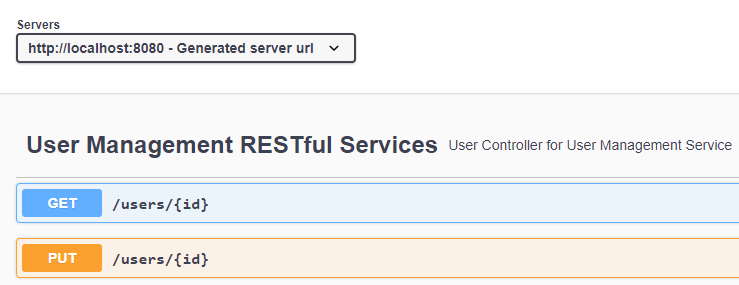
**Display:**



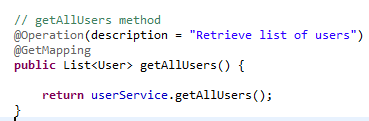
**Label the controller:**



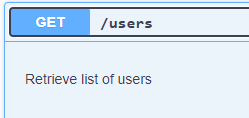
**Display:**



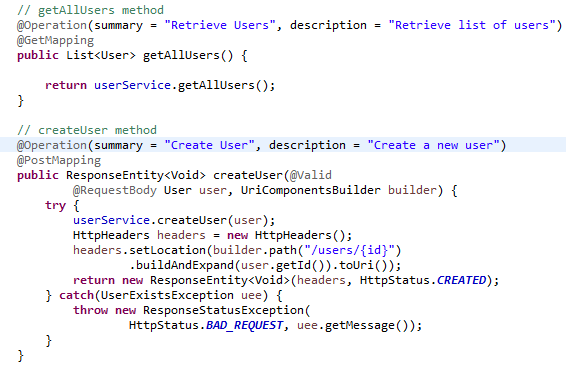
**Replace getAllUsers() method name with more descriptive name**



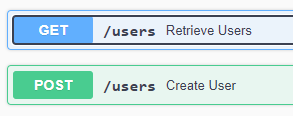
**Display:**

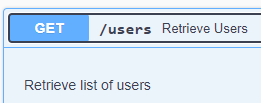


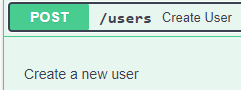
**Replace createUser() method name with more descriptive name**



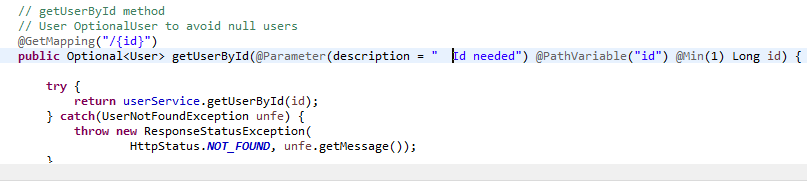
**Display:**



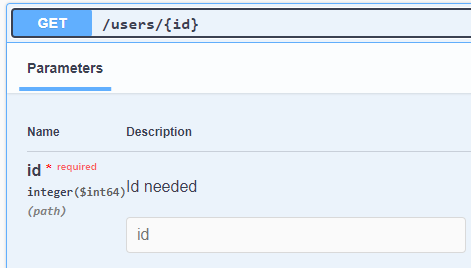




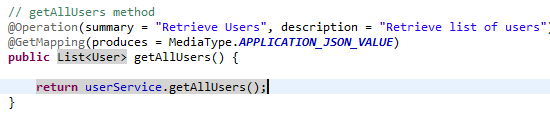
**Comment on the Parameter:**



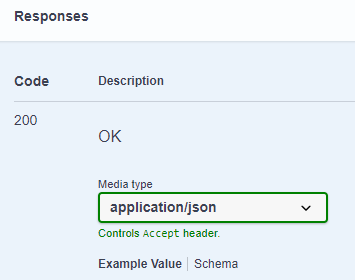
**Display:**



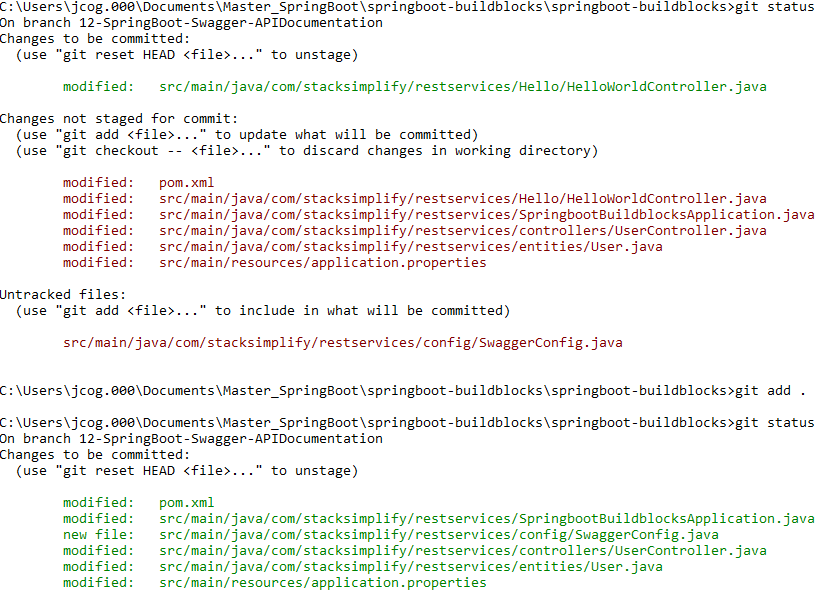
**Adding produces to GetMapping in getAllUsers()**



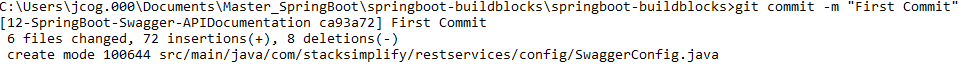
**Displays: application/json**



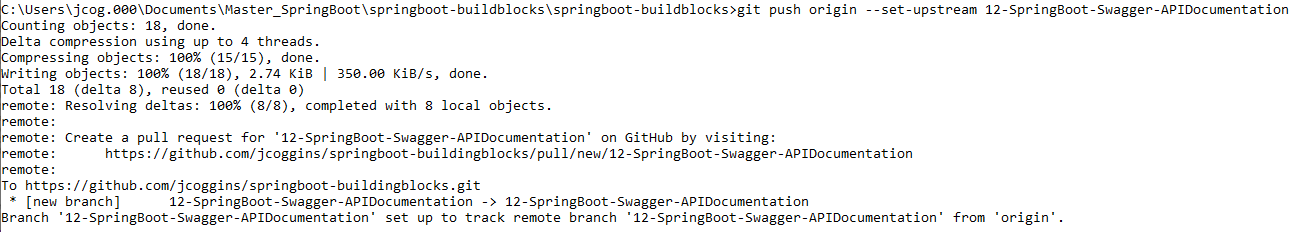
**git status git add . git status**



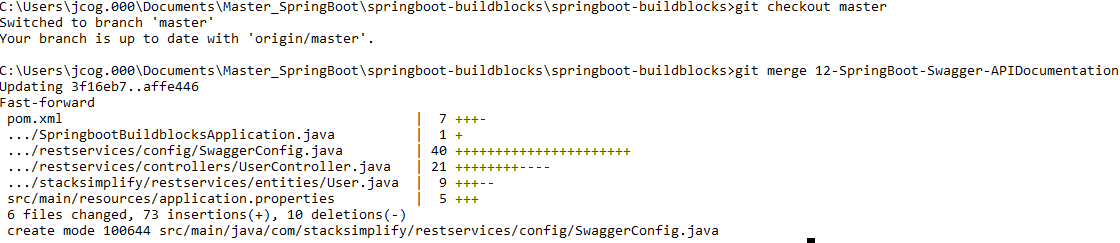
**git commit –m “First Commit”**



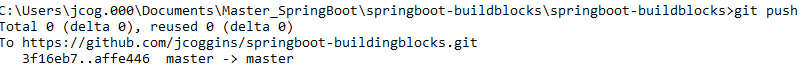
**git push origin --set-upstream 12-SpringBoot-Swagger-APIDocumentation**



**git checkout master git merge 12-SpringBoot-Swagger-APIDocumentation**



**git push**



**git branch –vva**

