

# SOAP

- **Set Up a Spring Boot Project**

First we need to Create a new Project for SOAP API & some Dependency is mandatory for SOAP :

- Spring Web Services (for SOAP support)
- Spring Boot Starter Web (if needed for REST controllers)
- JAXB (for XML processing)

- **Go to Pom.xml file and dependency**

After Creation Go to inside the dependency file and add manual dependency:

```
<dependency>
    <groupId>wsdl4j</groupId>
    <artifactId>wsdl4j</artifactId>
</dependency>
```

- **Path of xsd file**

XML/XSD File to define the structure of SOAP requests and responses. It is Create inside the following path, it will automatically export as a WSDL. This schema will define elements like GetUserRequest, GetUserResponse.

- Src/main/resources/<your\_file\_name.xsd>  
Write code inside xsd file

- **Go to Pom.xml file**

After Creation of XSD File go to pom.xml(dependencies file) and inside the build section add plugins that contain the path of XSD file and output directory.

- **Generate Java Classes from XSD**

Use JAXB to generate Java classes from the XSD.

This allows Spring Boot to handle XML conversion automatically.

- **Run JAXB Code Generation**

- `mvn jaxb2:generate`

- **Verify Generated Java Classes**

The Java classes will be generated inside:

`target/generated-sources/jaxb/com/example/soap/model/`

- **Implementation**

Create service/config/endpoint .... Package and Class

- **For Testing API :**

**Endpoint** : `<Hostname>:<port no>/url/<bean name>.wsdl`

**Open** : SOAP UI Application > click on soap > paste endpoint in initial wsdl > OK > open projects (top left) > click on soap request > put data on code > run

Check on right side in xml pop-up