

# NHÓM 1: Quý- Kỳ- Nhật

## TÀI LIỆU HƯỚNG DẪN TẠO WEB SERVICE TRÊN ECLIPSE

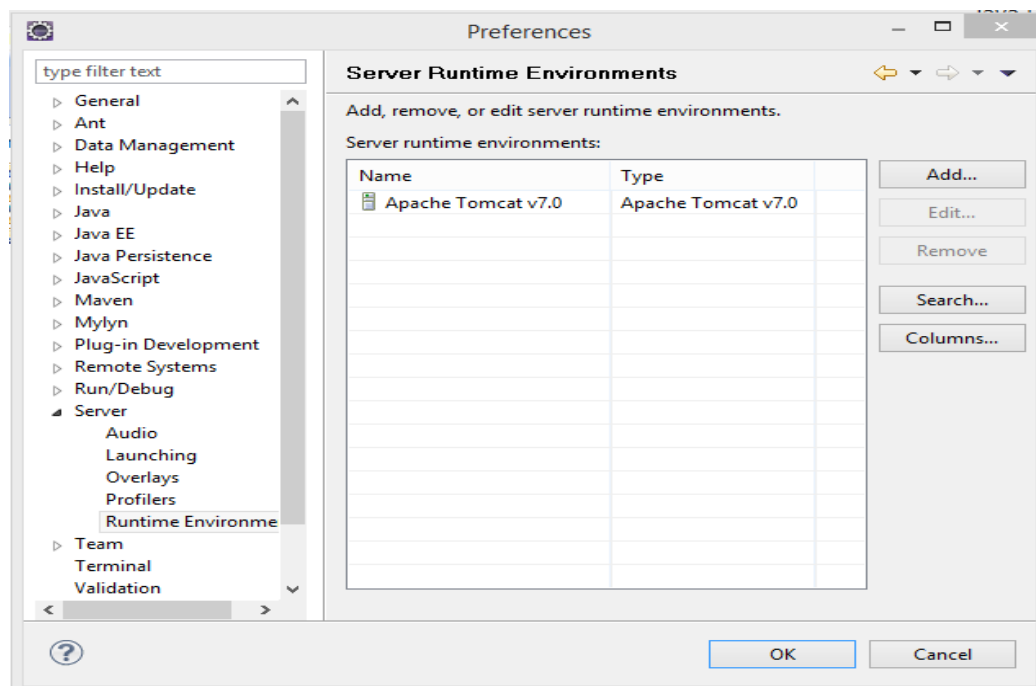
### 1. Chuẩn bị

- Apache Tomcat v7: Download ngay trên Eclipse khi cấu hình tomcat.
- Axis2: <http://mirrors.digipower.vn/apache//axis/axis2/java/core/1.6.2/axis2-1.6.2-bin.zip>
- Eclipse Java EE IDE: [http://download.nus.edu.sg/mirror/eclipse//technology/epp/downloads/release/kepler/SR2/eclipse-jee-kepler-SR2-win32-x86\\_64.zip](http://download.nus.edu.sg/mirror/eclipse//technology/epp/downloads/release/kepler/SR2/eclipse-jee-kepler-SR2-win32-x86_64.zip)

### 2. Thực thi

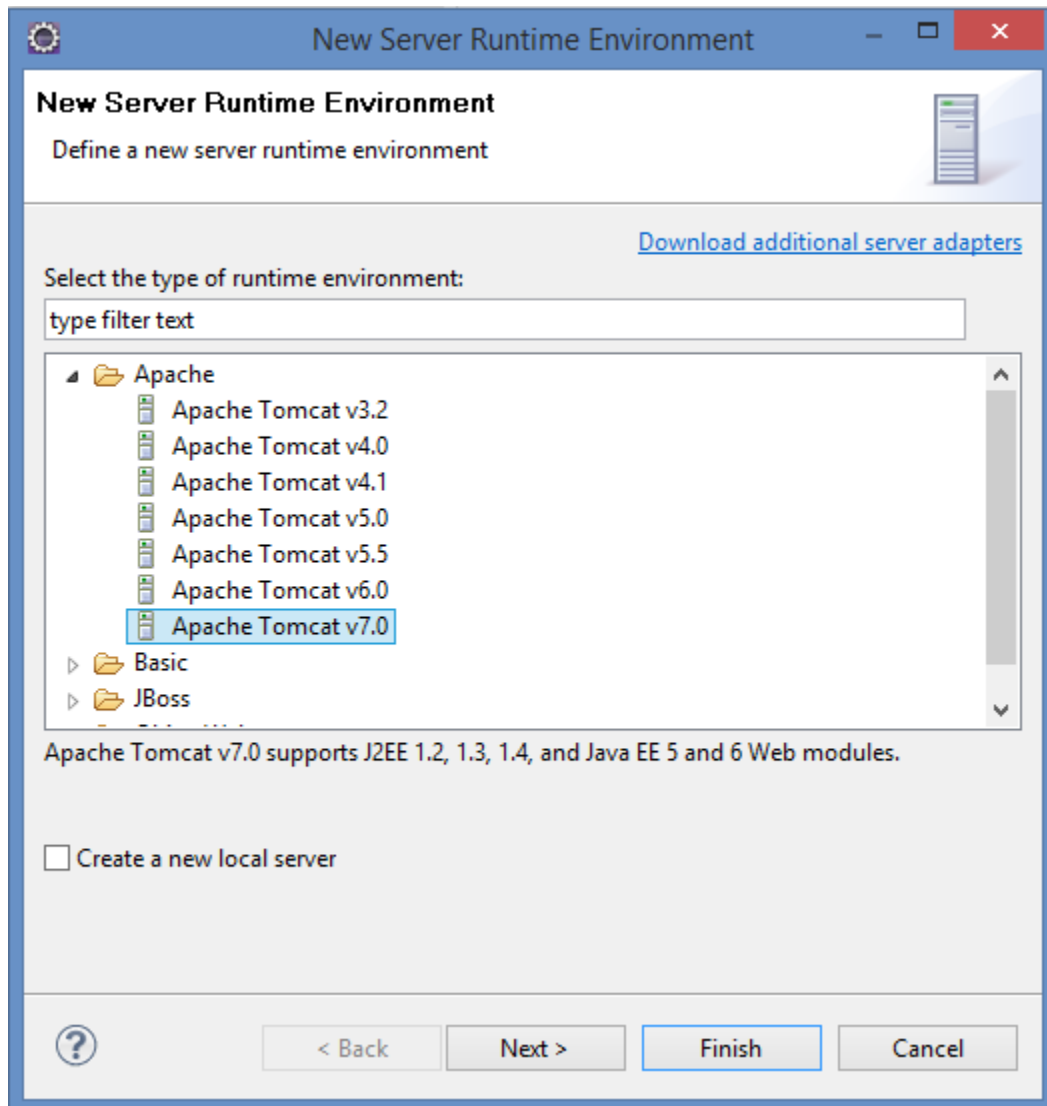
#### 2.1 Cấu hình Tomcat

- Eclipse → Windows → Preferences → Server → Runtime... → Add



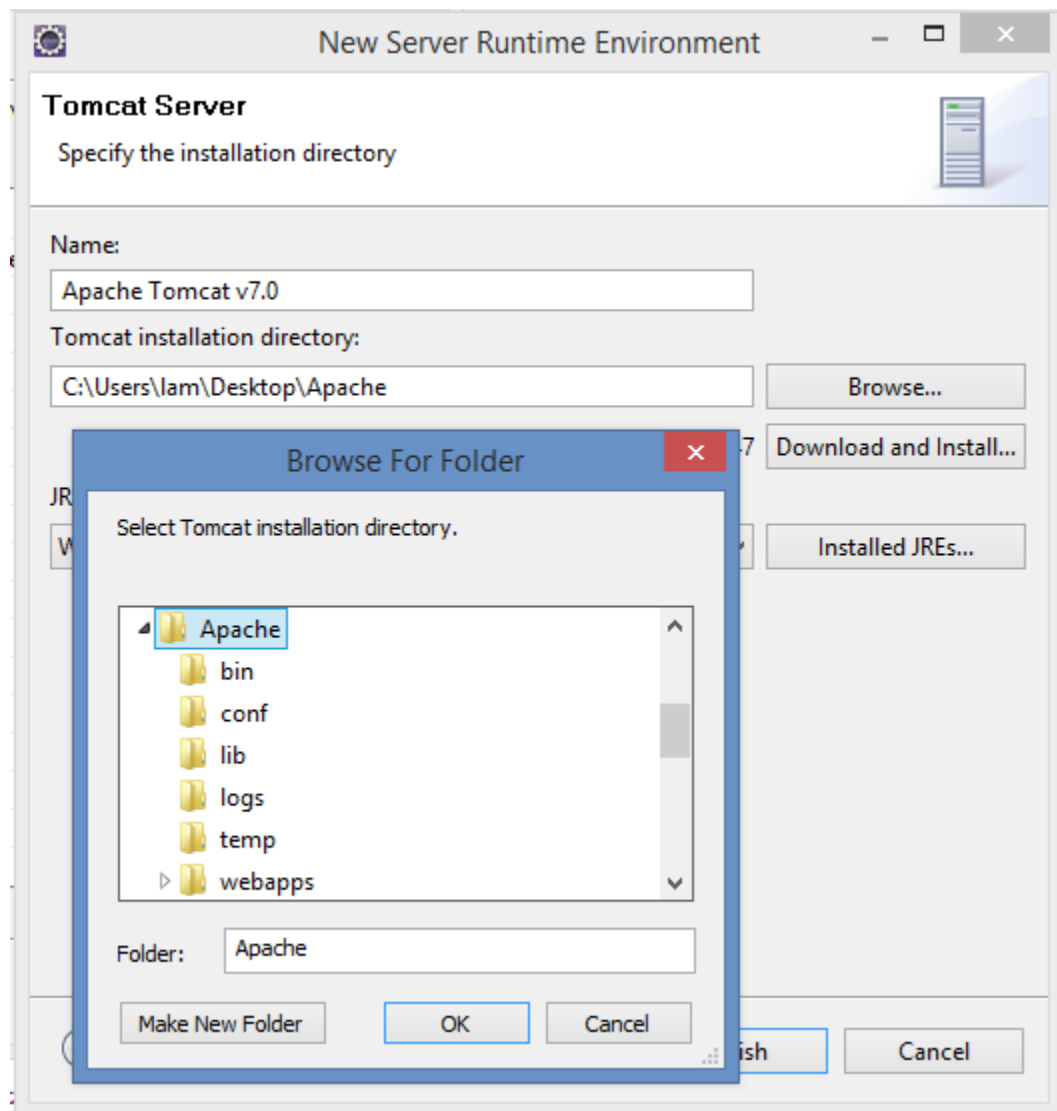
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- Chọn Apache Tomcat v7.0 → Next...



## NHÓM 1: Quý- Kỳ- Nhật

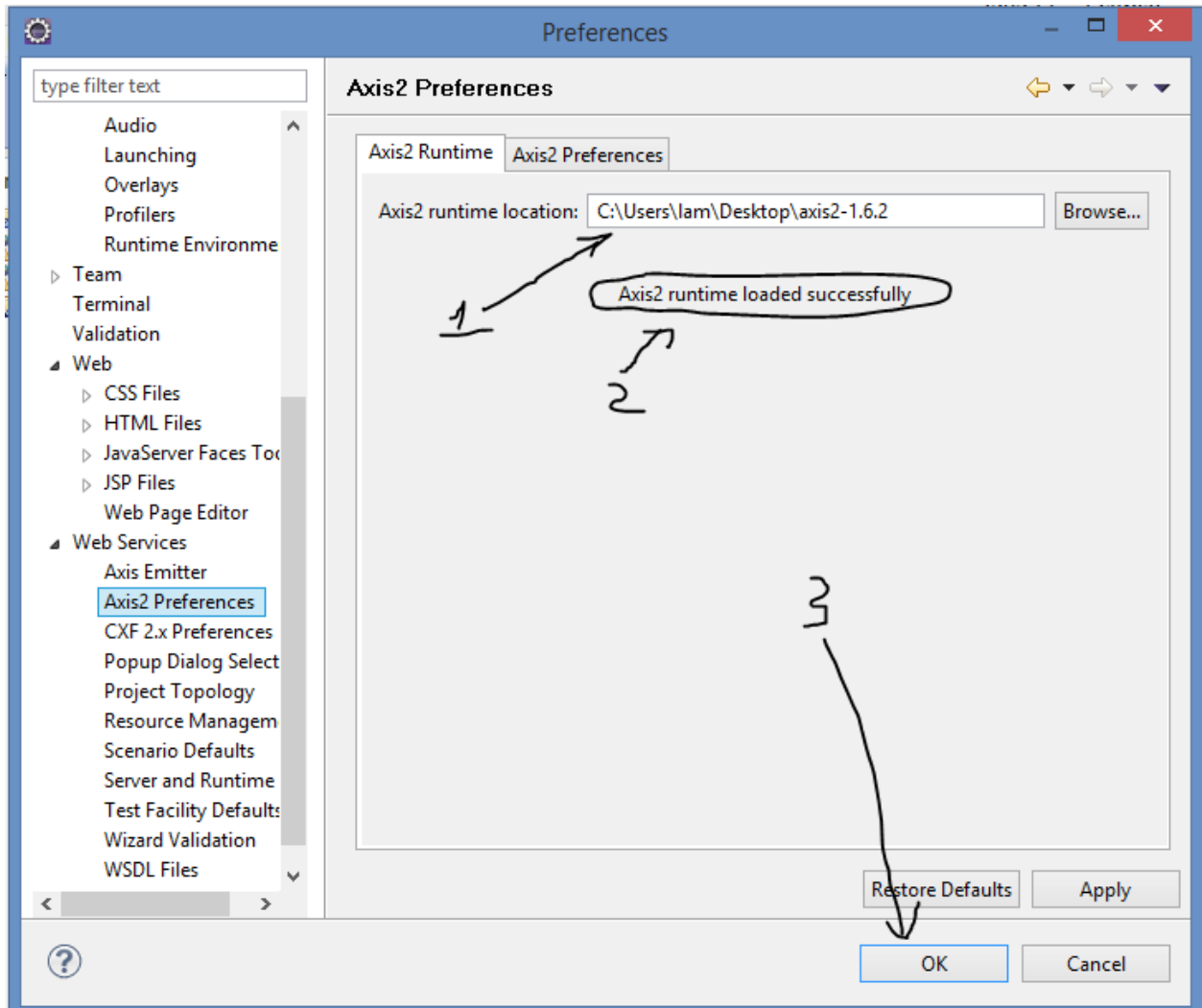
- Chọn Browse → Chọn Thư mục chứa Apache → OK → Finish



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## 2.2 Cấu hình Axis2

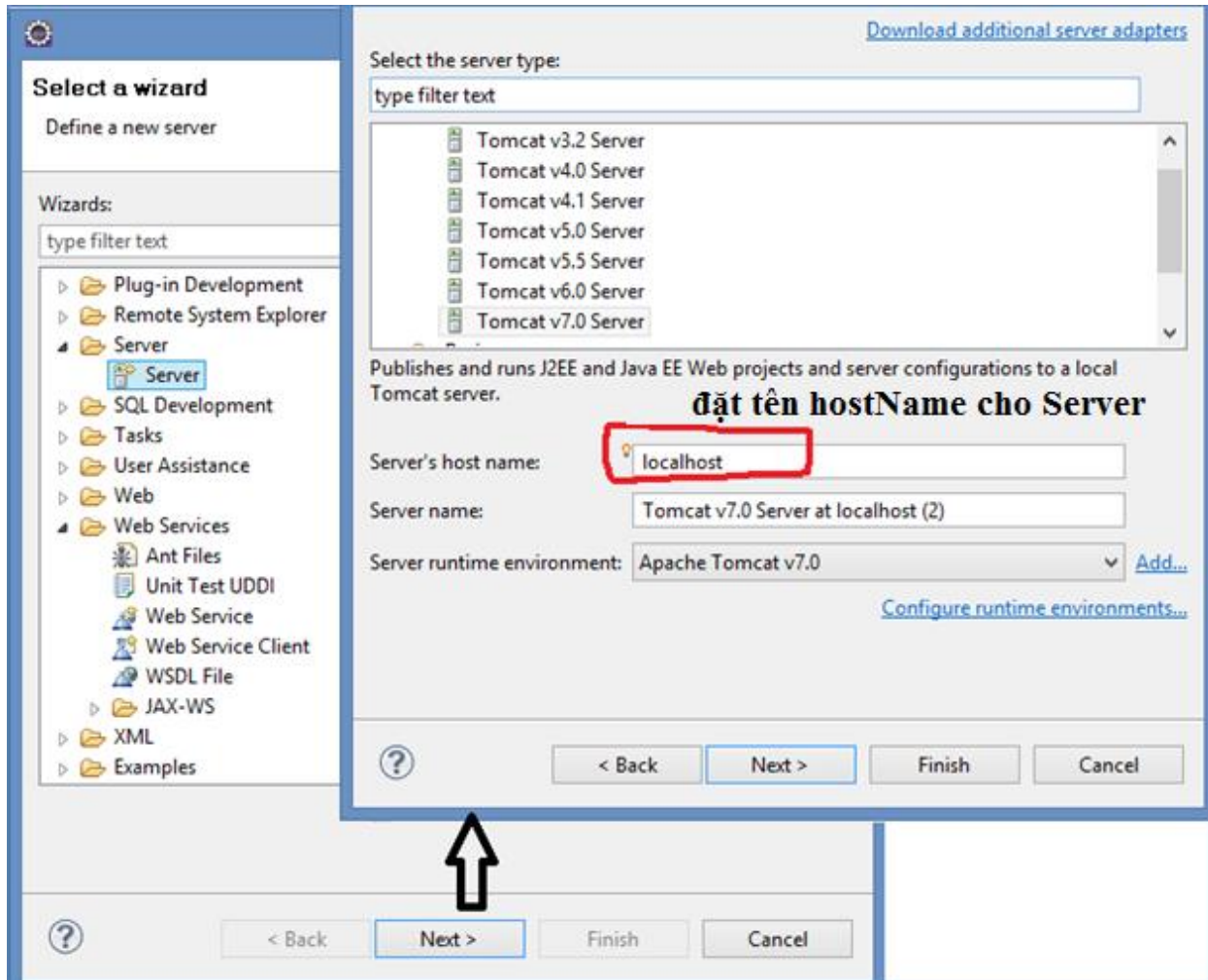
- Eclipse → Windows → Preferences → Web Services → Axis2 preferences



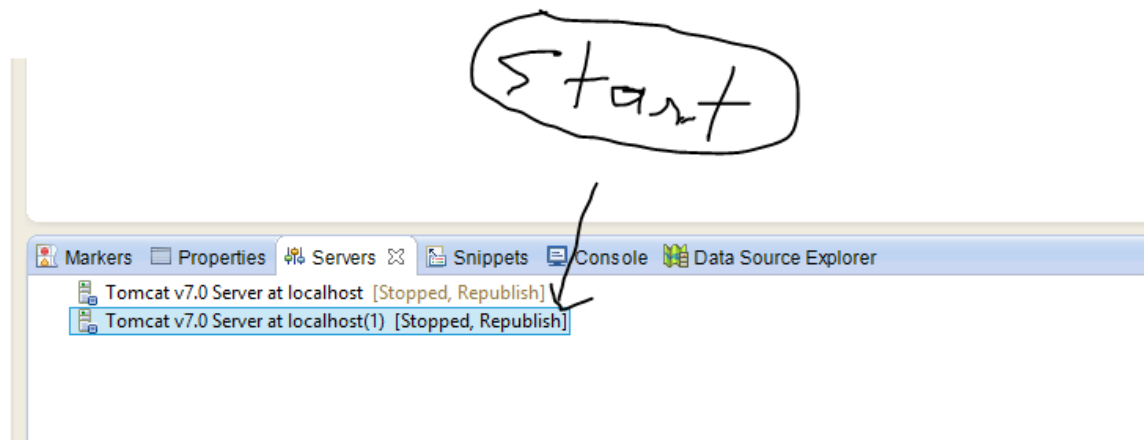
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## 3. Tạo Server

- File → New → Other → Server → Next → Đặt tên hostname → Finish



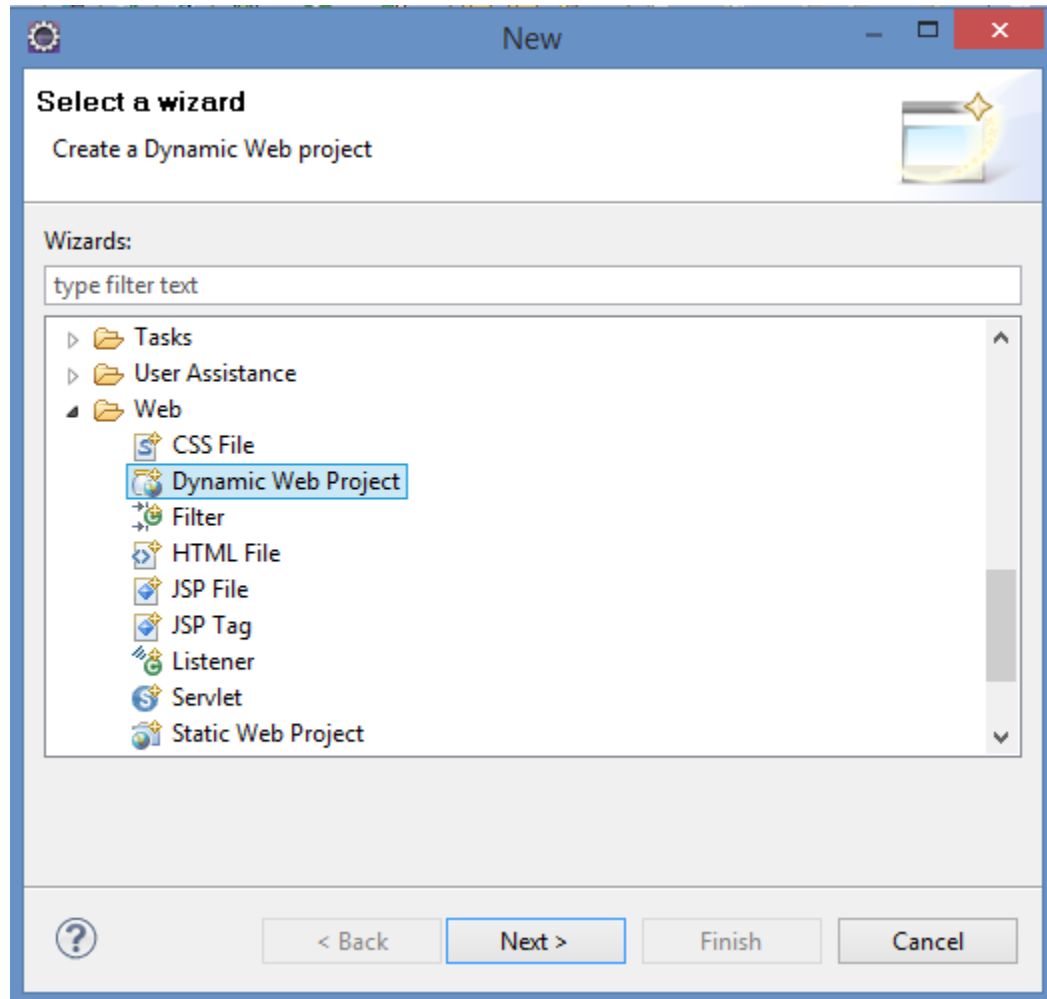
- Start Server mới vừa tạo



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## 4. Tạo Web Project

- File->New->Project, Chọn Dynamic Web Project



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- Điền đầy đủ thông tin như bên dưới → Finish

**Dynamic Web Project**  
Create a standalone Dynamic Web project or add it to a new or existing Enterprise Application.

Project name:

Project location  
 Use default location  
Location:

Target runtime

Dynamic web module version  
 **1**

Configuration  
  **2**

Hint: Get started quickly by selecting one of the pre-defined project configurations.

EAR membership  
 Add project to an EAR  
EAR project name:

Working sets  
 Add project to working sets  
Working sets:

**Project Facets**  
Select the facets that should be enabled for this project.

Configuration:

Project Facet	Version
<input checked="" type="checkbox"/> Axis2 Web Services	
<input type="checkbox"/> CXF 2.x Web Services	1.0
<input checked="" type="checkbox"/> Dynamic Web Module	2.5
<input checked="" type="checkbox"/> Java	1.7
<input type="checkbox"/> JavaScript	1.0
<input type="checkbox"/> JavaServer Faces	2.2
<input type="checkbox"/> JAX-RS (REST Web Services)	1.1
<input type="checkbox"/> JAXB	2.2
<input type="checkbox"/> JPA	2.1
<input type="checkbox"/> WebDoclet (XDoclet)	1.2.3

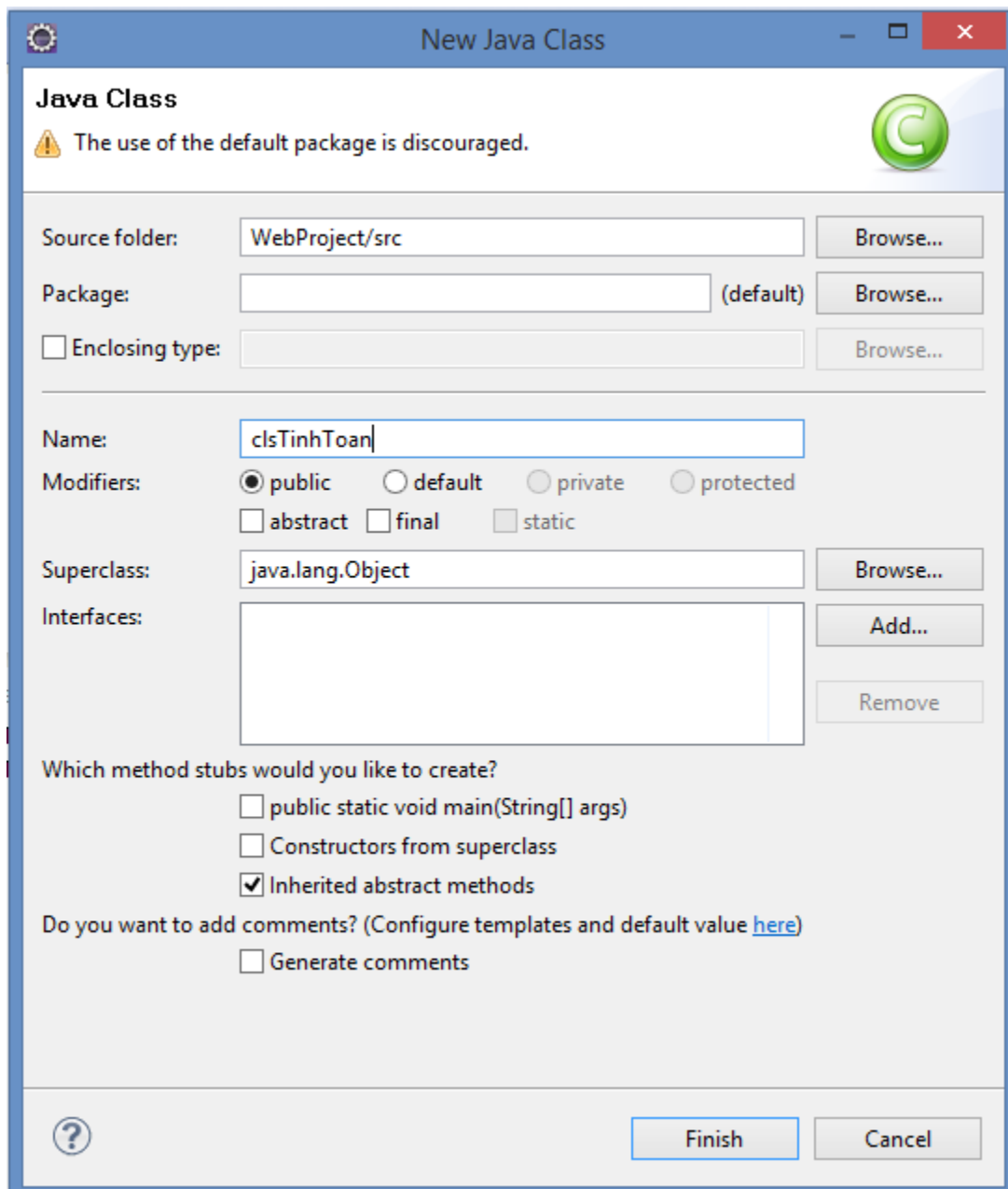
**Axis2 Web Services**  
Enables Web services generation through the Axis2 Web services engine.

**4**

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### 4.1 Tạo file java chứa các hàm ta cần trong Web Project

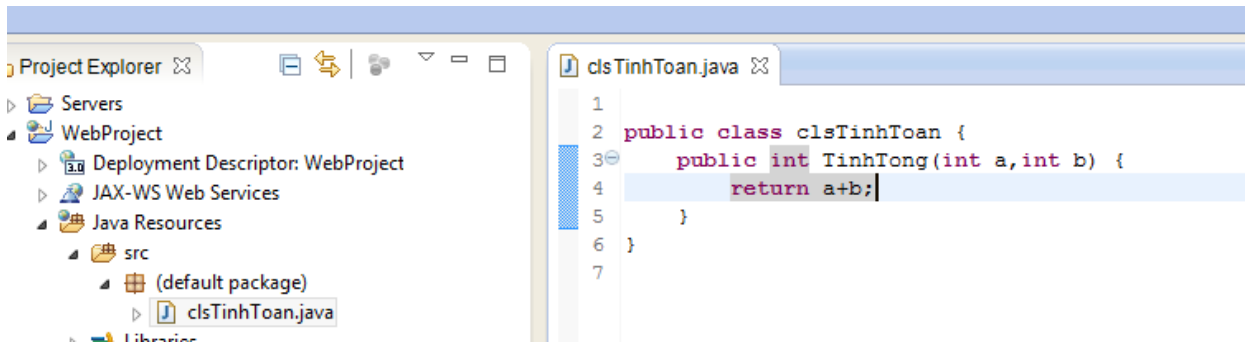
- Trong cửa sổ Project Explorer, nhấn phải chuột lên project vừa tạo → New → Class → đặt tên cho class → Finish.





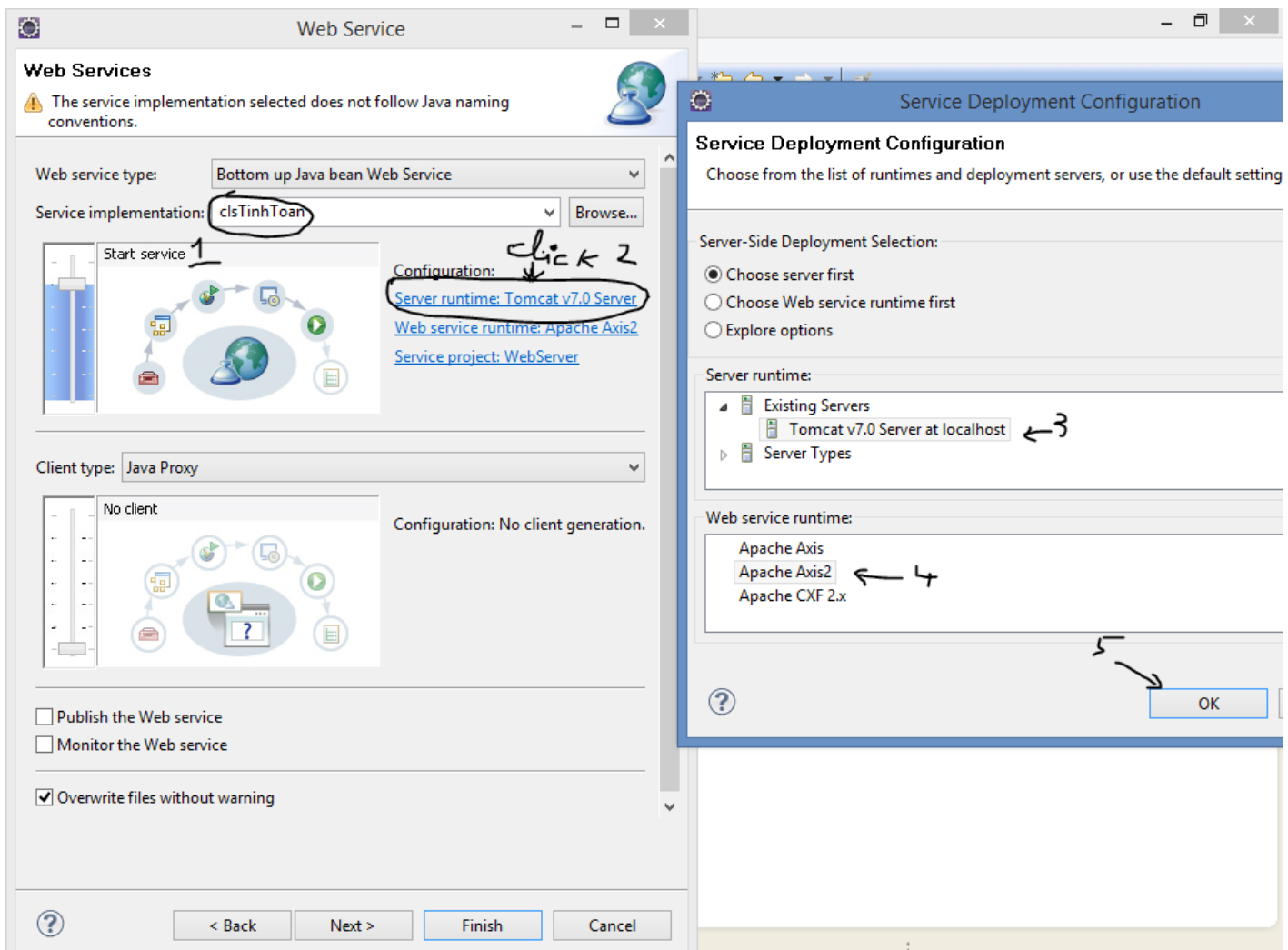
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- Xây dựng hàm tính toán trong class mới vừa tạo



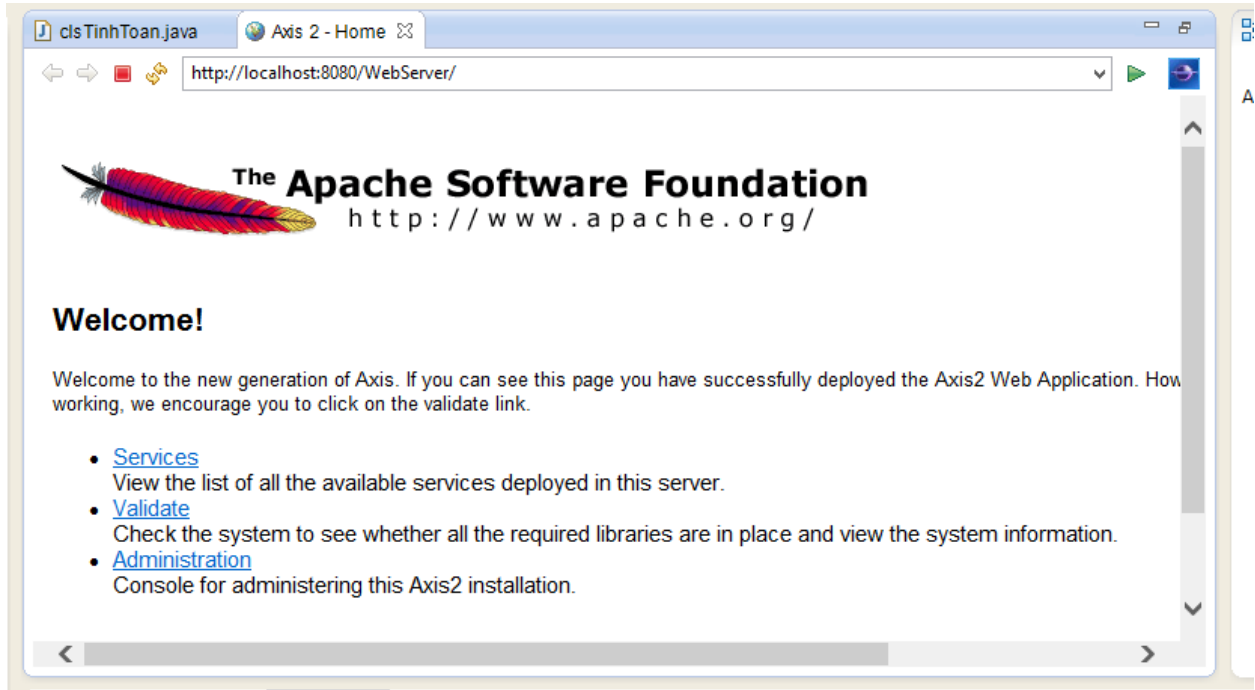
## 5. Tạo Web Services

- Trong Project Explorer, nhấn chuột phải lên lớp clsTinhToan và tạo, chọn New → Others → Web Service → Điền thông tin như hình → next → Finish

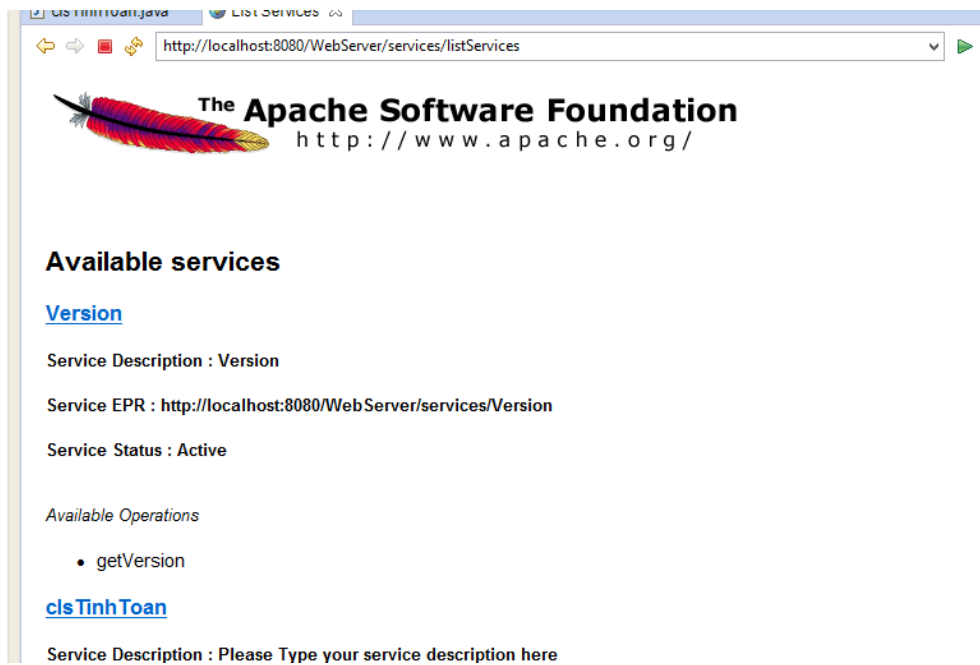


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- Chọn Web Project vừa tạo → Run → Ta được kết quả sau

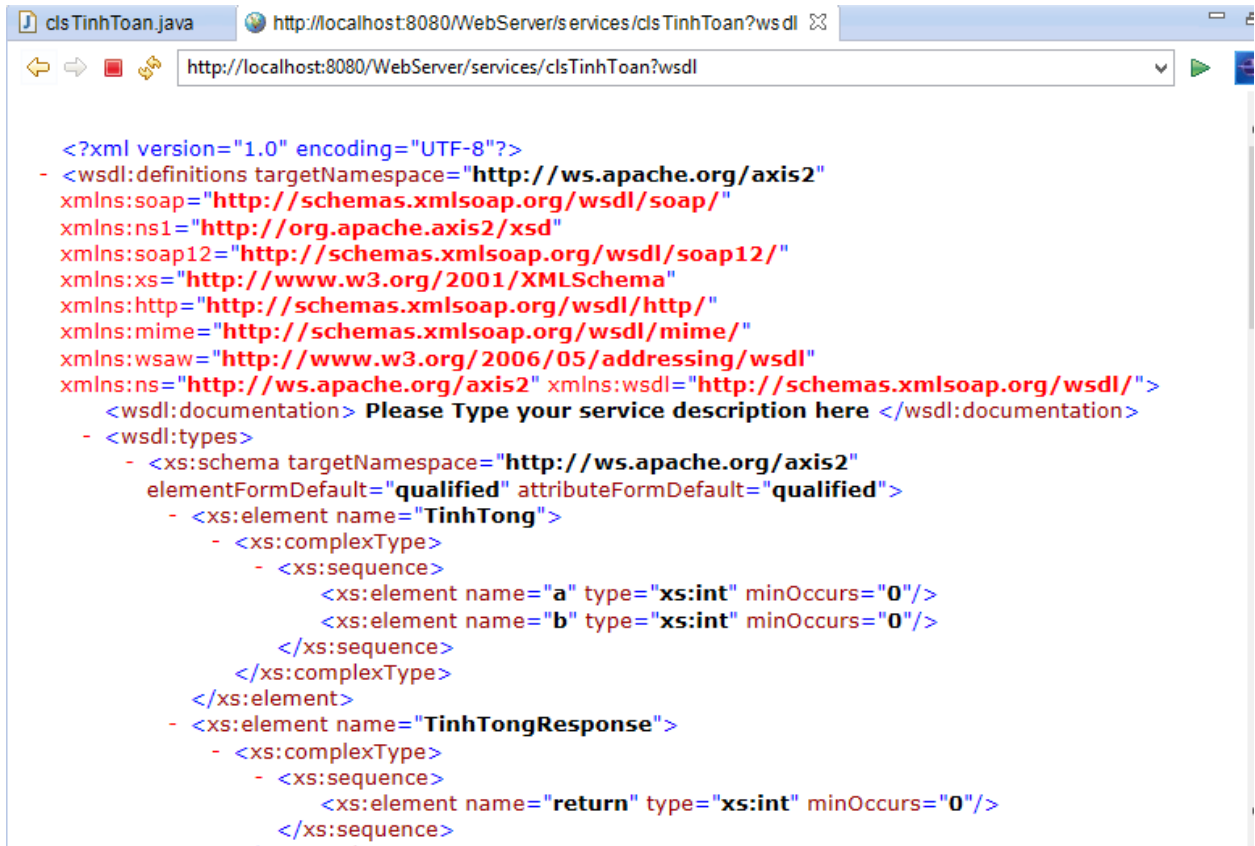


- Nhấn chọn link Services ta được



## NHÓM 1: Quý- Ký- Nhật

- Nhấn chọn clsTinhToan ta sẽ xem được file WSDL như hình sau



```
<?xml version="1.0" encoding="UTF-8"?>
- <wsdl:definitions targetNamespace="http://ws.apache.org/axis2"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:ns1="http://org.apache.axis2/xsd"
  xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
  xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
  xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"
  xmlns:ns="http://ws.apache.org/axis2" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:documentation> Please Type your service description here </wsdl:documentation>
  - <wsdl:types>
    - <xs:schema targetNamespace="http://ws.apache.org/axis2"
      elementFormDefault="qualified" attributeFormDefault="qualified">
      - <xs:element name="TinhTong">
        - <xs:complexType>
          - <xs:sequence>
            <xs:element name="a" type="xs:int" minOccurs="0"/>
            <xs:element name="b" type="xs:int" minOccurs="0"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      - <xs:element name="TinhTongResponse">
        - <xs:complexType>
          - <xs:sequence>
            <xs:element name="return" type="xs:int" minOccurs="0"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:schema>
  </wsdl:types>
</wsdl:definitions>
```

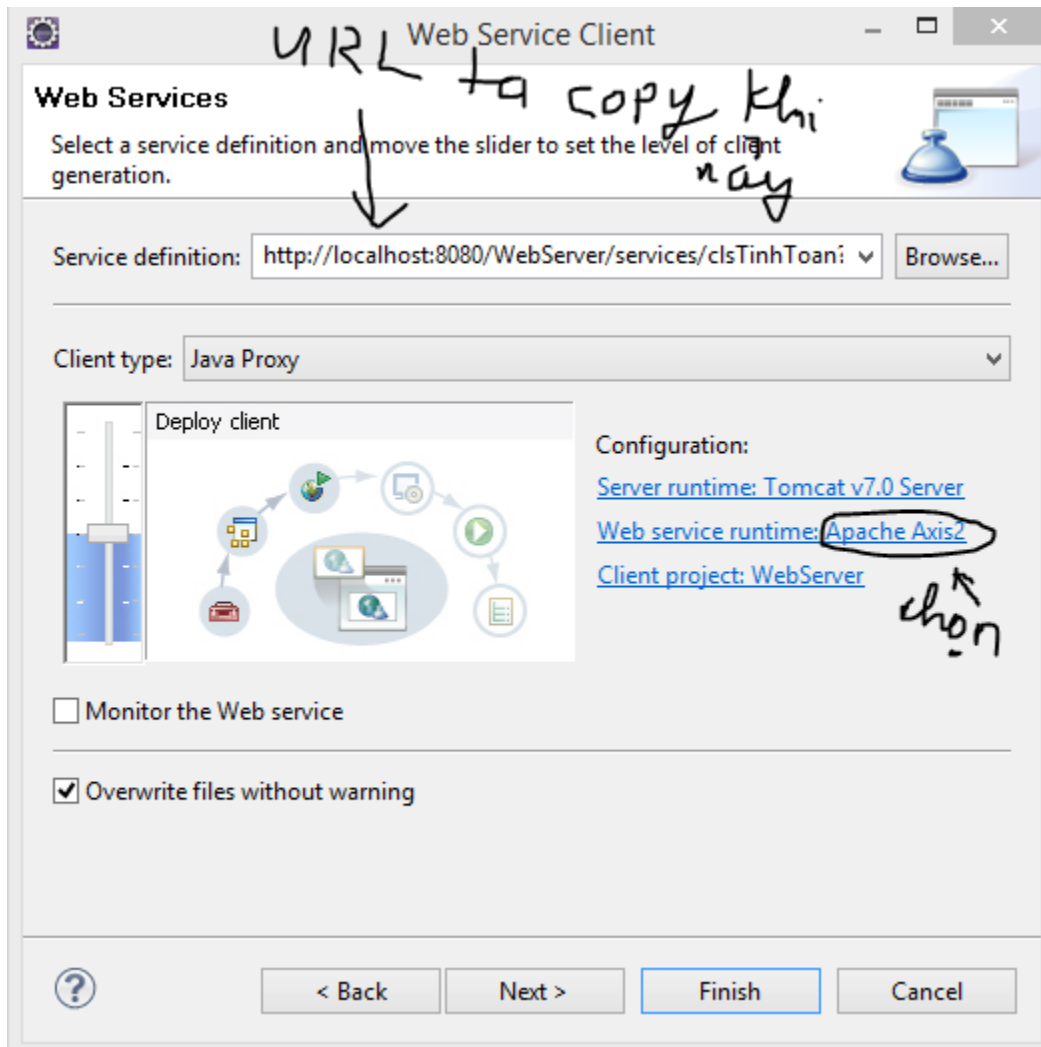
Copy URL

<http://localhost:8080/WebServer/services/clsTinhToan?wsdl> để dùng cho Client

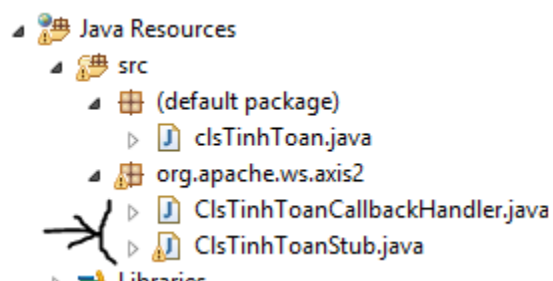
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### 6. Tạo Web Service client

New -> Other -> Web Services -> Web Service Client

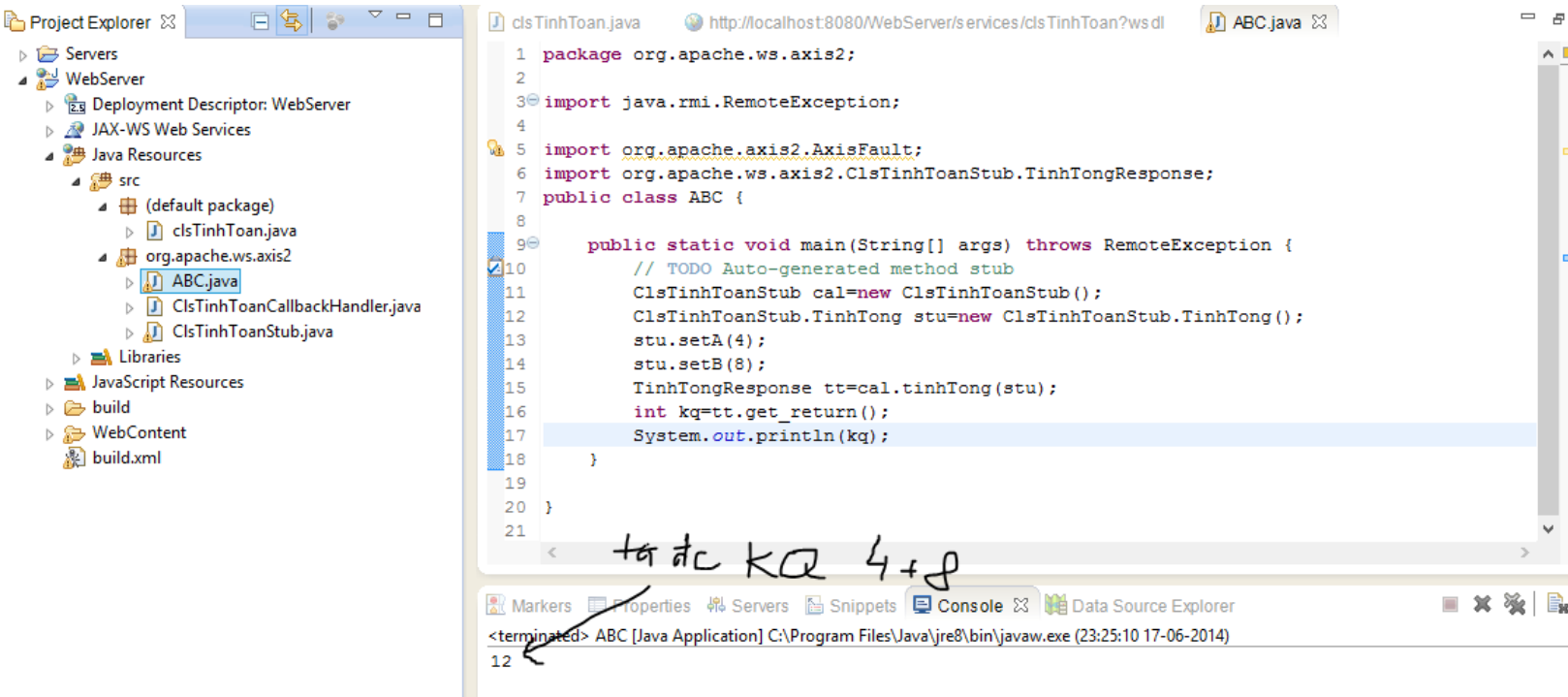


Nhấn nút Finish. Ta sẽ thấy eclipse sinh cho chúng ta 2 lớp khác là `ClsTinhToanCallbackHandler.java` và `ClsTinhToanStub.java` như hình sau



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⇒ Trên project explorer nhấn chuột phải, chọn New->Class, đặt tên ABC trong package. Và thực thi đoạn code sau



```
1 package org.apache.ws.axis2;
2
3 import java.rmi.RemoteException;
4
5 import org.apache.axis2.AxisFault;
6 import org.apache.ws.axis2.ClsTinhToanStub.TinhTongResponse;
7 public class ABC {
8
9     public static void main(String[] args) throws RemoteException {
10         // TODO Auto-generated method stub
11         ClsTinhToanStub cal=new ClsTinhToanStub();
12         ClsTinhToanStub.TinhTong stu=new ClsTinhToanStub.TinhTong();
13         stu.setA(4);
14         stu.setB(8);
15         TinhTongResponse tt=cal.tinhTong(stu);
16         int kq=tt.get_return();
17         System.out.println(kq);
18     }
19 }
20 }
21
```

thuc KQ 4+8

<terminated> ABC [Java Application] C:\Program Files\Java\jre8\bin\javaw.exe (23:25:10 17-06-2014)

## Kết luận

Như vậy là chúng ta đã tạo được 1 webservice đơn giản dùng IDE eclipse, một IDE mạnh mẽ và FREE