

# WSDL Components

**WSDL Message :** Message is the abstract definition of data exchanged between web service provider and consumer. Each web service has two messages : input message and output message. Input describes the parameters for the web service and the output describes the return data from the web service.

```
<message name="getTermRequest">
  <part name="term" type="xs:string"/>
</message>

<message name="getTermResponse">
  <part name="value" type="xs:string"/>
</message>
```

**WSDL PortType :** PortType is the abstract set of named operations/methods mapped to one or more end points.

```
<portType name="glossaryTerms">
  <operation name="getTerm">
    <input message="getTermRequest"/>
    <output message="getTermResponse"/>
  </operation>
</portType>
```

## WSDL Message and PortType

```
<message name="getTermRequest">
  <part name="term" type="xs:string"/>
</message>

<message name="getTermResponse">
  <part name="value" type="xs:string"/>
</message>

<portType name="glossaryTerms">
  <operation name="getTerm">
    <input message="getTermRequest"/>
    <output message="getTermResponse"/>
  </operation>
</portType>
```

**WSDL Bindings :** Binding is the concrete protocol and data formats for the operations and messages defined for a particular portType.

```
<message name="getTermRequest">
  <part name="term" type="xs:string"/>
</message>

<message name="getTermResponse">
  <part name="value" type="xs:string"/>
</message>
```

#### **For Example - Message**

```
public String getInfo(String empId) {
....;
}
<message name="getInfoRequest">
  <part name="empId" type="xsd:string"/>
</message>

<message name="getInfoResponse">
  <part name="value" type="xsd:string"/>
</message>
```

#### **PORTType**

```
<portType name="glossaryTerms">
  <operation name="getTerm">
    <input message="getTermRequest"/>
    <output message="getTermResponse"/>
  </operation>
</portType>
```

#### **For Example - PortType**

```
public String getInfo(String empId) {
....;
}
<portType name="getInfo_PortType">
  <operation name="getInfo">
    <input message="getInfoRequest"/>
    <output message="getInfoResponse"/>
  </operation>
</portType>
```

### **Binding**

```
<binding name="b1" type="glossaryTerms">
  <soap:binding style="document"
    transport="http://schemas.xmlsoap.org/soap/http" />
  <operation>
    <soap:operation soapAction="http://example.com/getTerm"/>
    <input><soap:body use="literal"/></input>
    <output><soap:body use="literal"/></output>
  </operation>
</binding>
```

### **For Example - Binding**

```
public String getInfo(String empId) {
....;
}
<binding name="b1" type="getInfo_PortType">
  <soap:binding style="document"
    transport="http://schemas.xmlsoap.org/soap/http" />
  <operation>
    <soap:operation soapAction="http://example.com/getInfo"/>
    <input>
      <soap:body use="literal"/>
    </input>

    <output>
      <soap:body use="literal"/>
    </output>

  </operation>
</binding>
```

**WSDL Service : Service is a collection of end points encompassing service definition.**

```
<service name="Hello_Service">
  <documentation>WSDL File for HelloService</documentation>
  <port name="Hello_Port" binding="tns:Hello_Binding">
    <soap:address location="http://www.examples.com/SayHello/">
  </port>
</service>
```

**PORT :** A port defines an individual end point by specifying the single address for a binding. The port element has two attributes: *name* and *binding*. Binding provides information about what protocol is being used to transfer portType operations.