

Esame di Architetture Orientate ai Servizi
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Exercise 1 (18 points)

Consider the WSDL interface in the next page:

1. Write a valid SOAP request and response for this service.
2. What would happen if a request containing Birthdate value of 19-2-2020 is delivered to the service? Can you improve the service behavior in this case?
3. Propose improvements to the type declarations that would prevent invalid requests

Exercise 2 (12 points)

Show an example of how you would use a header to add a timestamp and a nonce to the requests to enable request logging at the web service side. Would an intermediary be needed? If so, what would be its role?

```

<?xml version="1.0"?>
<definitions name="PassGate"
  targetNamespace="http://example.com/passgate.wsd1"
  xmlns:tns="http://example.com/passgate.wsd1"
  xmlns:xsd1="http://example.com/passgate.xsd"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns="http://schemas.xmlsoap.org/wsdl/">
  <types>
    <schema targetNamespace="http://example.com/PassGate.xsd"
      xmlns="http://www.w3.org/2000/10/XMLSchema">
      <element name="PassPortHolder">
        <complexType>
          <all>
            <element name="Surname" type="string"/>
            <element name="Name" type="string"/>
            <element name="Gender" type="string"/>
            <element name="Birthdate" type="date"/>
          </all>
        </complexType>
      </element>
      <element name="ReleaseData">
        <complexType>
          <all>
            <element name="Country" type="string"/>
            <element name="ReleaseDate" type="date"/>
            <element name="Expirydate" type="date"/>
          </all>
        </complexType>
      </element>
      <element name="Response">
        <complexType>
          <all>
            <element name="Valid" type="string"/>
          </all>
        </complexType>
      </element>
    </schema>
  </types>
  <message name="CheckPassportInput">
    <part name="body1" element="xsd1:PassportHolder"/>
    <part name="body2" element="xsd1:ReleaseData"/>
  </message>
  <message name="CheckPassportOutput">
    <part name="body" element="xsd1:Response"/>
  </message>
  <portType name="CheckPassportPortType">
    <operation name="CheckPassport">
      <input message="tns:CheckPassportInput"/>
      <output message="tns:CheckPassportOutput"/>
    </operation>
  </portType>
  <binding name="PassGateSoapBinding" type="tns:CheckPassportPortType">
    <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/1
    <operation name="CheckPassport">
      <soap:operation soapAction="http://example.com/PassGateService"/>
      <input>
        <soap:body use="literal"/>
      </input>
      <output>
        <soap:body use="literal"/>
      </output>
    </operation>
  </binding>
  <service name="PassGateService">
    <documentation>Remote Passport Control</documentation>
    <port name="PassGatePort" binding="tns:PassGateSoapBinding">
      <soap:address location="http://example.com/PassGateService"/>
    </port>
  </service>

```

