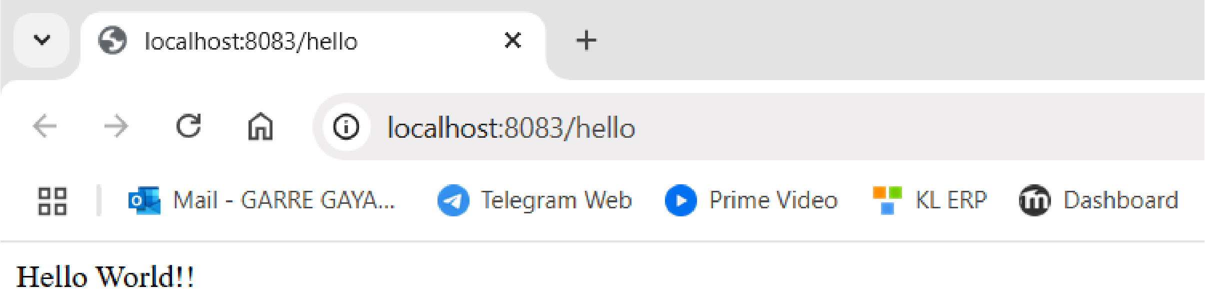
Hello World RESTful Web Service

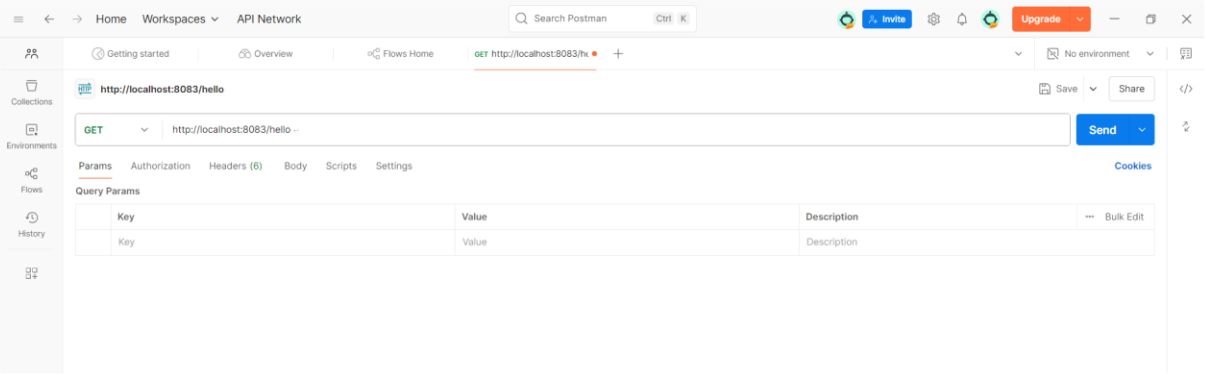
SpringLearnApplication.java:

```java
package com.cognizant.spring_learn;

import java.text.ParseException;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication

public class SpringLearnApplication {

    public static void main(String[] args) throws ParseException {

        SpringApplication.run(SpringLearnApplication.class, args);

    }

}
```

OUTPUTS:



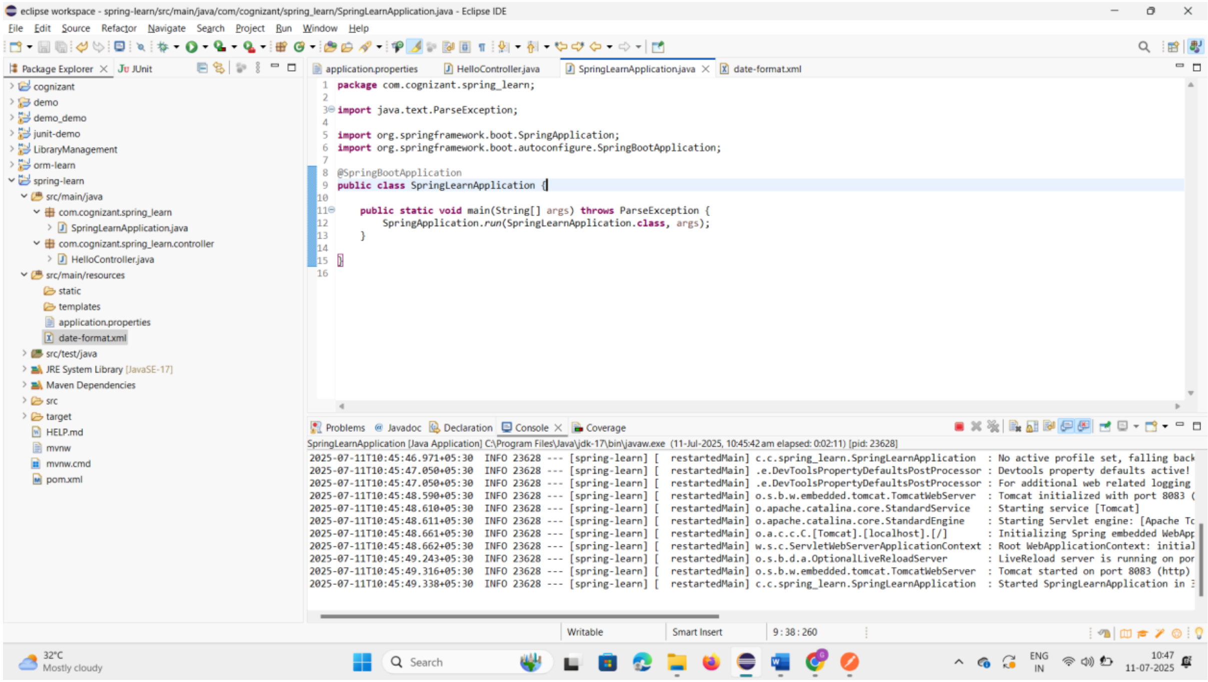
Hello World!!



GET http://localhost:8083/hello

Query Params

Key	Value	Description
Key	Value	Description



```java
package com.cognizant.spring_learn;

import java.text.ParseException;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication
public class SpringLearnApplication {

    public static void main(String[] args) throws ParseException {
        SpringApplication.run(SpringLearnApplication.class, args);
    }

}
```

```
SpringLearnApplication [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe  (11-Jul-2025, 10:45:42 am elapsed: 0:02:11) [pid: 23628]
2025-07-11T10:45:46.971+05:30  INFO 23628 --- [spring-learn] [  restartedMain] c.c.spring_learn.SpringLearnApplication  : No active profile set, falling back
2025-07-11T10:45:47.050+05:30  INFO 23628 --- [spring-learn] [  restartedMain] .e.DevToolsPropertyDefaultsPostProcessor : Devtools property defaults active!
2025-07-11T10:45:47.050+05:30  INFO 23628 --- [spring-learn] [  restartedMain] .e.DevToolsPropertyDefaultsPostProcessor : For additional web related logging
2025-07-11T10:45:48.590+05:30  INFO 23628 --- [spring-learn] [  restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer  : Tomcat initialized with port 8083 (
2025-07-11T10:45:48.610+05:30  INFO 23628 --- [spring-learn] [  restartedMain] o.apache.catalina.core.StandardService   : Starting service [Tomcat]
2025-07-11T10:45:48.611+05:30  INFO 23628 --- [spring-learn] [  restartedMain] o.apache.catalina.core.StandardEngine    : Starting Servlet engine: [Apache Tc
2025-07-11T10:45:48.661+05:30  INFO 23628 --- [spring-learn] [  restartedMain] o.a.c.c.C.[Tomcat].[localhost].[/]       : Initializing Spring embedded WebApp
2025-07-11T10:45:48.662+05:30  INFO 23628 --- [spring-learn] [  restartedMain] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initial
2025-07-11T10:45:49.243+05:30  INFO 23628 --- [spring-learn] [  restartedMain] o.s.b.d.a.OptionalLiveReloadServer       : LiveReload server is running on por
2025-07-11T10:45:49.316+05:30  INFO 23628 --- [spring-learn] [  restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer  : Tomcat started on port 8083 (http)
2025-07-11T10:45:49.338+05:30  INFO 23628 --- [spring-learn] [  restartedMain] c.c.spring_learn.SpringLearnApplication  : Started SpringLearnApplication in 
```

REST - Country Web Service

Country.java

```
package com.cognizant.spring_learn.model;
public class Country {
   private String code;
   private String name;
   public Country() {}
   public Country(String code, String name) {
      this.code = code;
      this.name = name;
   }
   public String getCode() {
      return code;
   }
   public void setCode(String code) {
      this.code = code;
   }
   public String getName() {
      return name;
   }
   public void setName(String name) {
      this.name = name;
   }
}
```

Country.xml:

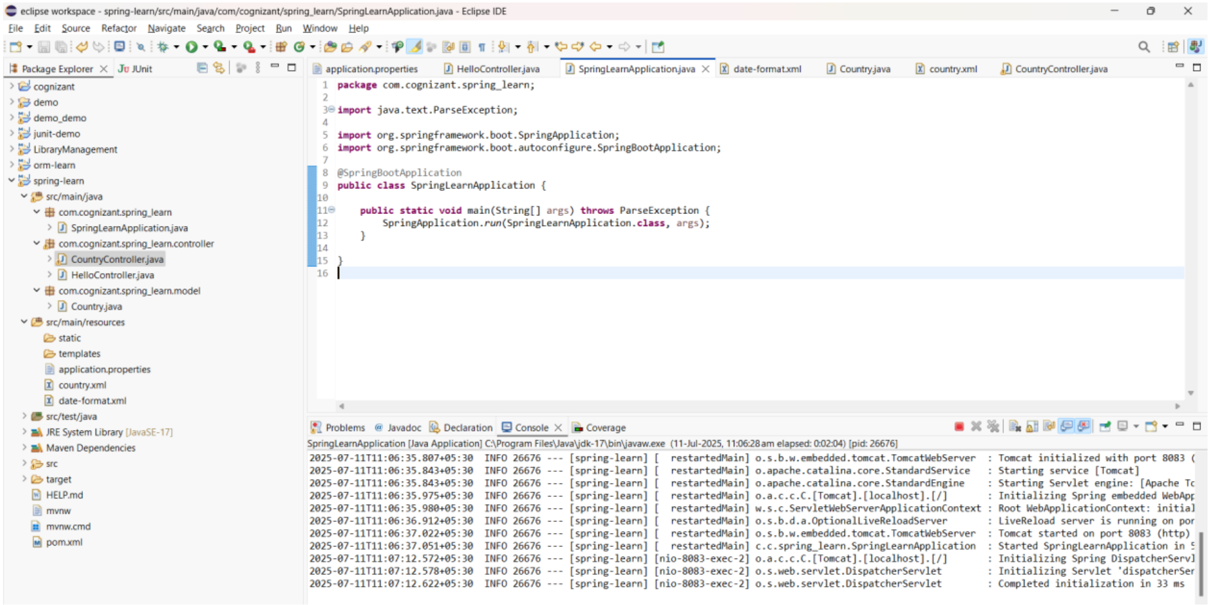
```
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xsi:schemaLocation="
```

```xml
      http://www.springframework.org/schema/beans
      http://www.springframework.org/schema/beans/spring-beans.xsd">
  <bean id="in" class="com.cognizant.spring_learn.model.Country">
    <property name="code" value="IN" />
    <property name="name" value="India" />
  </bean>
</beans>
```

CountryController:

```java
package com.cognizant.spring_learn.controller;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RestController;
import com.cognizant.spring_learn.model.Country;
@RestController
public class CountryController {
  @RequestMapping("/country")
  public Country getCountryIndia() {
    ApplicationContext context = new ClassPathXmlApplicationContext("country.xml");
    Country country = (Country) context.getBean("in");
    return country;
  }
}
```

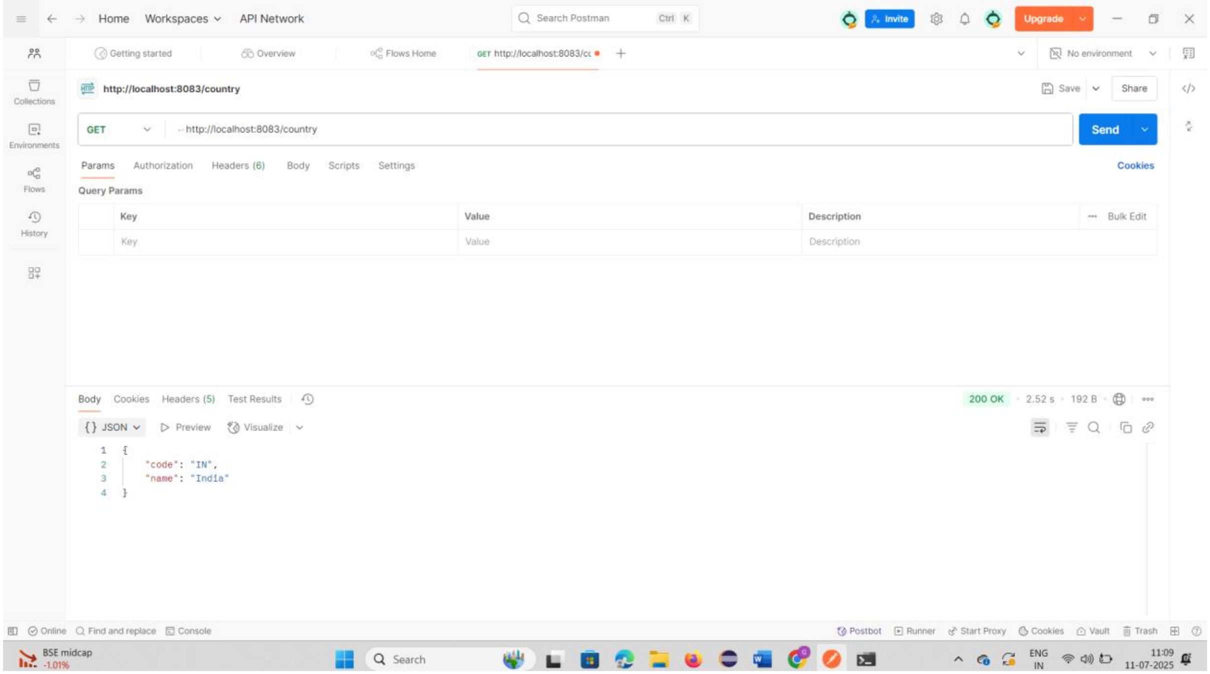
OUTPUTS:



```java
package com.cognizant.spring_learn;

import java.text.ParseException;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication
public class SpringLearnApplication {

    public static void main(String[] args) throws ParseException {
        SpringApplication.run(SpringLearnApplication.class, args);
    }

}
```

SpringLearnApplication [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (11-Jul-2025, 11:06:28 am elapsed: 0:02:04) [pid: 26676]

```
2025-07-11T11:06:35.807+05:30  INFO 26676 --- [spring-learn] [  restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer  : Tomcat initialized with port 8083 (
2025-07-11T11:06:35.843+05:30  INFO 26676 --- [spring-learn] [  restartedMain] o.apache.catalina.core.StandardService   : Starting service [Tomcat]
2025-07-11T11:06:35.843+05:30  INFO 26676 --- [spring-learn] [  restartedMain] o.apache.catalina.core.StandardEngine    : Starting Servlet engine: [Apache Tc
2025-07-11T11:06:35.975+05:30  INFO 26676 --- [spring-learn] [  restartedMain] o.a.c.c.C.[Tomcat].[localhost].[/]       : Initializing Spring embedded WebApp
2025-07-11T11:06:35.980+05:30  INFO 26676 --- [spring-learn] [  restartedMain] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initial
2025-07-11T11:06:36.912+05:30  INFO 26676 --- [spring-learn] [  restartedMain] o.s.b.d.a.OptionalLiveReloadServer       : LiveReload server is running on por
2025-07-11T11:06:37.022+05:30  INFO 26676 --- [spring-learn] [  restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer  : Tomcat started on port 8083 (http)
2025-07-11T11:06:37.051+05:30  INFO 26676 --- [spring-learn] [  restartedMain] c.c.spring_learn.SpringLearnApplication  : Started SpringLearnApplication in 5
2025-07-11T11:07:12.572+05:30  INFO 26676 --- [spring-learn] [nio-8083-exec-2] o.a.c.c.C.[Tomcat].[localhost].[/]       : Initializing Spring DispatcherServl
2025-07-11T11:07:12.578+05:30  INFO 26676 --- [spring-learn] [nio-8083-exec-2] o.s.web.servlet.DispatcherServlet        : Initializing Servlet 'dispatcherSer
2025-07-11T11:07:12.622+05:30  INFO 26676 --- [spring-learn] [nio-8083-exec-2] o.s.web.servlet.DispatcherServlet        : Completed initialization in 33 ms
```

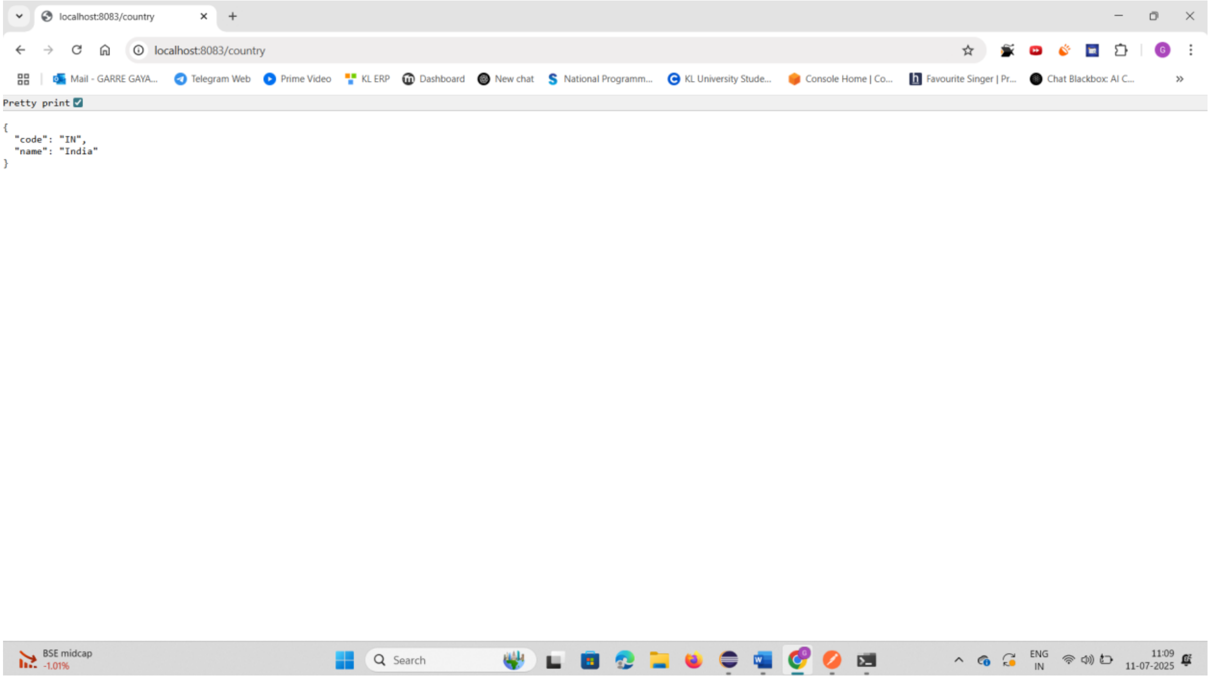


http://localhost:8083/country

GET http://localhost:8083/country

200 OK · 2.52 s · 192 B

```json
{
    "code": "IN",
    "name": "India"
}
```



Pretty print ☑

```
{
  "code": "IN",
  "name": "India"
}
```

REST - Get country based on country code

Country.xml:

```
<?xml version="1.0" encoding="UTF-8"?>
<countries>
   <country>
      <code>IN</code>
      <name>India</name>
   </country>
   <country>
      <code>US</code>
      <name>United States</name>
   </country>
   <country>
      <code>CN</code>
      <name>China</name>
   </country>
</countries>
```

Country.java:

```
package com.cognizant.spring_learn.model;
import jakarta.xml.bind.annotation.XmlElement;
import jakarta.xml.bind.annotation.XmlRootElement;
@XmlRootElement(name = "country")
public class Country {
   private String code;
   private String name;
   @XmlElement
   public String getCode() {
      return code;
   }
```

```
    public void setCode(String code) {
        this.code = code;
    }
    @XmlElement
    public String getName() {
        return name;
    }
    public void setName(String name) {
        this.name = name;
    }
}
```

CountryService.java:

```
package com.cognizant.spring_learn.service;
import com.cognizant.spring_learn.model.Country;
import com.cognizant.spring_learn.model.Countries;
import org.springframework.core.io.ClassPathResource;
import org.springframework.oxm.jaxb.Jaxb2Marshaller;
import org.springframework.stereotype.Service;
import javax.xml.transform.stream.StreamSource;
import java.util.List;
@Service
public class CountryService {
    private List<Country> countryList;
    public CountryService() {
        loadCountriesFromXml();
    }
    private void loadCountriesFromXml() {
        try {
            Jaxb2Marshaller marshaller = new Jaxb2Marshaller();
            marshaller.setClassesToBeBound(Countries.class, Country.class);
            Countries countries = (Countries) marshaller.unmarshal(
                    new StreamSource(new ClassPathResource("country.xml").getInputStream()));
            this.countryList = countries.getCountry();
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
    public Country getCountry(String code) {
        return countryList.stream()
                .filter(c -> c.getCode().equalsIgnoreCase(code))
                .findFirst()
                .orElse(null);
    }
}
```

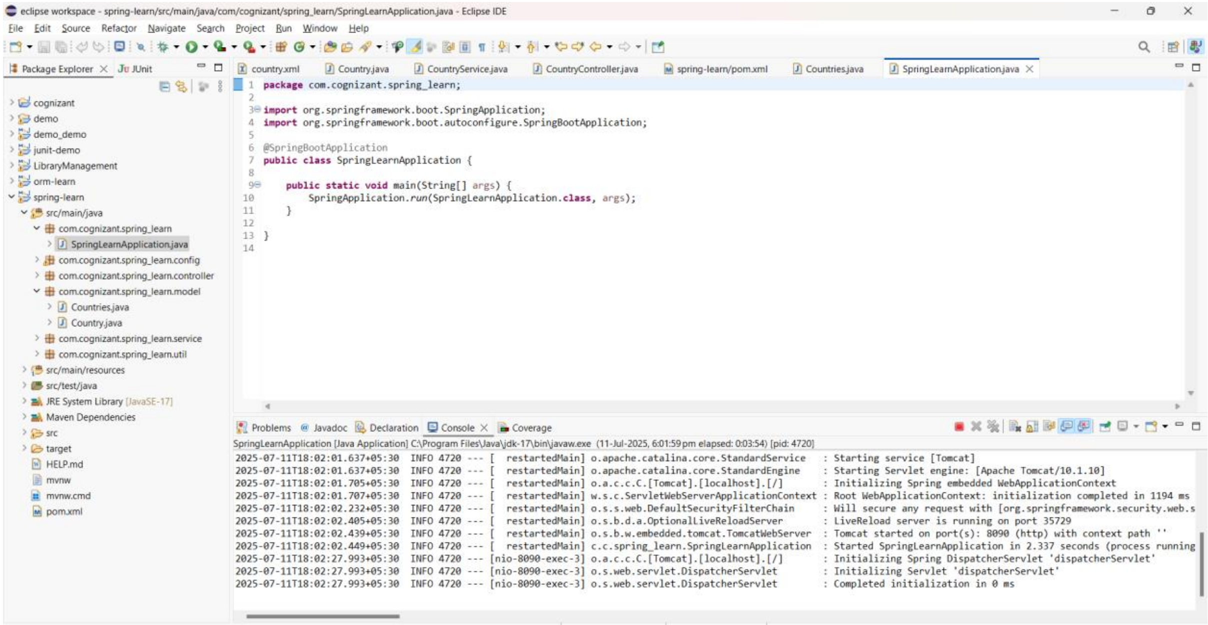
CountryController.java:

```
package com.cognizant.spring_learn.controller;
import com.cognizant.spring_learn.model.Country;
import com.cognizant.spring_learn.service.CountryService;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.web.bind.annotation.*;
@RestController
public class CountryController {
    @Autowired
    private CountryService countryService;
    @GetMapping("/countries/{code}")
    public Country getCountry(@PathVariable String code) {
        return countryService.getCountry(code);
    }
}
```

Countries.java:

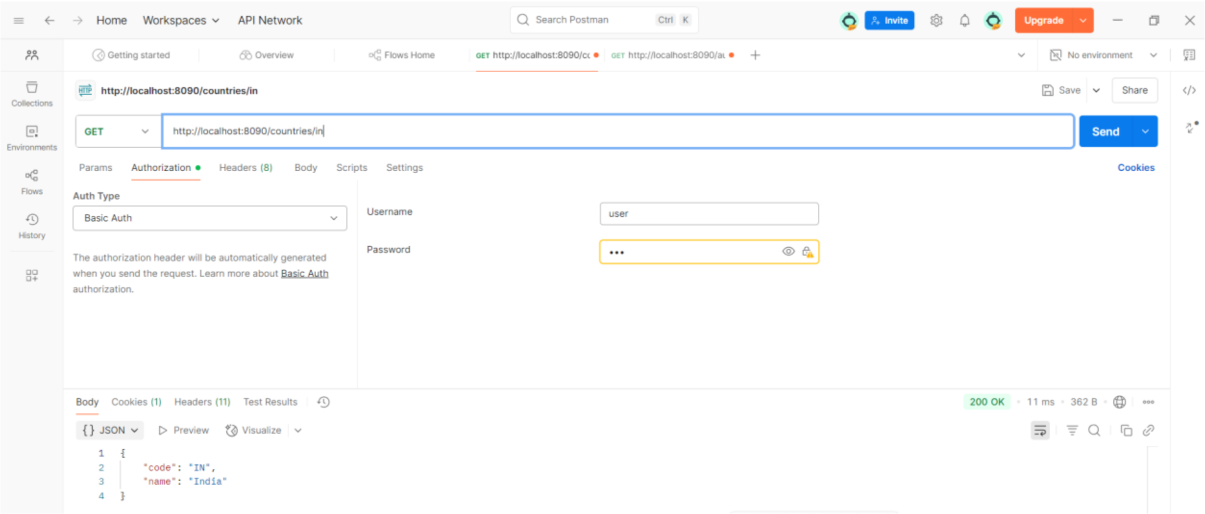
```
package com.cognizant.spring_learn.model;

import jakarta.xml.bind.annotation.XmlElement;

import jakarta.xml.bind.annotation.XmlRootElement;

import java.util.List;

@XmlRootElement(name = "countries")

public class Countries {

    private List<Country> country;

    @XmlElement(name = "country")

    public List<Country> getCountry() {

        return country;

    }

    public void setCountry(List<Country> country) {

        this.country = country;

    }

}
```

OUTPUTS:


eclipse workspace - spring-learn/src/main/java/com/cognizant/spring_learn/SpringLearnApplication.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer
JUnit
cognizant
demo
demo_demo
junit-demo
LibraryManagement
orm-learn
spring-learn
src/main/java
com.cognizant.spring_learn
SpringLearnApplication.java
com.cognizant.spring_learn.config
com.cognizant.spring_learn.controller
com.cognizant.spring_learn.model
Countries.java
Country.java
com.cognizant.spring_learn.service
com.cognizant.spring_learn.util
src/main/resources
src/test/java
JRE System Library [JavaSE-17]
Maven Dependencies
src
target
HELP.md
mvnw
mvnw.cmd
pom.xml
country.xml
Country.java
CountryService.java
CountryController.java
spring-learn/pom.xml
Countries.java
SpringLearnApplication.java
Problems
Javadoc
Declaration
Console
Coverage

```
package com.cognizant.spring_learn;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication
public class SpringLearnApplication {

    public static void main(String[] args) {
        SpringApplication.run(SpringLearnApplication.class, args);
    }

}
```

```
SpringLearnApplication [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe  (11-Jul-2025, 6:01:59 pm elapsed: 0:03:54) [pid: 4720]
2025-07-11T18:02:01.637+05:30  INFO 4720 --- [  restartedMain] o.apache.catalina.core.StandardService   : Starting service [Tomcat]
2025-07-11T18:02:01.637+05:30  INFO 4720 --- [  restartedMain] o.apache.catalina.core.StandardEngine    : Starting Servlet engine: [Apache Tomcat/10.1.10]
2025-07-11T18:02:01.705+05:30  INFO 4720 --- [  restartedMain] o.a.c.c.C.[Tomcat].[localhost].[/]       : Initializing Spring embedded WebApplicationContext
2025-07-11T18:02:01.707+05:30  INFO 4720 --- [  restartedMain] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initialization completed in 1194 ms
2025-07-11T18:02:02.232+05:30  INFO 4720 --- [  restartedMain] o.s.s.web.DefaultSecurityFilterChain     : Will secure any request with [org.springframework.security.web.s
2025-07-11T18:02:02.405+05:30  INFO 4720 --- [  restartedMain] o.s.b.d.a.OptionalLiveReloadServer       : LiveReload server is running on port 35729
2025-07-11T18:02:02.439+05:30  INFO 4720 --- [  restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer  : Tomcat started on port(s): 8090 (http) with context path ''
2025-07-11T18:02:02.449+05:30  INFO 4720 --- [  restartedMain] c.c.spring_learn.SpringLearnApplication  : Started SpringLearnApplication in 2.337 seconds (process running
2025-07-11T18:02:27.993+05:30  INFO 4720 --- [nio-8090-exec-3] o.a.c.c.C.[Tomcat].[localhost].[/]       : Initializing Spring DispatcherServlet 'dispatcherServlet'
2025-07-11T18:02:27.993+05:30  INFO 4720 --- [nio-8090-exec-3] o.s.web.servlet.DispatcherServlet        : Initializing Servlet 'dispatcherServlet'
2025-07-11T18:02:27.993+05:30  INFO 4720 --- [nio-8090-exec-3] o.s.web.servlet.DispatcherServlet        : Completed initialization in 0 ms
```



http://localhost:8090/countries/in

GET http://localhost:8090/countries/in

Auth Type: Basic Auth

The authorization header will be automatically generated when you send the request. Learn more about Basic Auth authorization.

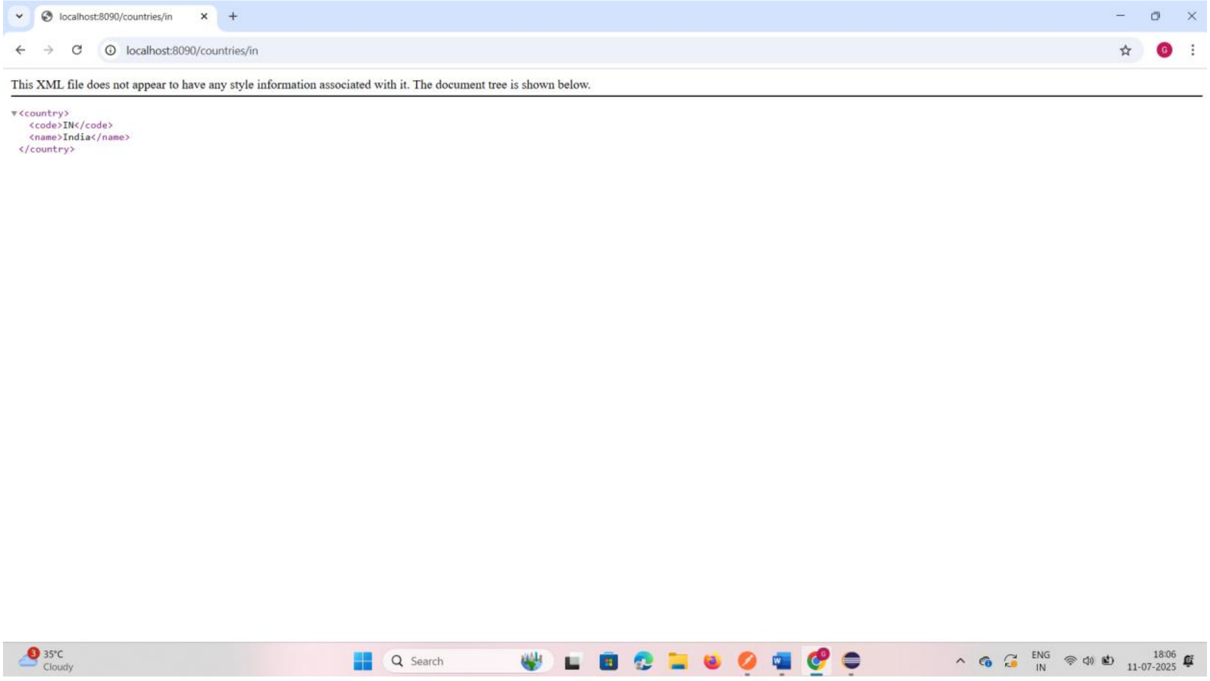
Username: user

Password: •••

200 OK · 11 ms · 362 B

Body { } JSON

```
{
    "code": "IN",
    "name": "India"
}
```



localhost:8090/countries/in

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
▼<country>
   <code>IN</code>
   <name>India</name>
 </country>
```