

Difference between RPC and Document web services

There are many differences between RPC and Document web services. The important differences between RPC and Document are given below:

RPC Style

- 1) RPC style web services use method name and parameters to generate XML structure.
- 2) The generated WSDL is **difficult to be validated** against schema.
- 3) In RPC style, SOAP **message is sent as many elements**.
- 4) RPC style message is **tightly coupled**.
- 5) In RPC style, SOAP message **keeps the operation name**.
- 6) In RPC style, parameters are sent as **discrete values**.

Let's see the RPC style generated WSDL file.

WSDL file:

In WSDL file, it doesn't specify the types details.

```
<types/>
```

For message part, it defines name and type attributes.

```
<message name="getHelloWorldAsString">
  <part name="arg0" type="xsd:string"/>
</message>
<message name="getHelloWorldAsStringResponse">
  <part name="return" type="xsd:string"/>
</message>
```



For soap:body, it defines use and namespace attributes.

```
<binding name="HelloWorldImplPortBinding" type="tns:HelloWorld">
  <soap:binding transport="http://schemas.xmlsoap.org/soap/http" style="rpc"/>
  <operation name="getHelloWorldAsString">
    <soap:operation soapAction=""/>
    <input>
      <soap:body use="literal" namespace="http://javatpoint.com/" />
    </input>
    <output>
      <soap:body use="literal" namespace="http://javatpoint.com/" />
    </output>
  </operation>
</binding>
```

Document Style

- 1) Document style web services **can be validated against predefined schema**.
- 2) In document style, SOAP message is **sent as a single document**.
- 3) Document style message is **loosely coupled**.
- 4) In Document style, SOAP message **loses the operation name**.
- 5) In Document style, parameters are sent in **XML format**.

Let's see the Document style generated WSDL file.



WSDL file:

In WSDL file, it specifies types details having namespace and schemaLocation.

```
<types>
<xsd:schema>
<xsd:import namespace="http://javatpoint.com/" schemaLocation="http://localhost:7779/ws/hello?
xsd=1"/>
</xsd:schema>
</types>
```

For message part, it defines name and element attributes.

```
<message name="getHelloWorldAsString">
<part name="parameters" element="tns:getHelloWorldAsString"/>
</message>
<message name="getHelloWorldAsStringResponse">
<part name="parameters" element="tns:getHelloWorldAsStringResponse"/>
</message>
```

For soap:body, it defines use attribute only not namespace.

```
<binding name="HelloWorldImplPortBinding" type="tns:HelloWorld">
<soap:binding transport="http://schemas.xmlsoap.org/soap/http" style="document"/>
<operation name="getHelloWorldAsString">
<soap:operation soapAction=""/>
<input>
<soap:body use="literal"/>
</input>
<output>
<soap:body use="literal"/>
</output>
</operation>
</binding>
```

← prev

next →

