

Vajalikud lingid:

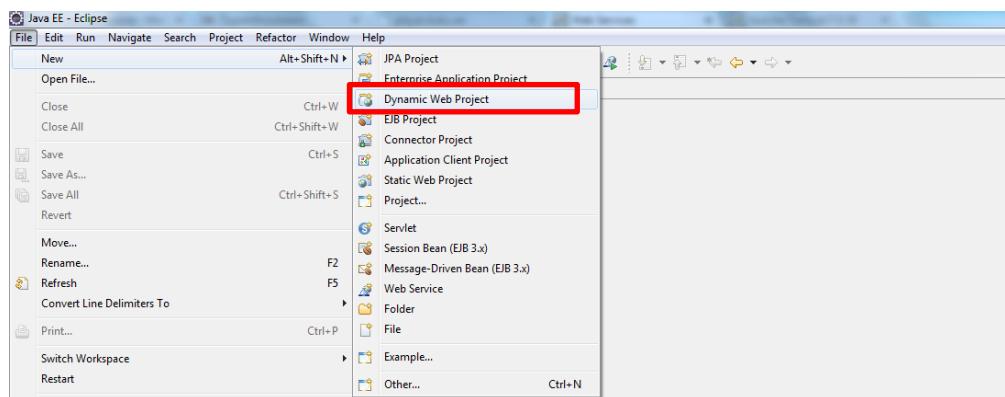
1. Üldine teenuste link: <http://tund.ttu.ee/orderservice/orders>
2. Tellimuste teenused: <http://tund.ttu.ee/orderservice/orders?wsdl>
3. WSDL-id: <https://cloud.id.ttu.ee/svn/ida0080/ryhmirina/branches/yI5/>

Vajalikud vahendid: Eclipse, soapUI, Apache CXF

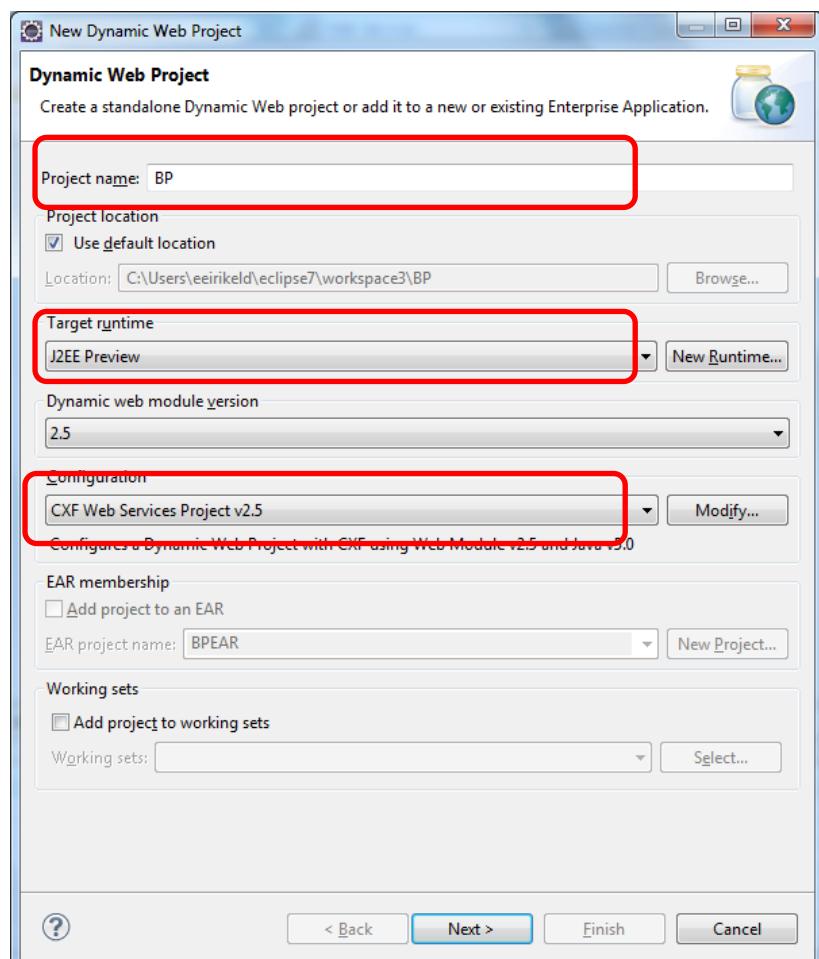
Eeldused: Apache CXF ja JAVA on seadistatud

Mida teha:

Tee uus *Dynamic Web Project* nimega BP

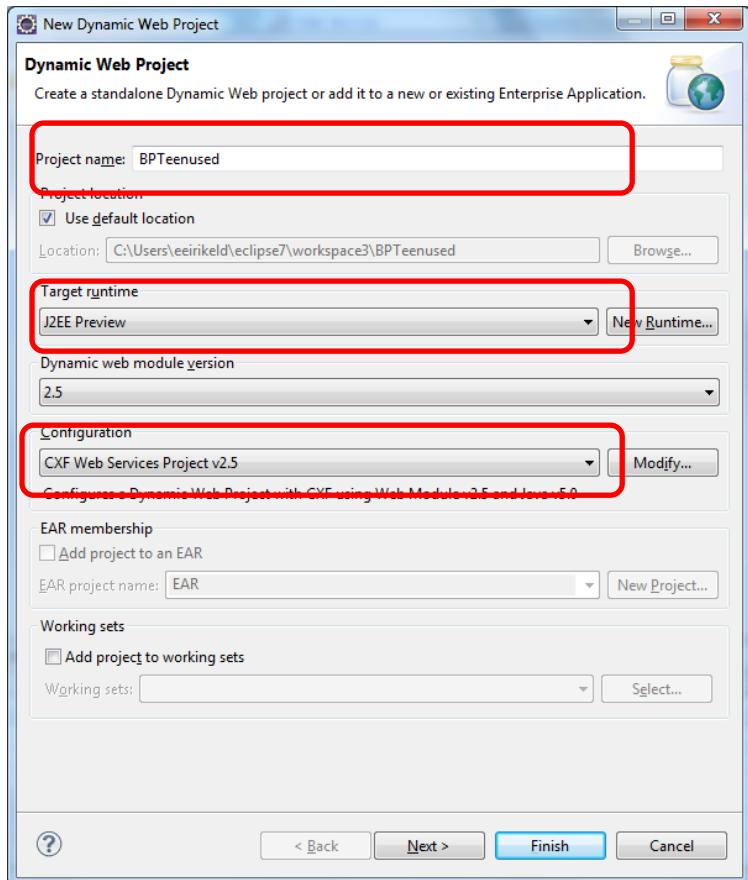


Veendu, et Target runtime ja Configuration on paigas:



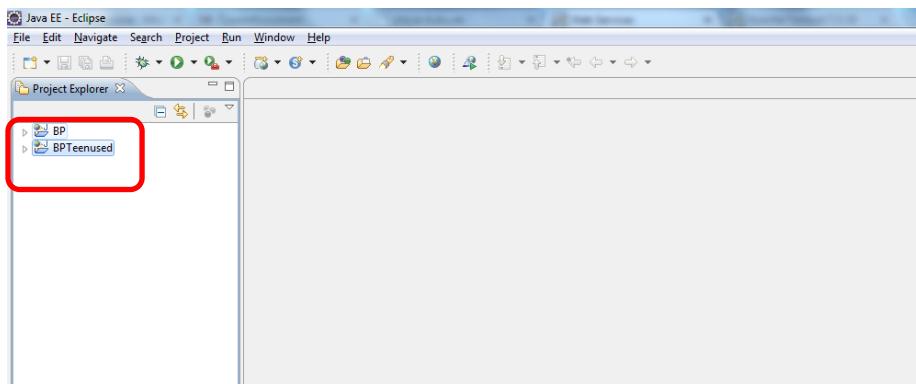
Vajuta Next->Next->Finish

Tee nüüd analoogselt projekt nimega BPTeenused

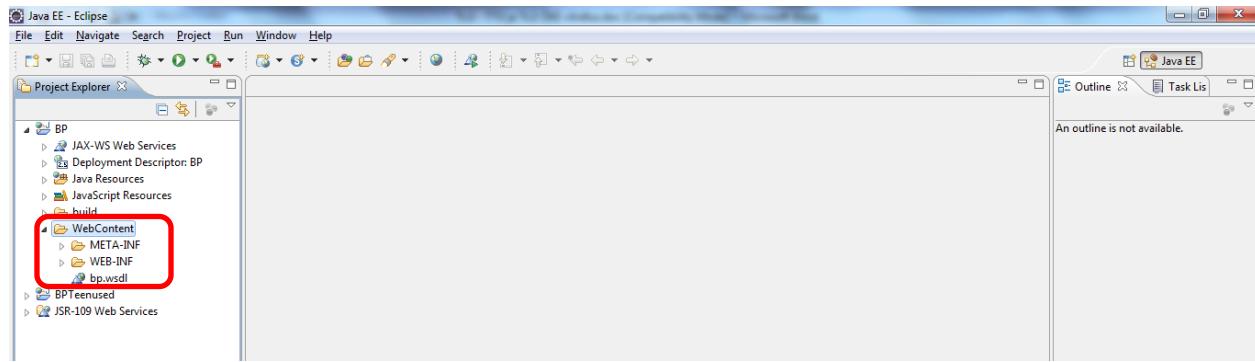
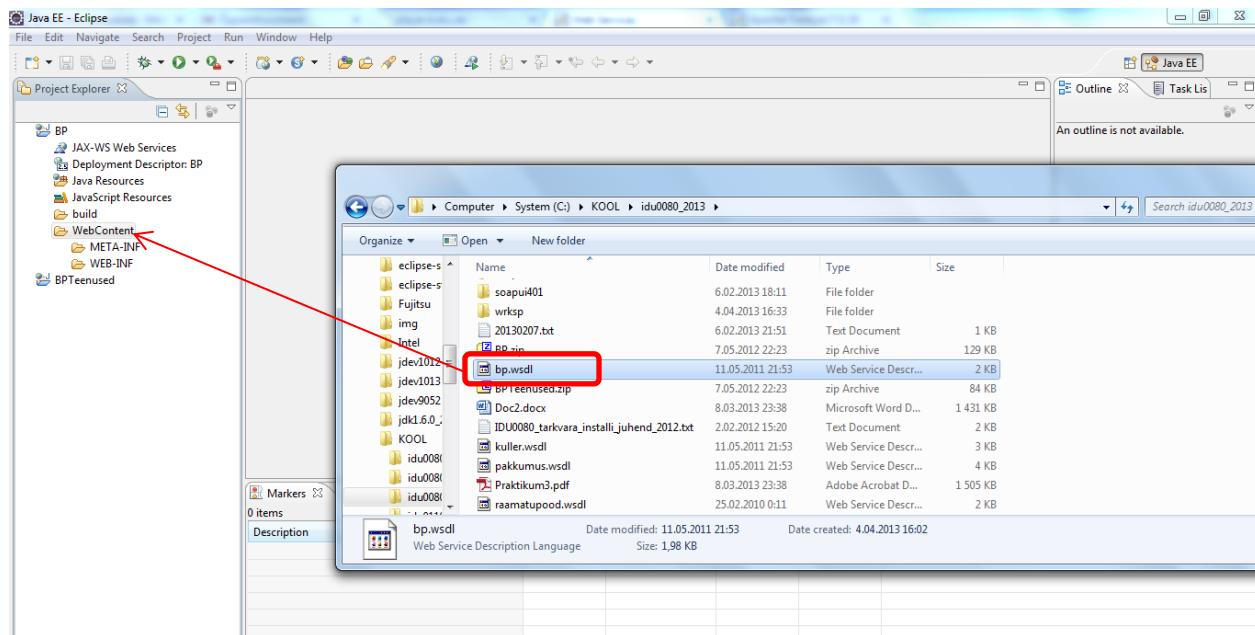


Vajuta Next->Next->Finish

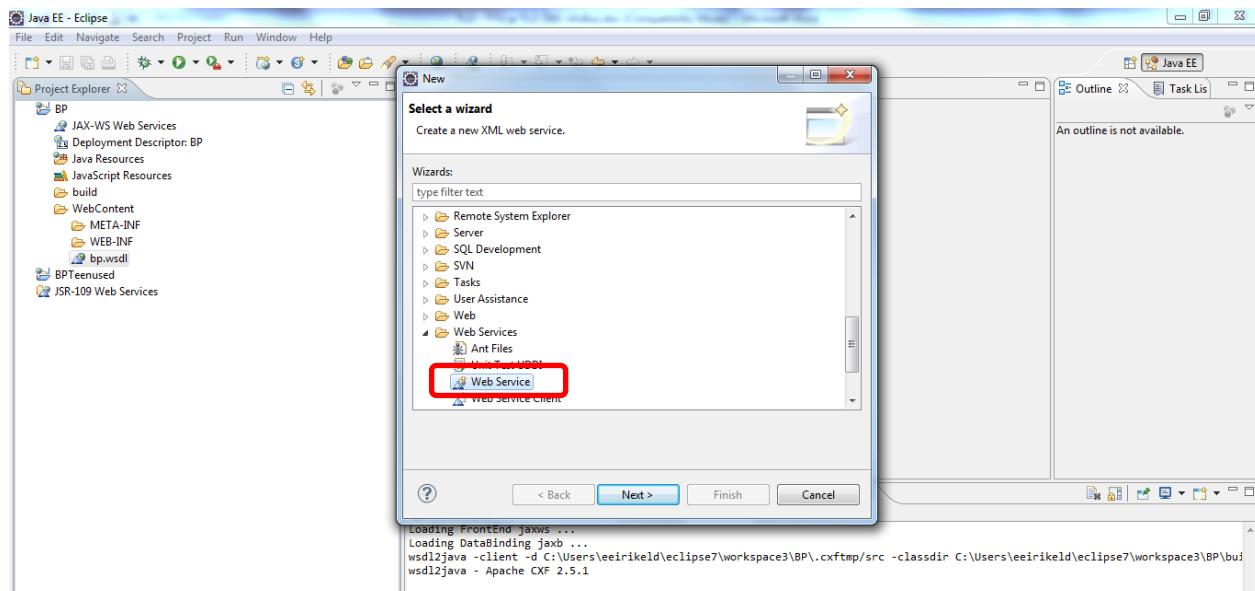
Veendu, et mõlemad projektid on kenasti loodud:



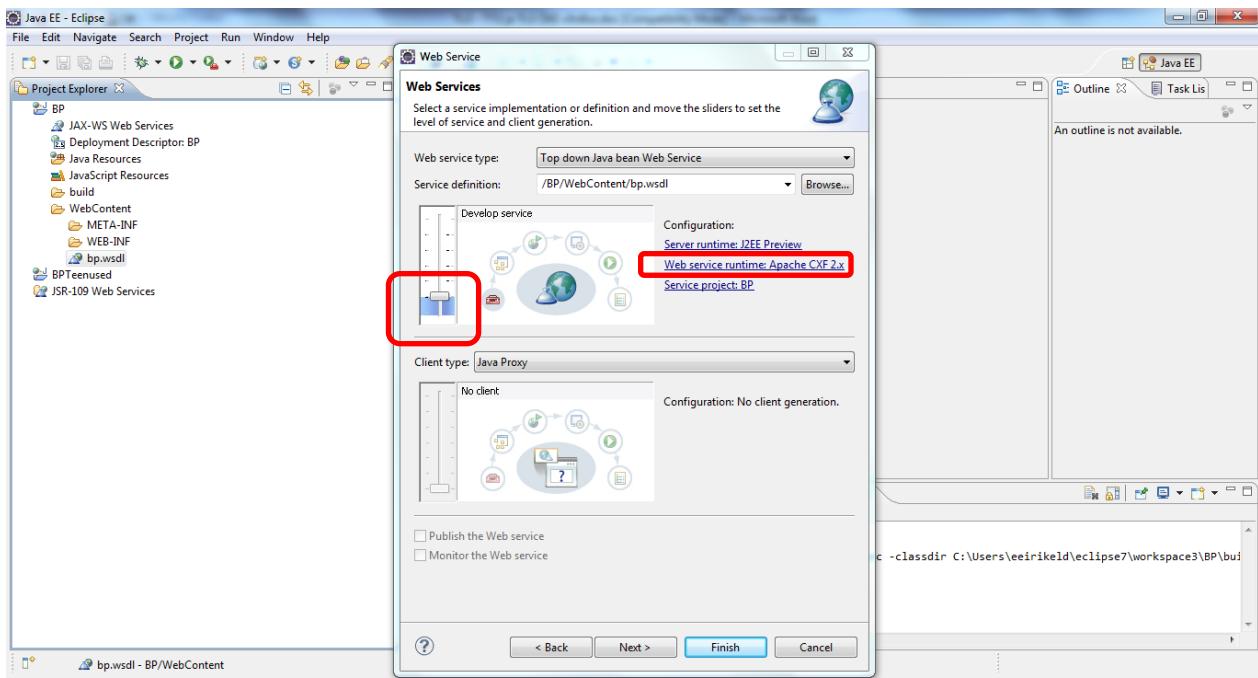
Tee lahti projekt BP ja tiri WebContent alla bp.wsdl



Navigeerib bp.wsdl peale, vajuta hiire paremat nuppu ja tee uus veebiteenus

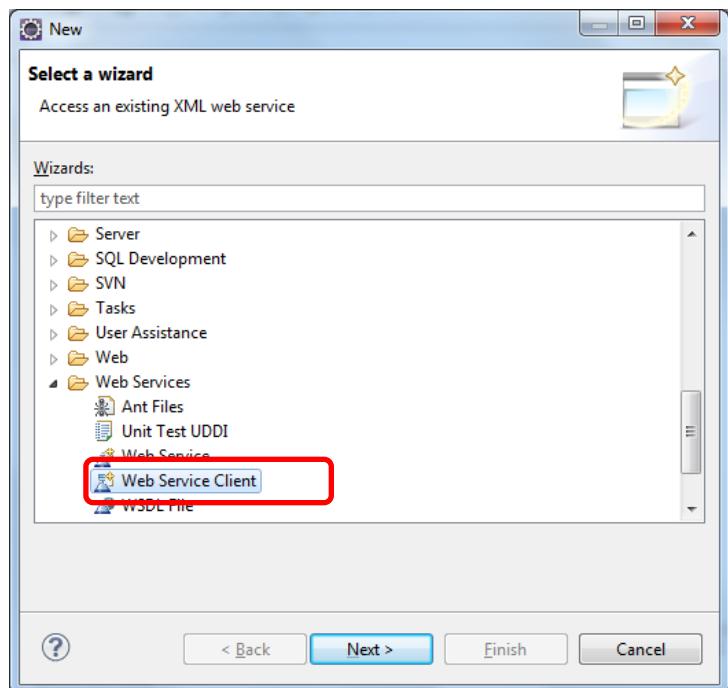


Veebiteenuse tegemisel, et kõik vajalikud asjad on paigas:

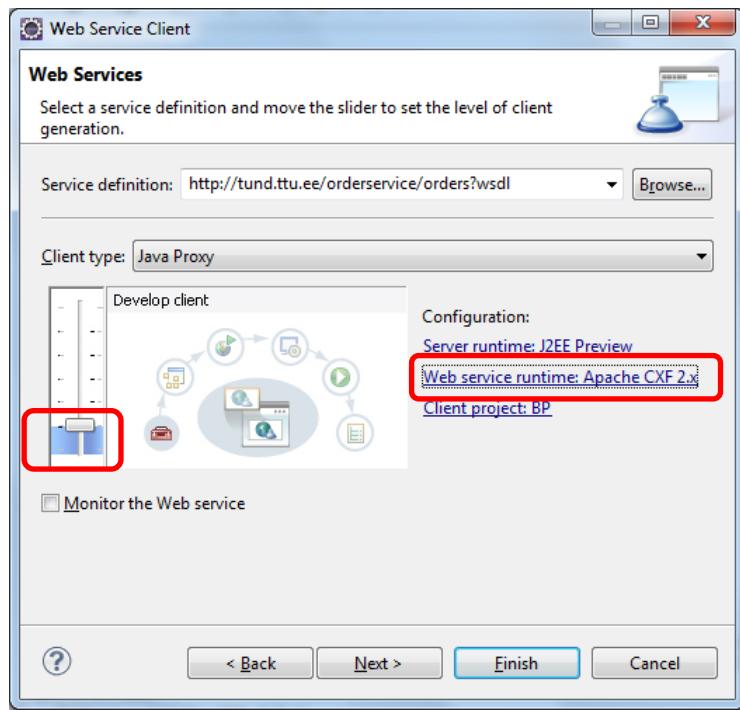


Vajuta Next jne.

Nüüd tee uus veebiteenuse klient, mis küsib tellimuse andmed tund.ttu.ee serverilt. Selleks navegeeri projekti juurikapeale, vajuta hiire parem nuppu ja vali New->ohter->web service client

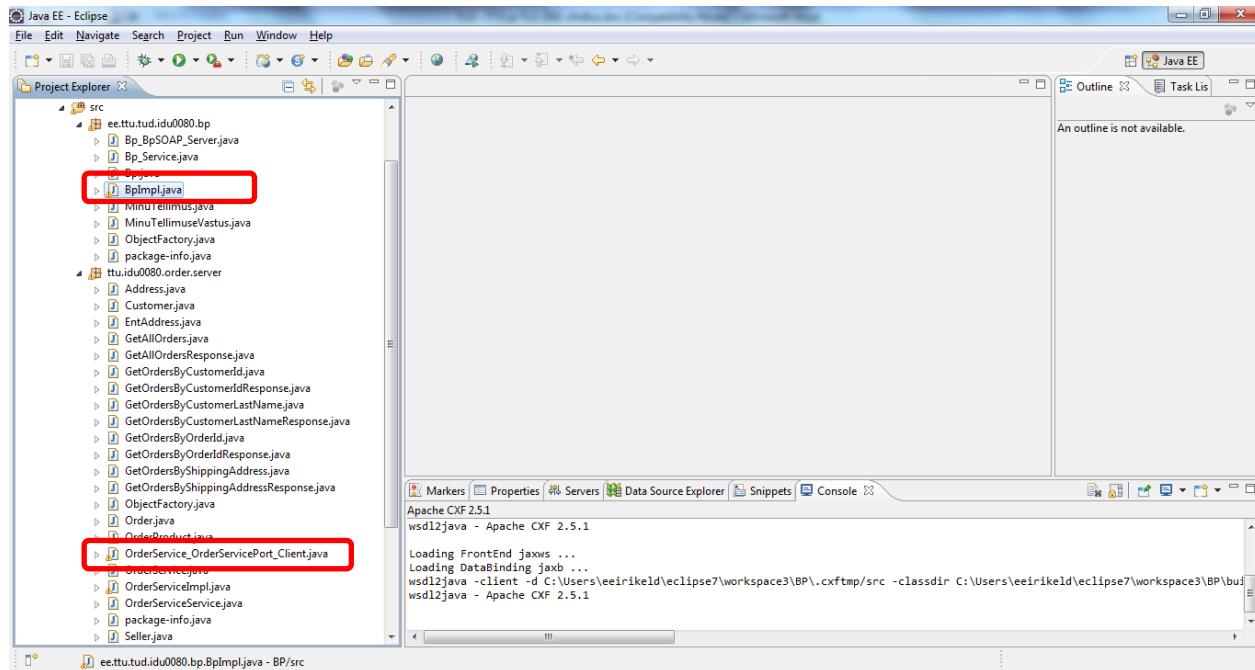


Vajuta Next ja veenduu, et kõik vajalikud asjad on paigas:



Vajuta Next jne klient on valmis.

Vasakul pool peaks tekkima umbes selline pilt. Meie vajame eeskätt BpImpl.java (meie tehtud veebiteenus, mis tegeleb tellimuse töötlemisega) ja OrderService_OrderServicePort_Client.java (klient, mis oskab küsida tellimuste andmed tund.ttu.ee serverilt)



Nüüd ilus oleks vajalikud klassid välja kutsuda, kuid võib ka vajalikud read lihtsalt üle kopeerida. Selleks navigeerime ja OrderService_OrderServicePort_Client.java peale, teeme lahti ja otsime vajalikud tead üles. Meie vajame **getOrderById** teenust:

Java EE - BP/src/ttu/ida0080/order/server/OrderService_OrderServicePort_Client.java - Eclipse

```

File Edit Source Refactor Navigate Search Project Run Window Help
Project Explorer OrderService_OrderServicePort_Client.java
ttu.idu0080.order.server
  Address.java
  Customer.java
  EntAddress.java
  GetAllOrders.java
  GetAllOrdersResponse.java
  GetOrdersByCustomerId.java
  GetOrdersByCustomerIdResponse.java
  GetOrdersByCustomerLastName.java
  GetOrdersByCustomerLastNameResponse.java
  GetOrdersByOrderId.java
  GetOrdersByOrderIdResponse.java
  GetOrdersByShippingAddress.java
  GetOrdersByShippingAddressResponse.java
  ObjectFactory.java
  Order.java
  OrderProduct.java
  OrderService_OrderServicePort_Client.java
  OrderService.java
  OrderServiceImpl.java
  OrderServiceService.java
  package-info.java
  Seller.java
Libraries
  Java Script Resources
  build
  WebContent
    META-INF
    WEB-INF
    bp.wsdl
  BPTeenused

```

```

public static void main(String args[]) throws java.lang.Exception {
    URL wsdlURL = OrderServiceService.WSDL_LOCATION;
    if (args.length > 0 && args[0] != null && !"".equals(args[0])) {
        File wsdlFile = new File(args[0]);
        try {
            if (wsdlFile.exists()) {
                wsdlURL = wsdlFile.toURI().toURL();
            } else {
                wsdlURL = new URL(args[0]);
            }
        } catch (MalformedURLException e) {
            e.printStackTrace();
        }
    }
    OrderServiceService ss = new OrderServiceService(wsdlURL, SERVICE_NAME);
    OrderService port = ss.getOrderServicePort();

    {
        System.out.println("Invoking getOrdersByOrderId...");
        int _getOrdersByOrderId_orderId = -1079237325;
        ttu.idu0080.order.server.Order _getOrdersByOrderId_return = port.getOrdersByOrderId(_getOrdersByOrderId_orderId);
        System.out.println("getOrdersByOrderId.result=" + _getOrdersByOrderId_return);
    }

    {
        System.out.println("Invoking getAllOrders...");
        java.util.List<ttu.idu0080.order.server.Order> _getAllOrders__return = port.getAllOrders();
        System.out.println("getAllOrders.result=" + _getAllOrders__return);
    }

    System.out.println("Invoking getOrdersByCustomerId...");
}

```

Valime meile sobivat koodi välja ja navigeerimine BpImpl.java peale, teeme lahti ja otsime sobivat kohta, kuhu võik välja valitud read kopeerida:

Java EE - BP/src/ee/ttu/ida0080/bp/BpImpl.java - Eclipse

```

File Edit Source Refactor Navigate Search Project Run Window Help
Project Explorer OrderService_OrderServicePort_Client.java BpImpl.java
BP
  JAX-WS Web Services
  Deployment Descriptor: BP
  Java Resources
    src
      ee.ttu.tud.idu0080.bp
        Bp_BpSOAP_Server.java
        Bp_Service.java
        Bp.java
        BpImpl.java
        MinuTellimus.java
        MinuTellimusVastus.java
        MinuTellimusVastus.java
        ObjectFactory.java
        package-info.java
    ttu.idu0080.order.server
      Address.java
      Customer.java
      EntAddress.java
      GetAllOrders.java
      GetAllOrdersResponse.java
      GetOrdersByCustomerId.java
      GetOrdersByCustomerIdResponse.java
      GetOrdersByCustomerLastName.java
      GetOrdersByCustomerLastNameResponse.java
      GetOrdersByOrderId.java
      GetOrdersByOrderIdResponse.java
      GetOrdersByShippingAddress.java
      GetOrdersByShippingAddressResponse.java
      ObjectFactory.java
      Order.java
      OrderProduct.java
      OrderService_OrderServicePort_Client.java

```

```

/*
 * This class was generated by Apache CXF 2.5.1
 * 2013-04-11T17:07:36.679+03:00
 * Generated source version: 2.5.1
 */

@javax.jws.WebService(
    serviceName = "bp",
    portName = "bpSOAP",
    targetNamespace = "http://ida0080.tud.ttu.ee/bp/",
    wsdlLocation = "http://localhost:8085/BpService?wsdl",
    endpointInterface = "ee.ttu.tud.idu0080.bp.Bp")
public class BpImpl implements Bp {

    private static final Logger LOG = Logger.getLogger(BpImpl.class.getName());

    /* (non-Javadoc)
     * @see ee.ttu.tud.idu0080.bp.Bp#tellimuseEsitamine(ee.ttu.tud.idu0080.bp.MinuTellimus parameters )*/
    public ee.ttu.tud.idu0080.bp.MinuTellimuseVastus tellimuseEsitamine(MinuTellimus parameters) {
        LOG.info("Executing operation tellimuseEsitamine");
        System.out.println(parameters);
        try {
            ee.ttu.tud.idu0080.bp.MinuTellimuseVastus _return = new ee.ttu.tud.idu0080.bp.MinuTellimuseVastus();
            _return.setTeade("Teade730998332");
            return _return;
        } catch (java.lang.Exception ex) {
            ex.printStackTrace();
            throw new RuntimeException(ex);
        }
    }
}

```

Java EE - BP/src/ee/ttu/udu0080/bp/BpImpl.java - Eclipse

```

public class BpImpl implements Bp {
    private static final Logger LOG = Logger.getLogger(BpImpl.class.getName());

    /* (non-Javadoc)
     * @see ee.ttu.tud.udu0080.bp.Bp#tellimuseEsitamine(ee.ttu.tud.udu0080.bp.MinuTellimus parameters )
     */
    public ee.ttu.tud.udu0080.bp.MinuTellimuseVastus tellimuseEsitamine(MinuTellimus parameters) {
        LOG.info("Executing operation tellimuseEsitamine");
        System.out.println(parameters);
        try {
            OrderServiceService ss = new OrderServiceService(wsdlURL, SERVICE_NAME);
            OrderService port = ss.getOrderServicePort();

            {
                System.out.println("Invoking getOrdersByOrderId...");
                int _getOrdersByOrderId_orderId = -1079237325;
                ttu.udu0080.order.server.Order _getOrdersByOrderId__return = port.getOrdersByOrderId(_getOrdersByOrderId_orderId);
                System.out.println("getOrdersByOrderId.result=" + _getOrdersByOrderId__return);

                ee.ttu.tud.udu0080.bp.MinuTellimuseVastus _return = new ee.ttu.tud.udu0080.bp.MinuTellimuseVastus();
                _return.setTeade("Teade730998332");
                return _return;
            } catch (java.lang.Exception ex) {
                ...
            }
        }
    }
}

```

wsdlURL cannot be resolved to a variable

Kustutame ebavajalikud sulud ära:

Java EE - BP/src/ee/ttu/udu0080/bp/BpImpl.java - Eclipse

```

public class BpImpl implements Bp {
    private static final Logger LOG = Logger.getLogger(BpImpl.class.getName());

    /* (non-Javadoc)
     * @see ee.ttu.tud.udu0080.bp.Bp#tellimuseEsitamine(ee.ttu.tud.udu0080.bp.MinuTellimus parameters )
     */
    public ee.ttu.tud.udu0080.bp.MinuTellimuseVastus tellimuseEsitamine(MinuTellimus parameters) {
        LOG.info("Executing operation tellimuseEsitamine");
        System.out.println(parameters);
        try {
            OrderServiceService ss = new OrderServiceService(wsdlURL, SERVICE_NAME);
            OrderService port = ss.getOrderServicePort();

            System.out.println("Invoking getOrdersByOrderId...");
            int _getOrdersByOrderId_orderId = -1079237325;
            ttu.udu0080.order.server.Order _getOrdersByOrderId__return = port.getOrdersByOrderId(_getOrdersByOrderId_orderId);
            System.out.println("getOrdersByOrderId.result=" + _getOrdersByOrderId__return);

            ee.ttu.tud.udu0080.bp.MinuTellimuseVastus _return = new ee.ttu.tud.udu0080.bp.MinuTellimuseVastus();
            _return.setTeade("Teade730998332");
            return _return;
        } catch (java.lang.Exception ex) {
            ex.printStackTrace();
            throw new RuntimeException(ex);
        }
    }
}

```

Asendame muutujad wsdlURL ja SERVICE_NAME õigete parameetritega:

Java EE - BP/src/ee/ttu/uid/0080/bp/BpImpl.java - Eclipse

```

Project Explorer OrderService_OrderServicePort_Client.java BpImpl.java
JAX-WS Web Services Deployment Descriptor: BP Java Resources
src
  ee.ttu.tud.uid/0080.bp
    Bp_BpSOAP_Server.java
    Bp_Service.java
    Bp.java
    BpImpl.java
    MinuTellimus.java
    MinuTellimusVastus.java
    ObjectFactory.java
    package-info.java
ttu.uid/0080.order.server
  Address.java
  Customer.java
  EntAddress.java
  GetAllOrders.java
  GetAllOrdersResponse.java
  GetOrdersByCustomerId.java
  GetOrdersByCustomerIdResponse.java
  GetOrdersByCustomerLastName.java
  GetOrdersByCustomerLastNameResponse.java
  GetOrdersByOrderId.java
  GetOrdersByOrderIdResponse.java
  GetOrdersByShippingAddress.java
  GetOrdersByShippingAddressResponse.java
  ObjectFactory.java
  Order.java
  OrderProduct.java
  OrderService.java
  OrderService_OrderServicePort_Client.java

OrderService_OrderServicePort_Client.java
  javax.jws.WebService(
    serviceName = "bp",
    portName = "bpSOAP",
    targetNamespace = "http://uid/0080.tud.ttu.ee/bp/",
    wsdlLocation = "http://localhost:8085/bpService?wsdl",
    endpointInterface = "ee.ttu.tud.uid/0080.bp.Bp")
  public class BpImpl implements Bp {
    private static final Logger LOG = Logger.getLogger(BpImpl.class.getName());
    /* (non-Javadoc)
     * @see ee.ttu.tud.uid/0080.bp.Bp#tellimuseEsitamine(ee.ttu.tud.uid/0080.bp.MinuTellimus parameters)
     */
    public ee.ttu.tud.uid/0080.bp.MinuTellimusVastus tellimuseEsitamine(MinuTellimus parameters) {
      LOG.info("Executing operation tellimuseEsitamine");
      System.out.println(parameters);
      try {
        OrderServiceService ss = new OrderServiceService(wsdlURL, SERVICE_NAME);
        OrderService port = ss.getOrderServicePort();
        System.out.println("Invoking getOrdersByOrderId...");
        int _getOrdersByOrderId_orderId = -1079237325;
        ttu.uid/0080.order.server.Order _getOrdersByOrderId__return = port.getOrdersByOrderId(_getOrdersByOrderId_orderId);
        System.out.println("getOrdersByOrderId.result=" + _getOrdersByOrderId__return);

        ee.ttu.tud.uid/0080.bp.MinuTellimusVastus _return = new ee.ttu.tud.uid/0080.bp.MinuTellimusVastus();
        _return.setTeade("Teade730998332");
        return _return;
      } catch (java.lang.Exception ex) {
        ex.printStackTrace();
        throw new RuntimeException(ex);
      }
    }
  }
}

Markers Properties Servers Data Source Explorer Snippets Console
wsdlURL cannot be resolved to a variable Writable Smart Insert 46: 83
Anache CVE 2.5.1

```

wsdlURL peab viitama <http://tund.ttu.ee/orderservice/orders?wsdl> teenusele

Java EE - BP/src/ee/ttu/uid/0080/bp/BpImpl.java - Eclipse

```

Project Explorer OrderService_OrderServicePort_Client.java BpImpl.java OrderService.java
JAX-WS Web Services Deployment Descriptor: BP Java Resources
src
  Bp_Service.java
  Bp.java
  BpImpl.java
  MinuTellimus.java
  MinuTellimusVastus.java
  ObjectFactory.java
  package-info.java
ttu.uid/0080.order.server
  Address.java
  Customer.java
  EntAddress.java
  GetAllOrders.java
  GetAllOrdersResponse.java
  GetOrdersByCustomerId.java
  GetOrdersByCustomerIdResponse.java
  GetOrdersByCustomerLastName.java
  GetOrdersByCustomerLastNameResponse.java
  GetOrdersByOrderId.java
  GetOrdersByOrderIdResponse.java
  GetOrdersByShippingAddress.java
  GetOrdersByShippingAddressResponse.java
  ObjectFactory.java
  Order.java
  OrderProduct.java
  OrderService.java
  OrderServiceImpl.java
  OrderService.java
  package-info.java
  Seller.java

OrderService.java
  javax.jws.WebService(
    serviceName = "bp",
    portName = "bpSOAP",
    targetNamespace = "http://uid/0080.tud.ttu.ee/bp/",
    wsdlLocation = "http://localhost:8085/bpService?wsdl",
    endpointInterface = "ee.ttu.tud.uid/0080.bp.Bp")
  public class BpImpl implements Bp {
    private static final Logger LOG = Logger.getLogger(BpImpl.class.getName());
    /* (non-Javadoc)
     * @see ee.ttu.tud.uid/0080.bp.Bp#tellimuseEsitamine(ee.ttu.tud.uid/0080.bp.MinuTellimus parameters)
     */
    public ee.ttu.tud.uid/0080.bp.MinuTellimusVastus tellimuseEsitamine(MinuTellimus parameters) {
      LOG.info("Executing operation tellimuseEsitamine");
      System.out.println(parameters);
      try {
        OrderServiceService ss = new OrderServiceService(
          new URL("http://tund.ttu.ee:80/orderservice/orders?wsdl"),
          SERVICE_NAME);
        OrderService port = ss.getOrderServicePort();
        System.out.println("Invoking getOrdersByOrderId...");
        int _getOrdersByOrderId_orderId = -1079237325;
        ttu.uid/0080.order.server.Order _getOrdersByOrderId__return = port.getOrdersByOrderId(_getOrdersByOrderId_orderId);
        System.out.println("getOrdersByOrderId.result=" + _getOrdersByOrderId__return);

        ee.ttu.tud.uid/0080.bp.MinuTellimusVastus _return = new ee.ttu.tud.uid/0080.bp.MinuTellimusVastus();
        _return.setTeade("Teade730998332");
        return _return;
      } catch (java.lang.Exception ex) {
    }
  }
}

Markers Properties Servers Data Source Explorer Snippets Console
Anache CVE 2.5.1

```

Ja SERVICE_NAME... selle nime spikerdame OrderService_OrderServicePort_Client.java klassist:

Java EE - BP/src/ttu/ida0080/order/server/OrderService_OrderServicePort_Client.java - Eclipse

```

private static final QName SERVICE_NAME = new QName("http://server.order.idu0080.ttu/", "OrderServiceService");

```

Ehk siis kopeerime SERVICE_NAME väärustuse BpImpl.java klassi:

Java EE - BP/src/ee/ttu/ida0080/bp/BpImpl.java - Eclipse

```

private static final QName SERVICE_NAME = new QName("http://server.order.idu0080.ttu/", "OrderServiceService");

```

Nüüd peame kuidagi aru saama, millise tellimuse_ID'ga meil tegemist on. Tellimuse_ID sisalduv muutujas parameters:

```

public class BpImpl implements Bp {
    private static final Logger LOG = Logger.getLogger(BpImpl.class.getName());
    /* (non-Javadoc)
     * @see ee.ttu.tud.idu0080.bp.Bp#tellimuseEsitamine(ee.ttu.tud.idu0080.bp.MinuTellimus parameters )
     */
    public ee.ttu.tud.idu0080.bp.MinuTellimuseVastus tellimuseEsitamine(MinuTellimus parameters) {
        System.out.println(parameters);
        try {
            OrderServiceService ss = new OrderServiceService(
                new URL("http://tund.ttu.ee:80/orderservice/orders?wsdl"),
                new QName("http://server.order.idu0080.ttu/", "OrderServiceService"));
            OrderService port = ss.getOrderServicePort();
            System.out.println("Invoking getOrdersByOrderId...");
            int _getOrdersByOrderId_orderId = -1079237325;
            ttu.idu0080.order.server.Order _getOrdersByOrderId__return = port.getOrdersByOrderId(_getOrdersByOrderId_orderId);
            System.out.println("getOrdersByOrderId.result=" + _getOrdersByOrderId__return);
        } catch (java.lang.Exception ex) {
            ex.printStackTrace();
            throw new RuntimeException(ex);
        }
        ee.ttu.tud.idu0080.bp.MinuTellimuseVastus _return = new ee.ttu.tud.idu0080.bp.MinuTellimuseVastus();
        _return.setTeade("Teade730998332");
        return _return;
    }
}

```

Deklareerin uue muuttuja ja omistan talle teenuses küsitus tellimus_ID:

```

public class BpImpl implements Bp {
    private static final Logger LOG = Logger.getLogger(BpImpl.class.getName());
    /* (non-Javadoc)
     * @see ee.ttu.tud.idu0080.bp.Bp#tellimuseEsitamine(ee.ttu.tud.idu0080.bp.MinuTellimus parameters )
     */
    public ee.ttu.tud.idu0080.bp.MinuTellimuseVastus tellimuseEsitamine(MinuTellimus parameters) {
        LOG.info("Executing operation tellimuseEsitamine");
        System.out.println(parameters);
        int tellimus_id=parameters.getId().intValue();
        System.out.println("Minu tellimus id: "+tellimus_id);
        try {
            OrderServiceService ss = new OrderServiceService(
                new URL("http://tund.ttu.ee:80/orderservice/orders?wsdl"),
                new QName("http://server.order.idu0080.ttu/", "OrderServiceService"));
            OrderService port = ss.getOrderServicePort();
            System.out.println("Invoking getOrdersByOrderId...");
            int _getOrdersByOrderId_orderId = -1079237325;
            ttu.idu0080.order.server.Order _getOrdersByOrderId__return = port.getOrdersByOrderId(_getOrdersByOrderId_orderId);
            System.out.println("getOrdersByOrderId.result=" + _getOrdersByOrderId__return);
        } catch (java.lang.Exception ex) {
            ex.printStackTrace();
            throw new RuntimeException(ex);
        }
        ee.ttu.tud.idu0080.bp.MinuTellimuseVastus _return = new ee.ttu.tud.idu0080.bp.MinuTellimuseVastus();
        _return.setTeade("Teade730998332");
    }
}

```

Nüüd muudan pisut koodi nii, et saaksin sellest aru. Kuna tellimus_ID on meil juba loetud, siis kasutan seda, mitte aga süsteemi poolt genereeritud _getOrder....

Java EE - BP/src/ee/ttu/ida0080/bp/BpImpl.java - Eclipse

```
targetNamespace = "http://ida0080.tud.ttu.ee/bp/";
wsdlLocation = "http://localhost:8085/BpService?wsdl";
endpointInterface = "ee.ttu.tud.idu0080.bp.Bp";

public class BpImpl implements Bp {
    private static final Logger LOG = Logger.getLogger(BpImpl.class.getName());

    /* (non-Javadoc)
     * @see ee.ttu.tud.idu0080.bp#tellimusEsitamine(ee.ttu.tud.idu0080.bp.MinuTellimus parameters )
     */
    public ee.ttu.tud.idu0080.bp.MinuTellimuseVastus tellimusEsitamine(MinuTellimus parameters) {
        LOG.info("Executing operation tellimusEsitamine");
        System.out.println(parameters);

        int tellimus_id=parameters.getId().intValue();

        System.out.println("Minu tellimus id: "+tellimus_id);

        try {
            OrderServiceService ss = new OrderServiceService(
                new URL("http://tund.ttu.ee:80/orderservice/orders?wsdl"),
                new QName("http://server.order.idu0080.ttu/", "OrderServiceService"));
            OrderService port = ss.getOrderServicePort();

            System.out.println("Invoking getOrdersByOrderId...");
            int _getOrdersByOrderId_orderId = -1079237325;
            ttu.idu0080.order.server.Order _getOrdersByOrderId__return = port.getOrdersByOrderId(_getOrdersByOrderId_orderId);
            System.out.println("getOrdersByOrderId.result=" + _getOrdersByOrderId__return);

            ee.ttu.tud.idu0080.bp.MinuTellimuseVastus _return = new ee.ttu.tud.idu0080.bp.MinuTellimuseVastus();
            _return.setTeade("Teade730998332");
        }
    }
}
```

Java EE - BP/src/ee/ttu/ida0080/bp/BpImpl.java - Eclipse

```
targetNamespace = "http://ida0080.tud.ttu.ee/bp/";
wsdlLocation = "http://localhost:8085/BpService?wsdl";
endpointInterface = "ee.ttu.tud.idu0080.bp.Bp";

public class BpImpl implements Bp {
    private static final Logger LOG = Logger.getLogger(BpImpl.class.getName());

    /* (non-Javadoc)
     * @see ee.ttu.tud.idu0080.bp#tellimusEsitamine(ee.ttu.tud.idu0080.bp.MinuTellimus parameters )
     */
    public ee.ttu.tud.idu0080.bp.MinuTellimuseVastus tellimusEsitamine(MinuTellimus parameters) {
        LOG.info("Executing operation tellimusEsitamine");
        System.out.println(parameters);

        int tellimus_id=parameters.getId().intValue();

        System.out.println("Minu tellimus id: "+tellimus_id);

        try {
            OrderServiceService ss = new OrderServiceService(
                new URL("http://tund.ttu.ee:80/orderservice/orders?wsdl"),
                new QName("http://server.order.idu0080.ttu/", "OrderServiceService"));
            OrderService port = ss.getOrderServicePort();

            System.out.println("Invoking getOrdersByOrderId...");
            //int _getOrdersByOrderId_orderId = -1079237325;
            ttu.idu0080.order.server.Order _getOrdersByOrderId__return = port.getOrdersByOrderId(_getOrdersByOrderId_orderId);
            System.out.println("getOrdersByOrderId.result=" + _getOrdersByOrderId__return);

            ee.ttu.tud.idu0080.bp.MinuTellimuseVastus _return = new ee.ttu.tud.idu0080.bp.MinuTellimuseVastus();
            _return.setTeade("Teade730998332");
        }
    }
}
```

Java EE - BP/src/ee/ttu/ida0080/bp/BpImpl.java - Eclipse

```
targetNamespace = "http://ida0080.tud.ttu.ee/bp/";
wsdlLocation = "http://localhost:8085/bpService?wsdl";
endpointInterface = "ee.ttu.tud.idu0080.bp.Bp";

public class BpImpl implements Bp {
    private static final Logger LOG = Logger.getLogger(BpImpl.class.getName());

    /* (non-Javadoc)
     * @see ee.ttu.tud.idu0080.bp.Bp#tellimusEsitamine(ee.ttu.tud.idu0080.bp.MinuTellimus parameters )
     */
    public ee.ttu.tud.idu0080.bp.MinuTellimusVastus tellimusEsitamine(MinuTellimus parameters) {
        LOG.info("Executing operation tellimusEsitamine");
        System.out.println(parameters);

        int tellimus_id=parameters.getId().intValue();

        System.out.println("Minu tellimus id: "+tellimus_id);

        try {
            OrderServiceService ss = new OrderServiceService(
                new URL("http://tund.ttu.ee:80/ordservice/orders?wsdl"),
                new QName("http://server.order.idu0080.ttu/", "OrderServiceService"));
            OrderService port = ss.getOrderServicePort();

            System.out.println("Invoking getOrdersByOrderId...");
            //int _getOrdersByOrderId_orderId = -1079237325;
            ttu.idu0080.order.server.Order _getOrdersByOrderId__return = port.getOrdersByOrderId(tellimus_id);
            System.out.println("getOrdersByOrderId.result=" + _getOrdersByOrderId__return);

            ee.ttu.tud.idu0080.bp.MinuTellimusVastus _return = new ee.ttu.tud.idu0080.bp.MinuTellimusVastus();
            _return.setTeade("Teade730998332");
        }
    }
}
```

Java EE - BP/src/ee/ttu/ida0080/bp/BpImpl.java - Eclipse

```
targetNamespace = "http://ida0080.tud.ttu.ee/bp/";
wsdlLocation = "http://localhost:8085/bpService?wsdl";
endpointInterface = "ee.ttu.tud.idu0080.bp.Bp";

public class BpImpl implements Bp {
    private static final Logger LOG = Logger.getLogger(BpImpl.class.getName());

    /* (non-Javadoc)
     * @see ee.ttu.tud.idu0080.bp.Bp#tellimusEsitamine(ee.ttu.tud.idu0080.bp.MinuTellimus parameters )
     */
    public ee.ttu.tud.idu0080.bp.MinuTellimusVastus tellimusEsitamine(MinuTellimus parameters) {
        LOG.info("Executing operation tellimusEsitamine");
        System.out.println(parameters);

        int tellimus_id=parameters.getId().intValue();

        System.out.println("Minu tellimus id: "+tellimus_id);

        try {
            OrderServiceService ss = new OrderServiceService(
                new URL("http://tund.ttu.ee:80/ordservice/orders?wsdl"),
                new QName("http://server.order.idu0080.ttu/", "OrderServiceService"));
            OrderService port = ss.getOrderServicePort();

            //int _getOrdersByOrderId_orderId = -1079237325;
            ttu.idu0080.order.server.Order _getOrdersByOrderId__return = port.getOrdersByOrderId(tellimus_id);
            System.out.println("getOrdersByOrderId.result=" + _getOrdersByOrderId__return);

            ee.ttu.tud.idu0080.bp.MinuTellimusVastus _return = new ee.ttu.tud.idu0080.bp.MinuTellimusVastus();
            _return.setTeade("Teade730998332");
        }
    }
}
```

Java EE - BP/src/ee/ttu/ida0080/bp/BpImpl.java - Eclipse

```
targetNamespace = "http://ida0080.tud.ttu.ee/bp/";
wsdlLocation = "http://localhost:8085/bpService?wsdl";
endpointInterface = "ee.ttu.tud.idu0080.bp.Bp";

public class BpImpl implements Bp {
    private static final Logger LOG = Logger.getLogger(BpImpl.class.getName());

    /* (non-Javadoc)
     * @see ee.ttu.tud.idu0080.bp#tellimusEsitamine(ee.ttu.tud.idu0080.bp.MinuTellimus parameters )
     */
    public ee.ttu.tud.idu0080.bp.MinuTellimuseVastus tellimuseEsitamine(MinuTellimus parameters) {
        LOG.info("Executing operation tellimuseEsitamine");
        System.out.println(parameters);

        int tellimus_id=parameters.getId().intValue();

        System.out.println("Minu tellimus id: "+tellimus_id);

        try {
            OrderServiceService ss = new OrderServiceService(
                new URL("http://tund.ttu.ee:80/ordservice/orders?wsdl"),
                new QName("http://server.order.idu0080.ttu/", "OrderServiceService"));
            OrderService port = ss.getOrderServicePort();

            System.out.println("Invoking getOrdersByOrderId...");
            //int _getOrdersByOrderId_orderId = -1079237325;
            ttu.idu0080.order.server.Order tellimus = port.getOrdersByOrderId(tellimus_id);
            System.out.println("saabunud tellimus=" + tellimus);

            ee.ttu.tud.idu0080.bp.MinuTellimuseVastus _return = new ee.ttu.tud.idu0080.bp.MinuTellimuseVastus();
            _return.setTeade("Teade730998332");
        }
    }
}
```

Ja _return asendan samuti mõne mõistlikuma nimega:

Java EE - BP/src/ee/ttu/ida0080/bp/BpImpl.java - Eclipse

```
targetNamespace = "http://ida0080.tud.ttu.ee/bp/";
wsdlLocation = "http://localhost:8085/bpService?wsdl";
endpointInterface = "ee.ttu.tud.idu0080.bp.Bp";

public ee.ttu.tud.idu0080.bp.MinuTellimuseVastus tellimuseEsitamine(MinuTellimus parameters) {
    LOG.info("Executing operation tellimuseEsitamine");
    System.out.println(parameters);

    int tellimus_id=parameters.getId().intValue();

    System.out.println("Minu tellimus id: "+tellimus_id);

    try {
        OrderServiceService ss = new OrderServiceService(
            new URL("http://tund.ttu.ee:80/ordservice/orders?wsdl"),
            new QName("http://server.order.idu0080.ttu/", "OrderServiceService"));
        OrderService port = ss.getOrderServicePort();

        System.out.println("Invoking getOrdersByOrderId...");
        //int _getOrdersByOrderId_orderId = -1079237325;
        ttu.idu0080.order.server.Order tellimus = port.getOrdersByOrderId(tellimus_id);
        System.out.println("saabunud tellimus=" + tellimus);

        ee.ttu.tud.idu0080.bp.MinuTellimuseVastus _return = new ee.ttu.tud.idu0080.bp.MinuTellimuseVastus();
        _return.setTeade("Teade730998332");
    }
}
```

Java EE - BP/src/ee/ttu/uid/0080/bp/BpImpl.java - Eclipse

```
* @see ee.ttu.tud.uid0080.bp.Bp#tellimusEesitamine(ee.ttu.tud.uid0080.bp.MinuTellimus parameters )*
public ee.ttu.tud.uid0080.bp.MinuTellimusVastus tellimusEesitamine(MinuTellimus parameters) {
    LOG.info("Executing operation tellimusEesitamine");
    System.out.println(parameters);

    int tellimus_id=parameters.getId().intValue();

    System.out.println("Minu tellimus id: "+tellimus_id);

    try {

        OrderServiceService ss = new OrderServiceService(
            new URL("http://tund.ttu.ee:80/orderservice/orders?wsdl"),
            new QName("http://server.order.uid0080.ttu/", "OrderServiceService"));
        OrderService port = ss.getOrderServicePort();

        System.out.println("Invoking getOrdersByOrderId...");
        //int _getOrdersByOrderId_orderId = -1079237325;
        ttu.uid0080.order.server.Order tellimus = port.getOrdersByOrderId(tellimus_id);
        System.out.println("saabunud tellimus=" + tellimus);

        ee.ttu.tud.uid0080.bp.MinuTellimusVastus loppvastus = new ee.ttu.tud.uid0080.bp.MinuTellimusVastus();
        loppvastus.setTeade("Teade7309998332");
        return loppvastus;
    } catch (java.lang.Exception ex) {
        ex.printStackTrace();
        throw new RuntimeException(ex);
    }
}
```

Java EE - BP/src/ee/ttu/uid/0080/bp/BpImpl.java - Eclipse

```
* @see ee.ttu.tud.uid0080.bp.Bp#tellimusEesitamine(ee.ttu.tud.uid0080.bp.MinuTellimus parameters )*
public ee.ttu.tud.uid0080.bp.MinuTellimusVastus tellimusEesitamine(MinuTellimus parameters) {
    LOG.info("Executing operation tellimusEesitamine");
    System.out.println(parameters);

    int tellimus_id=parameters.getId().intValue();

    System.out.println("Minu tellimus id: "+tellimus_id);

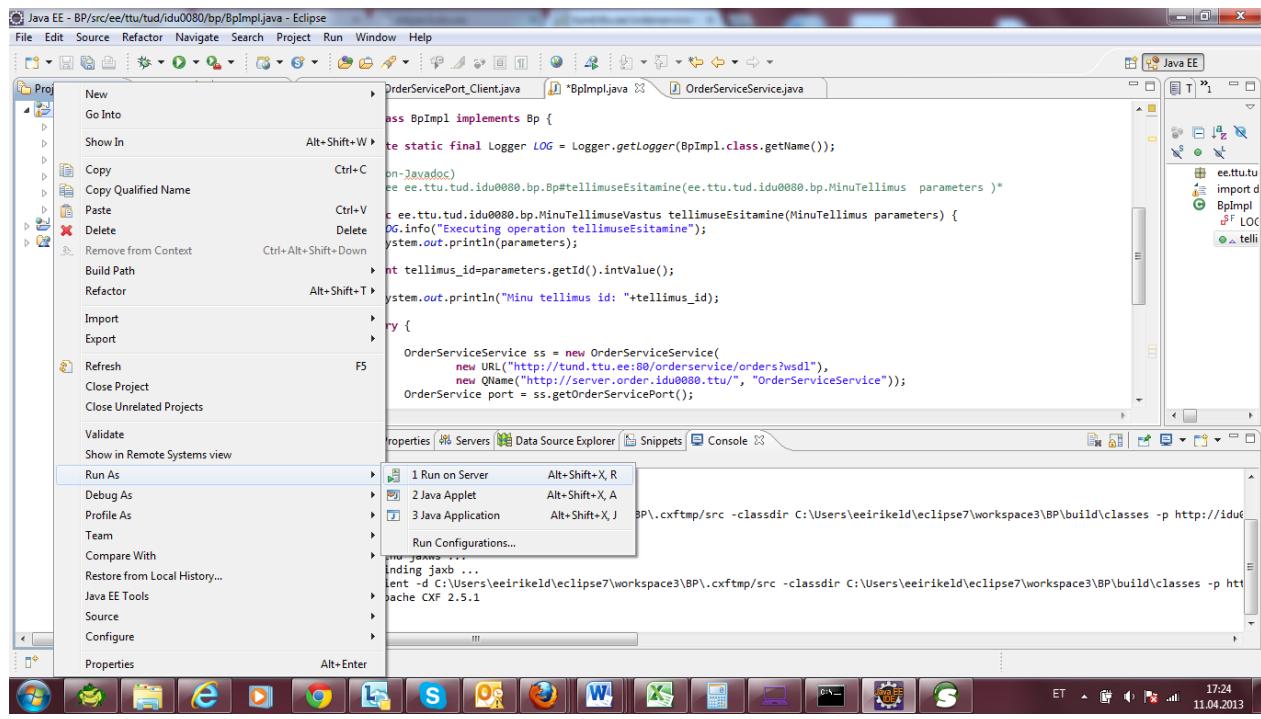
    try {

        OrderServiceService ss = new OrderServiceService(
            new URL("http://tund.ttu.ee:80/orderservice/orders?wsdl"),
            new QName("http://server.order.uid0080.ttu/", "OrderServiceService"));
        OrderService port = ss.getOrderServicePort();

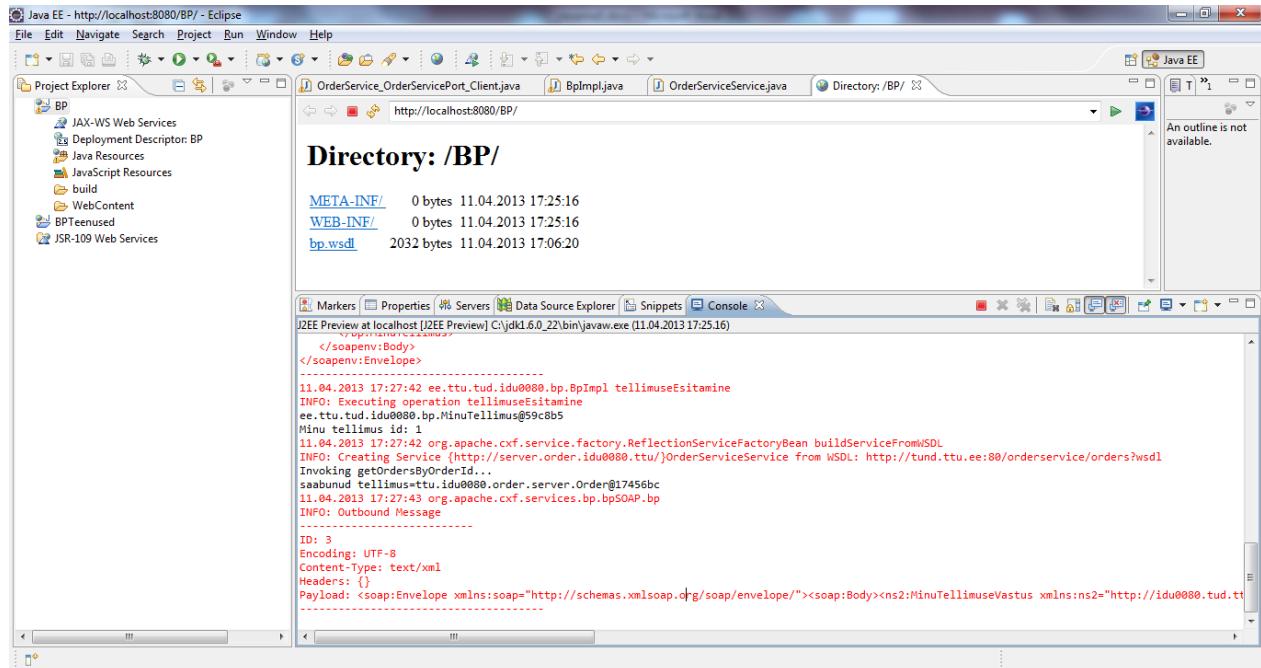
        System.out.println("Invoking getOrdersByOrderId...");
        //int _getOrdersByOrderId_orderId = -1079237325;
        ttu.uid0080.order.server.Order tellimus = port.getOrdersByOrderId(tellimus_id);
        System.out.println("saabunud tellimus=" + tellimus);

        ee.ttu.tud.uid0080.bp.MinuTellimusVastus loppvastus = new ee.ttu.tud.uid0080.bp.MinuTellimusVastus();
        loppvastus.setTeade("Härsaa, kõik töötab!");
        return loppvastus;
    } catch (java.lang.Exception ex) {
        ex.printStackTrace();
        throw new RuntimeException(ex);
    }
}
```

Nii, valmis. Salvestan ära ja panen käima (Run->Run on Server)



Peaks tulema umbes selline pilt



Kirjutan url'i lõppu /services:



Available RESTful services:

Kui vajutan sinise lingi peale, siis näen wsdl

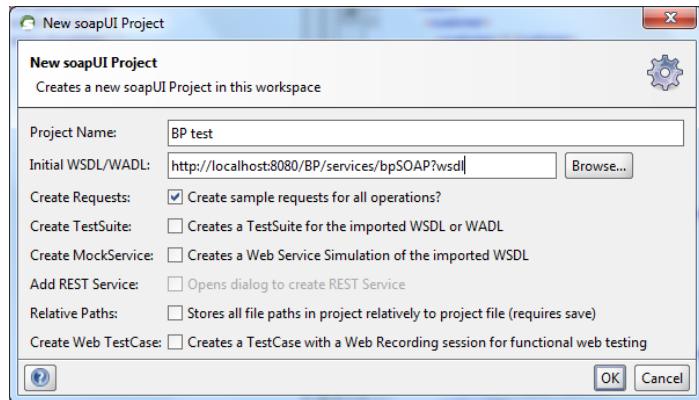
This XML file does not appear to have any style information associated with it. The document tree is shown below.

```

<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wSDL/soap/" xmlns:tns="http://idu0080.tud.ttu.ee/bp/" xmlns:wSDL="http://schemas.xmlsoap.org/wSDL/">
  xmlns:xsd="http://www.w3.org/2001/XMLSchema" name="bp" targetNamespace="http://idu0080.tud.ttu.ee/bp/">
    <wsdl:types>
      <xsd:schema xmlns:soap="http://schemas.xmlsoap.org/wSDL/soap/" xmlns:tns="http://idu0080.tud.ttu.ee/bp/" xmlns:wSDL="http://schemas.xmlsoap.org/wSDL/">
        <xsd:element name="MinuTellimus">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element name="id" type="xsd:integer"/>
            </xsd:sequence>
          </xsd:complexType>
        </xsd:element>
      <xsd:element name="MinuTellimuseVastus">
        <xsd:complexType>
          <xsd:sequence>
            <xsd:element name="teade" type="xsd:string"/>
          </xsd:sequence>
        </xsd:complexType>
      </xsd:element>
    </xsd:schema>
  </wsdl:types>
  <wsdl:message name="TellimuseVastus">
    <wsdl:part element="tns:MinuTellimuseVastus" name="parameters"/>
  </wsdl:message>
  <wsdl:message name="Tellimus">
    <wsdl:part element="tns:MinuTellimus" name="parameters"/>
  </wsdl:message>
  <wsdl:portType name="bp">
    <wsdl:operation name="TellimuseEsitamine">
      <wsdl:input message="tns:Tellimus"/>
      <wsdl:output message="tns:TellimuseVastus"/>
    </wsdl:operation>
  </wsdl:portType>
  <wsdl:binding name="bpSOAP" type="tns:bp">
    <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="TellimuseEsitamine">
      <soap:operation soapAction="http://idu0080.tud.ttu.ee/bp/TellimuseEsitamine"/>
      <wsdl:input>
        <soap:header message="bp:MinuTellimus" />
      </wsdl:input>
    </wsdl:operation>
  </wsdl:binding>
</wsdl:definitions>

```

Kopeerin wsdl'i URL'i ja teen uue soapUI projekti veendumaks, et asjad töötavad:



soapUI 4.5.1

File Tools Desktop Help

Projects

- BP test
 - bpSOAP
 - TellimuseEsitamine
 - Request1
- Orders
 - OrderServicePortBinding
 - getAllOrders
 - Request1
 - getOrdersByCustomerId
 - getOrdersByCustomerLastName
 - getOrdersByOrderId
 - getOrdersByShippingAddress
- Töüs
 - sais
 - tüuaine
 - töis2
 - töis3
 - töis3
 - yhiskavad

Request Properties

| Property | Value |
|--------------|----------|
| Name | Request1 |
| Description | |
| Message Size | 271 |

Properties

Request 1

Raw XML

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Header>
  <soapenv:Body>
    <bp:MinuTellimus>
      <id?/:id>
    </bp:MinuTellimus>
  </soapenv:Body>
</soapenv:Envelope>

```

Headers (0) Attachments (0) SSL Info WSS (0) JMS (0)

soapUI log http log jetty log error log wsrm log memory log

5:21

Kui tuleb viisakas vastus, siis kõik töötab väga hästi

soapUI 4.5.1

File Tools Desktop Help

Search For...

Navigator

- Projects
 - BP test
 - bpSOAP
 - TellimuseEtamine
 - Request 1
 - Orders
 - OrderServicePortBinding
 - getAllOrders
 - Request 1
 - getOrdersByCustomerId
 - getOrdersByCustomerLastName
 - getOrdersByOrderId
 - getOrdersByShippingAddress
 - Töis
 - sais
 - tluaine
 - töis2
 - töis3
 - töis3
 - yhiskavad

Request Properties

| Property | Value |
|--------------|----------|
| Name | Request1 |
| Description | |
| Message Size | 271 |

Properties

Raw XML Response Headers Attachments SSL Info WSS JMS JMS Pro... response time: 797ms (240 bytes)

soapUI log http log jetty log error log wsrm log memory log

Request 1

http://localhost:8080/BP/services/bpSOAP

Raw XML Response Headers Attachments SSL Info WSS JMS JMS Pro... response time: 797ms (240 bytes)

soapEnv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope">

<soapenv:Header>

<ns1:MinuTellimus>

<ns2:MinuTellimusVastus xmlns:ns2="http://idu0080.ttu.ee/bp">

<teade:Huraas, kõk töötab</teade>

<ns2:MinuTellimusVastus>

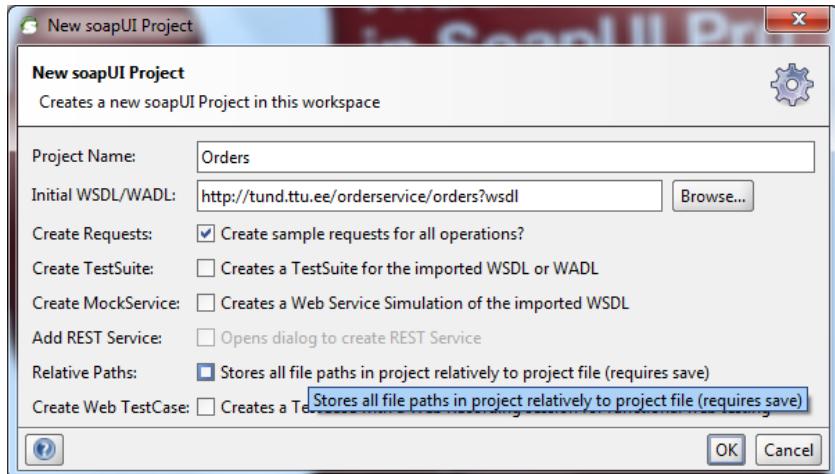
</ns1:MinuTellimus>

</soapenv:Body>

</soap:Envelope>

Kuidas teada saada, millised tellimuste ID on olemas?

Selleks tuleb teha uus soapUI projekt:



Navigeerida getAllOrders peale:

soapUI 4.5.1

File Tools Desktop Help

Search For...

Navigator

- Projects
 - Orders
 - OrderServicePortBinding
 - getAllOrders
 - getOrdersByCustomerId
 - getOrdersByCustomerLastName
 - getOrdersByOrderId
 - getOrdersByShippingAddress
 - Töis
 - sais
 - tluaine
 - töis2
 - töis3
 - töis3
 - yhiskavad

Interface Properties

| Property | Value |
|----------------|---|
| Name | OrderServicePortBind... |
| Description | |
| Definition URL | http://tund.ttu.ee/ord... |

Properties

soapUI log http log jetty log error log wsrm log memory log

soapUI Starter Page

Hidden Gems in SoapUI Pro (That you should use today)

1 WSDL Refactoring
2 SQL Query Builder
3 Security Generator

Read more... Download Free Trial SoapUI 14-day evaluation

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Online Documentation at your service [To SoapUI documentation](#)

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Teha Request1 lahti ja käivitada

The screenshot shows the SoapUI interface with the following details:

- Navigator:** Shows a project named "Orders" containing "OrderServicePortBinding" which has methods: getAllOrders, getOrdersByCustomer, getOrdersByCustomerLastName, getOrdersById, and getOrdersByShippingAddress. A specific request named "Request 1" is selected under "getAllOrders".
- Request Properties:** A table with one row:

| Property | Value |
|----------|----------|
| Name | Request1 |
- Request 1 Details:** The main panel displays the XML structure of the request and response.
 - Raw (XML):** The request XML is shown as:<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
<soapenv:Header>
<ns2:getAllOrdersResponse xmlns:ns2="http://server.order.idu0080.ttu"/>
<return>
<customer>
<first_name>Juhani</first_name>
<last_name>Juurikas</last_name>
</customer>
<order_id>1</order_id>
<order_products>
<order_product>1</order_product>
<price>400.0</price>
<price_total>400.0</price_total>
<product_count>1</product_count>
<product_name>ProLant ML110</product_name>
</order_products>
<price_total>400.0</price_total>
<seller>
<addresses>
<address>2</address>
<country>Eesti</country>
<country>Pärnu</country>
<street_address>Torukese 95</street_address>
<town_village>Pärnu</town_village>
<zipcode>111222</zipcode>
</addresses>
<enterprise>2</enterprise>
<name>Elektrood</name>
</seller>
<shipping_address>
<address>1</address>
 - Raw (Text):** The response XML is shown as:\$ Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
\$ Body>
<ns2:getAllOrdersResponse xmlns:ns2="http://server.order.idu0080.ttu">
<return>
<customer>
<first_name>Juhani</first_name>
<last_name>Juurikas</last_name>
</customer>
<order_id>1</order_id>
<order_products>
<order_product>1</order_product>
<price>400.0</price>
<price_total>400.0</price_total>
<product_count>1</product_count>
<product_name>ProLant ML110</product_name>
</order_products>
<price_total>400.0</price_total>
<seller>
<addresses>
<address>2</address>
<country>Eesti</country>
<country>Pärnu</country>
<street_address>Torukese 95</street_address>
<town_village>Pärnu</town_village>
<zipcode>111222</zipcode>
</addresses>
<enterprise>2</enterprise>
<name>Elektrood</name>
</seller>
<shipping_address>
<address>1</address>
- Bottom Panel:** Headers (5), Attachments (0), SSL Info, WSS (0), JMS (0). Response time: 431ms (20995 bytes).

Paremas nurgas on toodud tellimuste loetelu ja **order_id** tagide vahel asuvadki tellimuste ID-d, mida tohib kasutada