

Environment and Tools used:

- 1) Windows 10
- 2) Eclipse IDE (STS Plugin)
- 3) Spring Boot
- 4) Java 8+ (jdk need to be installed in order to build and run the application)
- 5) Postman for Testing.

Coding Exercise Testing:

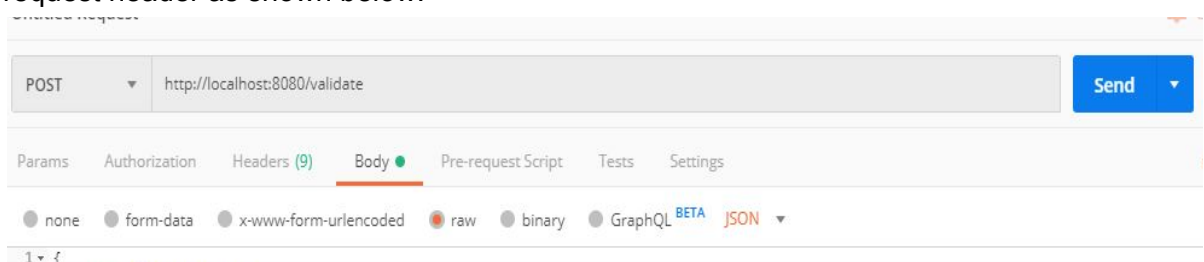
- 1) To run the application locally copy the .jar file attached (**Royal-Mail-RestFULL-api-0.0.1-SNAPSHOT.jar**) on to your computer.
- 2) Run the below command from command line to run the application locally from the path where you have copied the jar file,
- 3) **java -jar Royal-Mail-RestFULL-api-0.0.1-SNAPSHOT.jar**
- 4) You should be able to see that the server is started as below. Once the server is started successfully please follow step 5.

```

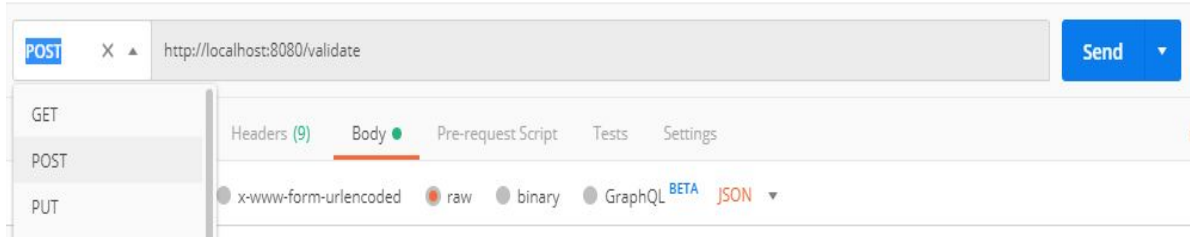
#####_|=====|_/___/
:: Spring Boot :: (v2.1.13.BUILD-SNAPSHOT)

2020-02-08 13:39:32.825 INFO 27304 --- [
SHOT.jar started by tintu in C:\Arvind)
main] c.r.RoyalMailRestFullApiApplication : Starting RoyalMailRestFullApiApplication v0.0.1-SNAPSHOT on PC with PID 27304 (C:
2020-02-08 13:39:32.846 INFO 27304 --- [
main] c.r.RoyalMailRestFullApiApplication : No active profile set, falling back to default profiles: default
2020-02-08 13:39:34.973 INFO 27304 --- [
main] trationDelegateBeanPostProcessorChecker : Bean 'org.springframework.hateoas.config.HateoasConfiguration' of type [org.spring
tion$EnhancerBySpringGILBS$82470867] is not eligible for getting processed by all BeanPostProcessors (for example: not eligible for auto-proxying)
2020-02-08 13:39:35.830 INFO 27304 --- [
main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port(s): 8080 (http)
2020-02-08 13:39:35.885 INFO 27304 --- [
main] o.apache.catalina.core.StandardService : Starting service [Tomcat]
2020-02-08 13:39:35.886 INFO 27304 --- [
main] org.apache.catalina.core.StandardEngine : Starting Servlet engine: [Apache Tomcat/9.0.30]
2020-02-08 13:39:36.056 INFO 27304 --- [
main] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext
2020-02-08 13:39:36.056 INFO 27304 --- [
main] o.s.web.context.ContextLoader : Root WebApplicationContext: initialization completed in 3101 ms
2020-02-08 13:39:37.551 INFO 27304 --- [
main] o.s.s.concurrent.ThreadPoolTaskExecutor : Initializing ExecutorService 'applicationTaskExecutor'
2020-02-08 13:39:38.396 INFO 27304 --- [
main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s): 8080 (http) with context path ''
2020-02-08 13:39:38.605 INFO 27304 --- [
main] c.r.RoyalMailRestFullApiApplication : Started RoyalMailRestFullApiApplication in 6.67 seconds (JVM running for 7.325)
```

- 5) I have used POSTMAN app to test the solution, alternatively you can use SOAP UI.
- 6) Open the POSTMAN app and copy the URL “http://localhost:8080/validate” in the request header as shown below.



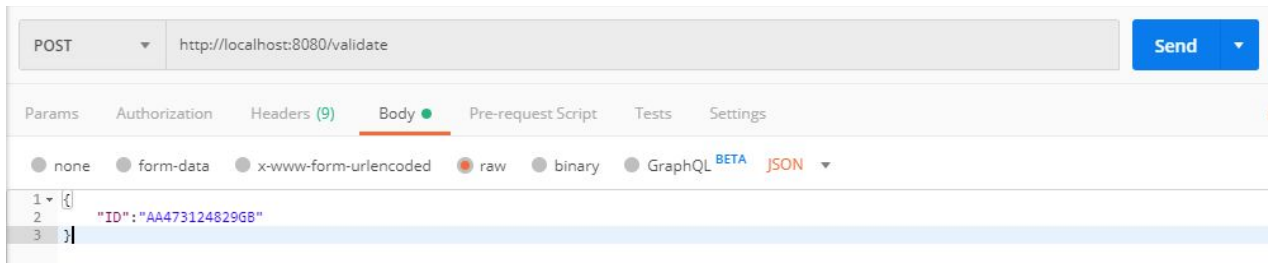
- 7) Make sure you select the Method type ad POST as shown below.



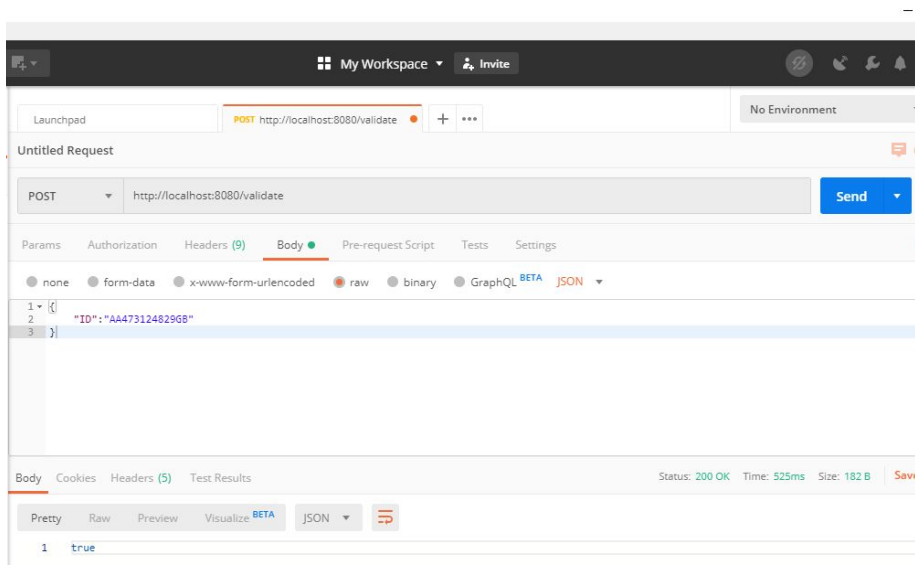
8) Use the request as shown below.

```
{  
  "ID": "AA473124829GB"  
}
```

9) Make sure the under the body you select the raw type and paste the above request in the window as shown below.



10) Once the request is ready click on the send button and you should be able to see the response in the window below. You can change the S10 barcode as per your request and based on the validation you can see the response as True or False.



Coding Exercise Solution:

- 1) Attached the code in a ZIP file "Royal-Mail-RestFULL-api.zip".
- 2) Unzip the file and import it any IDE (Eclipse recommended with STS Plugin).
- 3) If you want to build the application again to create the jar file which is already provided in the attachment, please run the below command from the project folder.

Command: mvnw clean package

```
[INFO] Results:
[INFO]
[INFO] Tests run: 4, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO]
[INFO] --- maven-jar-plugin:3.1.2:jar (default-jar) @ Royal-Mail-RestFULL-api ---
[INFO] Building jar: C:\Arvind\Java\Practice\Royal-Mail-RestFULL-api\target\Royal-Mail-RestFULL-api-0.0.1-SNAPSHOT.jar
[INFO]
[INFO] --- spring-boot-maven-plugin:2.1.13.BUILD-SNAPSHOT:repackage (repackage) @ Royal-Mail-RestFULL-api ---
[INFO] Replacing main artifact with repackaged archive
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 22.469 s
[INFO] Finished at: 2020-02-08T13:51:28Z
[INFO]
```

Once the build is successful you can find the jar file created under the target folder inside the project folder from where you ran the mvnw clean package command.