

# WSDL



Miguel Ángel Carrera  
Xavier Font  
Marc Soler  
Fredy Gallegos

# Qué ès?



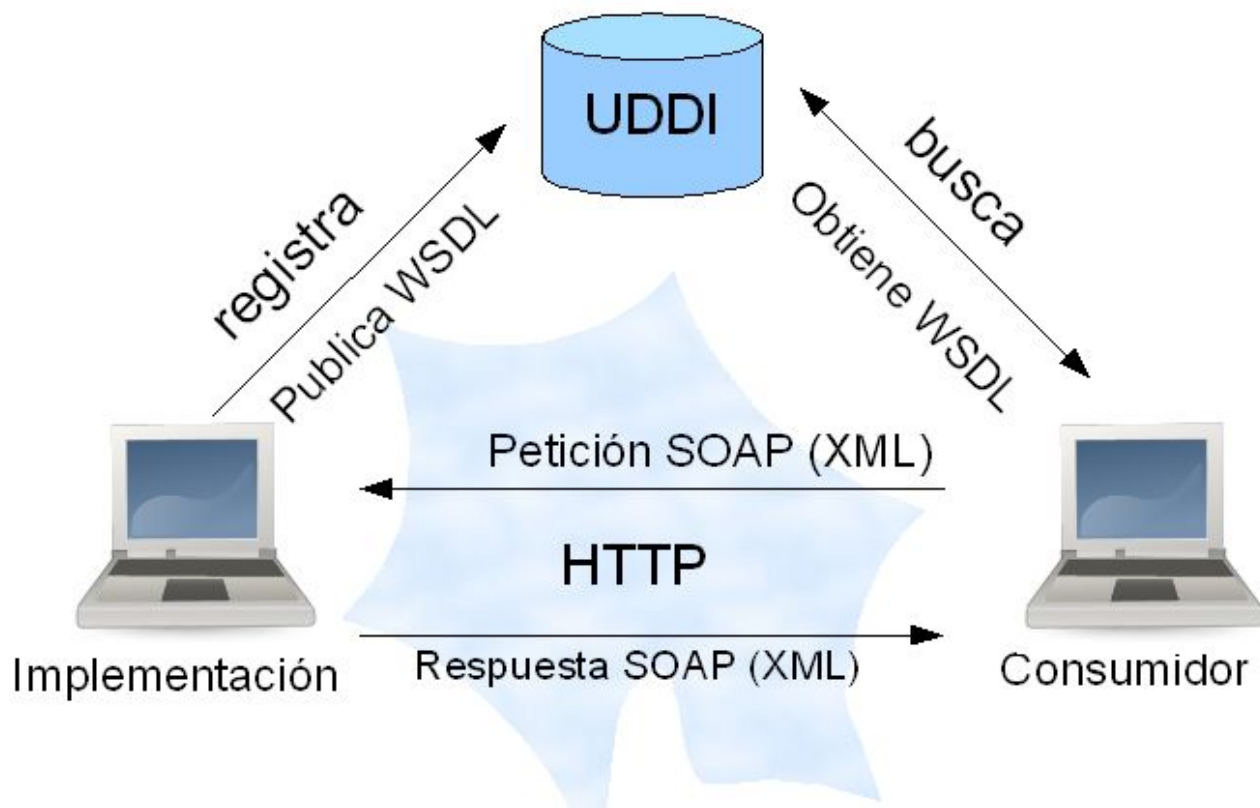
# Quin format té?

- Tipus de dades <**types**>
- Missatge <**message**>
- Tipus de port <**portType**>
- Binding <**binding**>
- Serveis <**service**>

# Fites: De versió 1.1 a 2.0



# Características relevantes



# Exemples d'us a nivell de codi

## Definición de tipos y namespaces en un doc. WSDL

```
<definitions xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:si="http://soapinterop.org/xsd"
  xmlns:tns="https://graphical.weather.gov/xml/DWMLgen/wsdl/ndfdXML.wsdl"
  xmlns:typens="https://graphical.weather.gov/xml/DWMLgen/schema/DWML.xsd"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
  xmlns="http://schemas.xmlsoap.org/wsdl/"
  targetNamespace="https://graphical.weather.gov/xml/DWMLgen/wsdl/ndfdXML.wsdl">
```

```
<message name="NDFDgenByDayRequest">
  <part name="latitude" type="xsd:decimal" />
  <part name="longitude" type="xsd:decimal" />
  <part name="startDate" type="xsd:date" />
  <part name="numDays" type="xsd:integer" />
  <part name="Unit" type="typens:unitType" />
  <part name="format" type="typens:formatType" />
</message>
```

## Describiendo la interface del WebService - “binding” con la interface del WebService

```
<portType name="ndfdXMLPortType">

  <operation name="NDFDgenByDay">
    <documentation>Returns National Weather Service digital
      weather forecast data summarized over either 24- or 12-hourly periods
    </documentation>
    <input message="tns:NDFDgenByDayRequest"/>
    <output message="tns:NDFDgenByDayResponse"/>
  </operation>

</portType>

<binding name="ndfdXMLBinding" type="tns:ndfdXMLPortType">
  <soap:binding style="rpc" transport="http://schemas.xmlsoap.org/soap/http"/>

  <operation name="NDFDgenByDay">
    <soap:operation soapAction="https://graphical.weather.gov/xml/DWMLgen/wsdl/ndfdXML.wsdl#NDFDgenByDay">
      <input>
        <soap:body use="encoded" namespace="https://graphical.weather.gov/xml/DWMLgen/wsdl/ndfdXML.wsdl" encoding="base64"/>
      </input>
      <output>
        <soap:body use="encoded" namespace="https://graphical.weather.gov/xml/DWMLgen/wsdl/ndfdXML.wsdl" encoding="base64"/>
      </output>
    </soap:operation>
  </operation>

</binding>
```



```
<service name="ndfdXML">
  <documentation>The service has 12 exposed functions, NDFDgen, NDFDgenLatLonList,
    NDFDgenByDay, NDFDgenByDayLatLonList,
    LatLonListSubgrid, LatLonListLine,
    LatLonListZipCode, CornerPoints,
    LatLonListSquare, GmlLatLonList,
    GmlTimeSeries, and LatLonListCityNames.
    For the NDFDgen function,
    ...
  </documentation>

  <port name="ndfdXMLPort" binding="tns:ndfdXMLBinding">
    <soap:address location="https://graphical.weather.gov/xml/SOAP_server/ndfdXMLserver.php"/>
  </port>
</service>
```



# National Digital Forecast Database (NDFD)

## National Weather Service

### NDFDgenByDay() function:

```
<temperature type="maximum" units="Celsius"
  <name>Daily Maximum Temperature</name>
  <value>10</value>
  <value>8</value>
  <value>7</value>
  <value>13</value>
  <value>16</value>
  <value>12</value>
  <value>9</value>
</temperature>
```

```
<temperature type="minimum" units="Celsius"
  <name>Daily Minimum Temperature</name>
  <value>1</value>
  <value>-2</value>
  <value>3</value>
  <value>8</value>
  <value>8</value>
  <value>1</value>
  <value xsi:nil="true"/>
</temperature>
```

```
<probability-of-precipitation t
  <name>12 Hourly Probability o
    <value>1</value>
    <value>1</value>
    <value>0</value>
    <value>0</value>
    <value>2</value>
    <value>10</value>
    <value>21</value>
    <value>56</value>
    <value>68</value>
    <value>47</value>
    <value>20</value>
    <value>10</value>
    <value>10</value>
    <value xsi:nil="true"/>
  </probability-of-precipitation>
```

# Punts forts



# Punts dèbils

```
<?xml version="1.0"?>
<quiz>
  <qanda seq="1">
    <question>
      Who was the forty-second
      president of the U.S.A.?
    </question>
    <answer>
      William Jefferson Clinton
    </answer>
  </qanda>
  <!-- Note: We need to add
  more questions later.-->
</quiz>
```

**XML**



# Conclusions

- Arxiu en XML per saber com enviar i rebre peticions a un servidor
- L'arxiu consta de 5 parts que permeten definir la comunicació
- L'empresa et pot donar aquest arxiu o el pots obtenir d'una UDDI
- Ho utilitzen empreses como un banc que han de saber detalladament la comunicació
- Es difícil de llegir i cada cop que fas un canvi al servidor ho has de modificar a aquest arxiu.
- WSDL no té la possibilitat d'especificar una seqüència de les operacions necessàries en un intercanvi de missatges (per exemple, un login previ).

# Referencies usades durant la presentació

- <https://es.wikipedia.org/wiki/WSDL>
- <https://www.youtube.com/watch?v=lyxJQWUymV4>
- <https://www.w3.org/TR/2007/NOTE-wsdl20-soap11-binding-20070626/>
- <http://soaint.com/cuales-son-las-diferencias-entre-wsdl-1-1-vs-wsdl-2-0/>
- [https://www.tutorialspoint.com/wsdl/wsdl\\_example.htm](https://www.tutorialspoint.com/wsdl/wsdl_example.htm)
- <https://slideplayer.es/slide/2714051/>
- <https://graphical.weather.gov/xml/>

# Com s'han repartit les tasques

- Cada alumne ha fet un 25% del treball, tot i que hem col·laborat entre nosaltres per fer la majoria d'apartats