Contents of today’s hands-on sessions:

- **Back to WSDLs** focus on documentation
- **Using common Schemas** example: BioXSD for sequence data & simple types
- **Semantic annotation of Web services** using EDAM and SAWSDL
Back to the WSDLs:

Open a WSDL of your choice
   a WSDL of your service, or an example from yesterday

Check if it’s using *document-literal-wrapped* SOAP binding
   for REST services and WSDL2, the *wrapped* design is also useful/needed
   (refer to the template.wsdl for *document-literal-wrapped* style)

Check the documentation in the WSDL
   portType/interface and operations inside portType (functionality documentation)
   types, elements, and attributes in the schema (input/output documentation)
   update your documentation if needed
How to document a Web service?

wsdl:definitions
  wsdl:service
    wsdl:port
      → wsdl:binding
        → wsdl:portType
          * wsdl:operation
            wsdl:input
            wsdl:fault
            wsdl:output
              → wsdl:message
                wsdl:part
                  → xs:element
                    xs:complexType
                    xs:sequence
                      * xs:element
                        → more types, elements, attributes, enumerations ..
Using common Schemas:

Open the WSDL of your choice

- a WSDL of your service, or an example from yesterday

Open the BioXSD documentation at


Import the BioXSD or another Schema into your WSDL

```xml
```

1. check out template-exampleWithBioXSD.wsdl
2. try to use types from the imported Schema, in places where they apply to your I/O
How to annotate Web services?

wsdl:definitions

wsdl:service

wsdl:port

→ wsdl:binding

→ wsdl:portType

  * wsdl:operation

  wsdl:input

  wsdl:fault

  wsdl:output

  → wsdl:message

  wsdl:part

  → xs:element

  xs:complexType

  xs:sequence

  * xs:element

  → more types, elements, attributes, enumerations ..
Semantic annotation of a Web service:

Open a WSDL of your choice

Open a template WSDL for SAWSDL annotation
template-exampleWithAnnotation.wsdl

Open EDAM
either the EDAM-1.1.obo in OBO-Edit2 (the Ontology Tree Editor tab)
or at http://bioportal.bioontology.org/ontologies/46769?p=terms (1.0)

Annotate your WSDL with concepts from EDAM, using the template
e.g. sawsdl:modelReference="http://edamontology.org/topic_2830"