**Soap Message**

Webspsoapdemo

Javaworkfour

Create xsd file

**student.xsd** in resource file cre

<xs:schema xmlns:xs=*"http://www.w3.org/2001/XMLSchema"* xmlns:tns=*"http://www.howtodoinjava.com/xml/school"*

           targetNamespace=*"http://www.howtodoinjava.com/xml/school"* elementFormDefault=*"qualified"*>

  <xs:element name=*"StudentDetailsRequest"*>

    <xs:complexType>

      <xs:sequence>

        <xs:element name=*"name"* type=*"xs:string"*/>

      </xs:sequence>

    </xs:complexType>

  </xs:element>

  <xs:element name=*"StudentDetailsResponse"*>

    <xs:complexType>

      <xs:sequence>

        <xs:element name=*"Student"* type=*"tns:Student"*/>

      </xs:sequence>

    </xs:complexType>

  </xs:element>

  <xs:complexType name=*"Student"*>

    <xs:sequence>

      <xs:element name=*"name"* type=*"xs:string"*/>

      <xs:element name=*"standard"* type=*"xs:int"*/>

      <xs:element name=*"address"* type=*"xs:string"*/>

    </xs:sequence>

  </xs:complexType>

</xs:schema>

Create spring boot project add

Spring web

Spring web service dependency

**student.xsd** in resource folder

<xs:schema xmlns:xs=*"http://www.w3.org/2001/XMLSchema"* xmlns:tns=*"http://www.howtodoinjava.com/xml/school"*

           targetNamespace=*"http://www.howtodoinjava.com/xml/school"* elementFormDefault=*"qualified"*>

  <xs:element name=*"StudentDetailsRequest"*>

    <xs:complexType>

      <xs:sequence>

        <xs:element name=*"name"* type=*"xs:string"*/>

      </xs:sequence>

    </xs:complexType>

  </xs:element>

  <xs:element name=*"StudentDetailsResponse"*>

    <xs:complexType>

      <xs:sequence>

        <xs:element name=*"Student"* type=*"tns:Student"*/>

      </xs:sequence>

    </xs:complexType>

  </xs:element>

  <xs:complexType name=*"Student"*>

    <xs:sequence>

      <xs:element name=*"name"* type=*"xs:string"*/>

      <xs:element name=*"standard"* type=*"xs:int"*/>

      <xs:element name=*"address"* type=*"xs:string"*/>

    </xs:sequence>

  </xs:complexType>

</xs:schema>

**Add dependency in pom**

<dependency>

  <groupId>wsdl4j</groupId>

  <artifactId>wsdl4j</artifactId>

</dependency>

Add plugin

<plugin>

      <groupId>org.codehaus.mojo</groupId>

      <artifactId>jaxb2-maven-plugin</artifactId>

      <version>3.1.0</version>

      <executions>

        <execution>

          <id>xjc</id>

          <goals>

            <goal>xjc</goal>

          </goals>

        </execution>

      </executions>

      <configuration>

        <sources>

          <source>src/main/resources/student.xsd</source>

        </sources>

        <outputDirectory>src/main/java</outputDirectory>

        <clearOutputDir>false</clearOutputDir>

      </configuration>

    </plugin>

**import** org.springframework.boot.web.servlet.ServletRegistrationBean;

**add Config class**

**import** org.springframework.context.ApplicationContext;

**import** org.springframework.context.annotation.Bean;

**import** org.springframework.context.annotation.Configuration;

**import** org.springframework.core.io.ClassPathResource;

**import** org.springframework.ws.config.annotation.EnableWs;

**import** org.springframework.ws.config.annotation.WsConfigurerAdapter;

**import** org.springframework.ws.transport.http.MessageDispatcherServlet;

**import** org.springframework.ws.wsdl.wsdl11.DefaultWsdl11Definition;

**import** org.springframework.xml.xsd.SimpleXsdSchema;

**import** org.springframework.xml.xsd.XsdSchema;

@EnableWs

@Configuration

**public** **class** SoapConfig **extends** WsConfigurerAdapter {

  @Bean

**public** ServletRegistrationBean messageDispatcherServlet(ApplicationContext applicationContext) {

    MessageDispatcherServlet servlet = **new** MessageDispatcherServlet();

    servlet.setApplicationContext(applicationContext);

    servlet.setTransformWsdlLocations(**true**);

**return** **new** ServletRegistrationBean(servlet, "/service/\*");

  }

  @Bean(name = "studentDetailsWsdl")

**public** DefaultWsdl11Definition defaultWsdl11Definition(XsdSchema studentSchema) {

    DefaultWsdl11Definition wsdl11Definition = **new** DefaultWsdl11Definition();

    wsdl11Definition.setPortTypeName("StudentDetailsPort");

    wsdl11Definition.setLocationUri("/service/student-details");

    wsdl11Definition.setTargetNamespace("http://www.howtodoinjava.com/xml/school");

    wsdl11Definition.setSchema(studentSchema);

**return** wsdl11Definition;

  }

  @Bean

**public** XsdSchema studentSchema() {

**return** **new** SimpleXsdSchema(**new** ClassPathResource("student.xsd"));

  }

}

**Write StudentEndpoint**

**package** com.example.demo;

**import** org.springframework.beans.factory.annotation.Autowired;

**import** org.springframework.ws.server.endpoint.annotation.Endpoint;

**import** org.springframework.ws.server.endpoint.annotation.PayloadRoot;

**import** org.springframework.ws.server.endpoint.annotation.RequestPayload;

**import** org.springframework.ws.server.endpoint.annotation.ResponsePayload;

**import** com.howtodoinjava.xml.school.Student;

**import** com.howtodoinjava.xml.school.StudentDetailsRequest;

**import** com.howtodoinjava.xml.school.StudentDetailsResponse;

@Endpoint

**public** **class** StudentEndpoint

{

**private** **static** **final** String ***NAMESPACE\_URI*** = "http://www.howtodoinjava.com/xml/school";

  @PayloadRoot(namespace = ***NAMESPACE\_URI***, localPart = "StudentDetailsRequest")

  @ResponsePayload

**public** StudentDetailsResponse getStudent(@RequestPayload StudentDetailsRequest request) {

    StudentDetailsResponse response = **new** StudentDetailsResponse();

    Student obs= **new** Student();

    obs.setName(request.getName());

    System.***out***.println(request.getName());

    response.setStudent(obs);

**return** response;

  }

}

Test it

<http://localhost:8081/service/studentDetailsWsdl.wsdl>

<http://localhost:8082/service/studentDetailsWsdl.wsdl>

SoapUi

request

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:sch="http://www.howtodoinjava.com/xml/school">

   <soapenv:Header/>

   <soapenv:Body>

      <sch:StudentDetailsRequest>

         <sch:name>ravi</sch:name>

      </sch:StudentDetailsRequest>

   </soapenv:Body>

</soapenv:Envelope>

Response

TTP/1.1 200

Accept: text/xml, text/html, image/gif, image/jpeg, \*; q=.2, \*/\*; q=.2

SOAPAction: ""

Content-Type: text/xml;charset=utf-8

Content-Length: 338

Date: Sat, 12 Oct 2024 10:07:05 GMT

Keep-Alive: timeout=60

Connection: keep-alive

<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"><SOAP-ENV:Header/><SOAP-ENV:Body><ns2:StudentDetailsResponse xmlns:ns2="http://www.howtodoinjava.com/xml/school"><ns2:Student><ns2:name>ravi</ns2:name><ns2:standard>0</ns2:standard></ns2:Student></ns2:StudentDetailsResponse></SOAP-ENV:Body></SOAP-ENV:Envelope>

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<project xmlns=*"http://maven.apache.org/POM/4.0.0"* xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"*

xsi:schemaLocation=*"http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-4.0.0.xsd"*>

<modelVersion>4.0.0</modelVersion>

<parent>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-parent</artifactId>

<version>3.3.4</version>

<relativePath/> <!-- lookup parent from repository -->

</parent>

<groupId>com.ex</groupId>

<artifactId>webspsoapdemo</artifactId>

<version>0.0.1-SNAPSHOT</version>

<name>webspsoapdemo</name>

<description>Demo project for Spring Boot</description>

<url/>

<licenses>

<license/>

</licenses>

<developers>

<developer/>

</developers>

<scm>

<connection/>

<developerConnection/>

<tag/>

<url/>

</scm>

<properties>

<java.version>17</java.version>

</properties>

<dependencies>

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-web</artifactId>

</dependency>

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-web-services</artifactId>

</dependency>

<dependency>

  <groupId>wsdl4j</groupId>

  <artifactId>wsdl4j</artifactId>

</dependency>

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-test</artifactId>

<scope>test</scope>

</dependency>

</dependencies>

<build>

<plugins>

<plugin>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-maven-plugin</artifactId>

</plugin>

<plugin>

      <groupId>org.codehaus.mojo</groupId>

      <artifactId>jaxb2-maven-plugin</artifactId>

      <version>3.1.0</version>

      <executions>

        <execution>

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      </executions>

      <configuration>

        <sources>

          <source>src/main/resources/student.xsd</source>

        </sources>

        <outputDirectory>src/main/java</outputDirectory>

        <clearOutputDir>false</clearOutputDir>

      </configuration>

    </plugin>

</plugins>

</build>

</project>