TÀI LIỆU HƯỚNG DẪN TẠO WEB SERVICE TRÊN ECLIPSE

1. Chuẩn bị

- Apache Tomcat v7: Download ngay trên Eclipse khi cấu hình tomcat.
- Axis2: <u>http://mirrors.digipower.vn/apache//axis/axis2/java/core/1.6.2/axis2-1.6.2-bin.zip</u>
- Eclipse Java EE IDE: http://download.nus.edu.sg/mirror/eclipse//technology/epp/downloads/release/kep ler/SR2/eclipse-jee-kepler-SR2-win32-x86_64.zip
 - 2. Thực thi

2.1 Cấu hình Tomcat

| | Preferences | | × |
|--|--|----------------------------|---------|
| pe filter text | Server Runtime Enviro | onments | ↓ ↓ ↓ ↓ |
| General Ant Data Management | Add, remove, or edit server r Server runtime environments | untime environments. s: | |
| Help | Name | Туре | Add |
| Install/Update Java | Apache Tomcat v7.0 | Apache Tomcat v7.0 | Edit |
| Java EE Java Persistence | | | Remove |
| Maven | | | Search |
| Plug-in Development Remote Systems Run/Debug Server Audio Launching Overlays Profilers Runtime Environme Team Terminal Validation | | | Columns |
| Profilers Runtime Environme Team Terminal Validation | | | |

- Eclipse \rightarrow Windows \rightarrow Preferences \rightarrow Server \rightarrow Runtime... \rightarrow Add

- Chọn Apache Tomvat v7.0 →Next...

| New Server Runtime Environment | × |
|--|------|
| New Server Runtime Environment | |
| Define a new server runtime environment | |
| Download additional server adap | ters |
| Select the type of runtime environment: | |
| type filter text | |
| 🔺 🗁 Apache | ^ |
| Apache Tomcat v3.2 | |
| Apache Tomcat v4.0 | |
| Apache Tomcat v4.1 | |
| Apache Tomcat v5.0 | |
| Apache Tomcat v5.5 | |
| Apache Tomcat v6.0 | |
| Apache Tomcat v7.0 | |
| b 🗁 Basic | |
| JBoss | ¥ |
| Apache Tomcat v7.0 supports J2EE 1.2, 1.3, 1.4, and Java EE 5 and 6 Web modules. | |
| Create a new local server | |
| Cancel | |

- Chọn Browse \rightarrow Chọn Thư mục chứa Apache \rightarrow OK \rightarrow Fisnish



- 2.2 Cấu hình Axis2
 - Eclipse → Windows → Preferences → Web Services → Axis2
 preferences

| ۲ | Preferences | – 🗆 🗙 |
|--|---|--------------------|
| type filter text | Axis2 Preferences | ⇔ ▼ ⇔ ▼ ▼ |
| type filter text Audio Launching Overlays Profilers Runtime Environme Terminal Validation Web CSS Files HTML Files JavaServer Faces Toc JSP Files Web Page Editor Web Services Axis Emitter Axis2 Preferences CXF 2.x Preferences Popup Dialog Select | Axis2 Preferences Axis2 Runtime Axis2 Preferences Axis2 runtime location: C:\Users\lam\Desktop\axis2-1.6.2 Axis2 runtime loaded successfully | |
| Project Topology Project Topology Resource Managem Scenario Defaults Server and Runtime Test Facility Defaults Wizard Validation WSDL Files | Restore Defaul OK | ts Apply Cancel |

3. Tạo Server

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

| 2 | Select the server type: | 000 | inigad additional server adapte |
|--|--|---|---------------------------------|
| Select a wizard | type filter text | | |
| Define a new server Wizards: | Tomcat v3.2 Serv Tomcat v4.0 Serv | er er er | , |
| type filter text | Tomcat v5.0 Serv | er | |
| Plug-in Development Remote System Explorer | Tomcat v6.0 Serv | er er | |
| Server SQL Development SQL Tasks User Assistance Web Web Services | Publishes and runs J2EE and J Tomcat server. Server's host name: | ava EE Web projects and server đặt tên hostN localhost Tomcat v7.0 Server at localho | ame cho Server |
| 影 Ant Files | Server runtime environment: | Apache Tomcat v7.0 | ✓ Ada |
| Unit Test UDDI | | <u>C</u> | onfigure runtime environment |
| Examples | ? < B | ack Next > | Finish Cancel |
| 0 | Û | | |

- Start Server mới vừa tạo



4. Tạo Web Project

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



- Điền đầy đủ thông tin như bên dưới \rightarrow Finish

| Dynamic Web Project 🔍 | 0 | Project F | acets |
|--|--|-----------------|---|
| Create a standalone Dynamic Web project or add it to a new or existing Enterprise Application. | Project Facets Select the facets that should be enabled for | r this project. | |
| Project name: WebServer Project location Use default location Location: C:\Users\lam\workspace\WebServer Target runtime Apache Tomcat v7.0 V New Runtime Dynamic web module version 2.5 Configuration < custom> Hint: Get started quickly by selecting one of the pre-defined project configurations. EAR membership Z | Select the facets that should be enabled for Configuration: <custom> Project Facet</custom> | r this project. | Save As Dela Details Runtimes Axis2 Web Services Enables Web services generation through the Axis2 W services engine. |
| Add project to an EAR EAR project name: WebServerEAR Working sets Add project to working sets Working sets: v Select | 3 | | 4 |

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.

| ۲ | New Java Class | - 🗆 🗙 | | | |
|--|---|--------|--|--|--|
| Java Class | efault package is discouraged. | C | | | |
| Source folder: | WebProject/src | Browse | | | |
| Package: | (default) | Browse | | | |
| Enclosing type: | | Browse | | | |
| Name: Modifiers: | clsTinhToan ● public O default O private O protected abstract final static | | | | |
| Superclass: | java.lang.Object | Browse | | | |
| Interfaces: | | Add | | | |
| | | Remove | | | |
| Which method stubs would you like to create? public static void main(String[] args) Constructors from superclass Inherited abstract methods | | | | | |
| Do you want to add | comments? (Configure templates and default value <u>here</u>) | | | | |
| ? | Finish | Cancel | | | |

- Xây dựng hàm tính toán trong class mới vừa tạo



5. Tạo Web Services

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

| Web Ser | vice | - 🗆 × | × – – × |
|---|-----------------------|--|--|
| Web Services | | | |
| A The service implementation selected does not conventions. | follow Java naming | 2 | Service Deployment Configuration |
| Web service type: Service implementation: Start service | Web Service | Browse Browse Cat v7.0 Server Apache Axis2 Server | Service Deployment Configuration Choose from the list of runtimes and deployment servers, or use the default setting Server-Side Deployment Selection: Choose server first Choose Web service runtime first Explore options Server runtime: Existing Servers Tomcat v7.0 Server at localhost |
| Client type: Java Proxy | | ~ | Server Types |
| No client | Configuration: No cli | ient generation. | Web service runtime: Apache Axis Apache Axis2 Apache CXF 2.x |
| Publish the Web service | | | ОК |
| Overwrite files without warning | | | ~ |
| ? < Back Next > | > Finish | Cancel | |

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



- Nhấn chọn link Services ta được



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

| D clsTinhToan.java @ http://localhost:8080/WebServer/services/clsTinhToan?wsdl ⊠ | | | | | |
|---|--|--|-----|--|--|
| 🗇 🔳 🧇 | nttp://localhost:8080/WebServer/services/clsTinhToan?wsdl | | > 🗧 | | |
| xml versi<br - <wsdl:defini xmlns:soap: xmlns:ns1= xmlns:soap: xmlns:vs="I xmlns:http= xmlns:mime xmlns:wsaw xmlns:ns="I <wsdl:d - <wsdl:t< td=""><td>on="1.0" encoding="UTF-8"?> tions targetNamespace="http://ws.apache.org/axis2" ="http://schemas.xmlsoap.org/wsdl/soap/" "http://org.apache.axis2/xsd" !2="http://schemas.xmlsoap.org/wsdl/soap12/" http://www.w3.org/2001/XMLSchema" "http://schemas.xmlsoap.org/wsdl/http/" ="http://schemas.xmlsoap.org/wsdl/http/" ="http://schemas.xmlsoap.org/wsdl/mime/" ="http://www.w3.org/2006/05/addressing/wsdl" http://ws.apache.org/axis2" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"> ocumentation> Please Type your service description here /pes></td><td></td><td></td></wsdl:t<></wsdl:d </wsdl:defini | on="1.0" encoding="UTF-8"?> tions targetNamespace="http://ws.apache.org/axis2" ="http://schemas.xmlsoap.org/wsdl/soap/" "http://org.apache.axis2/xsd" !2="http://schemas.xmlsoap.org/wsdl/soap12/" http://www.w3.org/2001/XMLSchema" "http://schemas.xmlsoap.org/wsdl/http/" ="http://schemas.xmlsoap.org/wsdl/http/" ="http://schemas.xmlsoap.org/wsdl/mime/" ="http://www.w3.org/2006/05/addressing/wsdl" http://ws.apache.org/axis2" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"> ocumentation> Please Type your service description here /pes> | | | | |
| - <xs elen</xs | schema targetNamespace="http://ws.apache.org/axis2" hentFormDefault="qualified" attributeFormDefault="qualified"> | | | | |
| - | <xs:element name="TinhTong"></xs:element> | | | | |
| | - <xs:complextype></xs:complextype> | | | | |
| | <pre>- <xs:sequence></xs:sequence></pre> | | | | |
| | | | | | |
| | | | | | |
| _ | | | | | |
| | - <xs:complextype></xs:complextype> | | | | |
| | - <xs:sequence></xs:sequence> | | | | |
| | <pre><xs:element minoccurs="0" name="return" type="xs:int"></xs:element></pre> | | | | |
| | | | | | |

Copy URL

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

6. Tạo Web Service client

New -> Othe -> Web Services -> Web Service Client

| URI | Web Service | Client | - | | × |
|---|------------------|---|---------------------------|----------------|----|
| Web Services | \rightarrow +q | COPY Khi | | Ţ | |
| generation. | | nay | _ | | _ |
| Service definition: http://local/ | nost:8080/WebSe | rver/services/clsTinhToar | ni 🗸 | Brow | se |
| Client type: Java Proxy | | | | | ~ |
| Deploy client | | Configuration: Server runtime: Tomco Web service runtime: Client project: WebSer | at v7.0 Apache rver | Serve Axisi | |
| Monitor the Web service | | | | | |
| Overwrite files without warning of the second se | ng | | | | |
| ? < Back | Next > | Finish | (| Cance | I |

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



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



Kết luận

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