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| Software Engineering of Distributed Systems, KTH |
| Programming Web Services Homework 3 |
| Lab of UDDI |

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| Sike Huang and Shanbo Li  2008-2-10 |

## 1. A short description of your activities for installation of the tools (what problems did you face)

**Answer:**

### Installation of Java EE SDK

step 1: go to <http://java.sun.com/javaee/downloads/index.jsp>

step 2: click “Download with JDK”

step 3: select Windows as Platform, English as Language, confirm the license and continue

step 4: click java\_ee\_sdk-5\_04-windows.exe and run

step5: follow the instruction to install Java EE SDK

### 1.2 Installation of Netbeans and GlassFish

step 1: go to <http://download.netbeans.org/netbeans/6.0/final/>

step 2: download “java and web EE” edition

step 3: install Netbeans with GlassFish

### 1.3 Installation of AXIS 1.4

step 1: go to <http://apache.dataphone.se/ws/axis/1_4/>

step 2: download “[axis-bin-1\_4.zip](http://apache.dataphone.se/ws/axis/1_4/axis-bin-1_4.zip)” and unzip to local disk

step 3: copy %AXIS\_HOME%/webapps/axis to %TOMECAT\_HOME%/webapps

step 4: copy %AXIS\_HOME%/lib/\* to my project lib

### 1.4 Installation of MySQL

step 1: go to <http://dev.mysql.com/downloads/mysql/5.0.html#win32>

step 2: download “Windows ZIP/Setup.EXE (x86)” and run setup

step 3: follow the install guide and install MySQL

## 2. A short description of your activities for installation the UDDI registry.

**Answer:**

step 1: go to <http://ws.apache.org/juddi/releases.html>

step 2: download [juddi-web-2.0rc5.war](http://people.apache.org/repo/m2-ibiblio-rsync-repository/org/apache/juddi/juddi-web/2.0rc5/juddi-web-2.0rc5.war)

step 3: rename juddi-web-2.0rc5.war to juddi.war

step 4: copy juddi.war to %GLASSFISH\_HOME%/domains/domain1/autodeploy

step 5: create a database named "juddi" in MySQL

step 6: dump “create\_database.sql” from juddi\_home into DATABASE juddi

step 7: start GlassFish and configure a JNDI Datasource with a name of 'jdbc/juddiDB' in the GlassFish

step 8: start GlassFish and use <http://localhost:8080/juddi> to visit juddi home page

## 3. A protocol of compilation and execution of FindBusinessEntity.java

**Answer:**

### 3.1 compile:

go to PROJECT\_HOME and use follow command to compile FindBusinessEntity.java

"C:\Program Files\Java\jdk1.6.0\_04\bin\javac" -classpath "C:\Documents and Settings\Tom\.IntelliJIdea70\system\webservices\axis-1.4.0\wsdl4j-1.5.1.jar;C:\Documents and Settings\Tom\.IntelliJIdea70\system\webservices\axis-1.4.0\log4j-1.2.8.jar;C:\Documents and Settings\Tom\.IntelliJIdea70\system\webservices\axis-1.4.0\saaj.jar;C:\Documents and Settings\Tom\.IntelliJIdea70\system\webservices\axis-1.4.0\jaxrpc.jar;C:\Documents and Settings\Tom\.IntelliJIdea70\system\webservices\axis-1.4.0\commons-logging-1.0.4.jar;C:\Documents and Settings\Tom\.IntelliJIdea70\system\webservices\axis-1.4.0\commons-discovery-0.2.jar;C:\Documents and Settings\Tom\.IntelliJIdea70\system\webservices\axis-1.4.0\axis.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\charsets.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\deploy.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\javaws.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\jce.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\jsse.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\management-agent.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\plugin.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\resources.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\rt.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\ext\dnsns.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\ext\localedata.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\ext\sunjce\_provider.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\ext\sunmscapi.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\ext\sunpkcs11.jar;C:\IdeaProjects\PWS\_HW2\out\production\PWS\_HW2;C:\IntelliJ\_IDEA\_7.0.2\lib\javaee.jar;C:\sun\_mail;C:\sun\_mail\mail.jar;C:\activation;C:\activation\activation.jar;C:\junit4.4;C:\junit4.4\junit-4.4-src.jar;C:\junit4.4\junit-4.4.jar;C:\juddi2\_client;C:\juddi2\_client\juddi-2.0rc5.jar;C:\juddi2\_client\juddi-client-2.0rc5.jar;C:\IntelliJ\_IDEA\_7.0.2\lib\idea\_rt.jar" .\src\com\biiblesoft\pws\hw3\FindBusinessEntity.java

### 3.2 execute:

go to PROJECT\_HOME and use follow command to execute FindBusinessEntity.java

"C:\Program Files\Java\jdk1.6.0\_04\bin\java" -classpath "C:\Documents and Settings\Tom\.IntelliJIdea70\system\webservices\axis-1.4.0\wsdl4j-1.5.1.jar;C:\Documents and Settings\Tom\.IntelliJIdea70\system\webservices\axis-1.4.0\log4j-1.2.8.jar;C:\Documents and Settings\Tom\.IntelliJIdea70\system\webservices\axis-1.4.0\saaj.jar;C:\Documents and Settings\Tom\.IntelliJIdea70\system\webservices\axis-1.4.0\jaxrpc.jar;C:\Documents and Settings\Tom\.IntelliJIdea70\system\webservices\axis-1.4.0\commons-logging-1.0.4.jar;C:\Documents and Settings\Tom\.IntelliJIdea70\system\webservices\axis-1.4.0\commons-discovery-0.2.jar;C:\Documents and Settings\Tom\.IntelliJIdea70\system\webservices\axis-1.4.0\axis.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\charsets.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\deploy.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\javaws.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\jce.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\jsse.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\management-agent.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\plugin.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\resources.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\rt.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\ext\dnsns.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\ext\localedata.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\ext\sunjce\_provider.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\ext\sunmscapi.jar;C:\Program Files\Java\jdk1.6.0\_04\jre\lib\ext\sunpkcs11.jar;C:\IdeaProjects\PWS\_HW2\out\production\PWS\_HW2;C:\IntelliJ\_IDEA\_7.0.2\lib\javaee.jar;C:\sun\_mail;C:\sun\_mail\mail.jar;C:\activation;C:\activation\activation.jar;C:\junit4.4;C:\junit4.4\junit-4.4-src.jar;C:\junit4.4\junit-4.4.jar;C:\juddi2\_client;C:\juddi2\_client\juddi-2.0rc5.jar;C:\juddi2\_client\juddi-client-2.0rc5.jar;C:\IntelliJ\_IDEA\_7.0.2\lib\idea\_rt.jar" com.biiblesoft.pws.hw3.FindBusinessEntity

### 3.3 output

Follow table are output of FindBusinessEntity.java (formatted)

|  |
| --- |
| Name of Business found: |
| SkatesTown |
| url -> http://localhost:8080/juddi/uddiget.jsp?businesskey=5A2EA9D0-D7F1-11DC-B811-9565EF1EBB50 |
| SkatesTown |
| url -> http://localhost:8080/juddi/uddiget.jsp?businesskey=127ACC40-D7F1-11DC-B811-E0E565F9AFB2 |
| SkatesTown |
| url -> http://localhost:8080/juddi/uddiget.jsp?businesskey=B4273E80-D7DC-11DC-AD8A-F895A8E56DDB |
| SkatesTown |
| url -> http://localhost:8080/juddi/uddiget.jsp?businesskey=699B86F0-D3F9-11DC-A71E-E2123889688B |
| SkatesTown |
| url -> http://localhost:8080/juddi/uddiget.jsp?businesskey=2EAC3D00-D3EA-11DC-BD00-94A260B3E523 |
| SkatesTown |
| url -> http://localhost:8080/juddi/uddiget.jsp?businesskey=0D0FA790-D3EA-11DC-A790-A15B2B6B5F04 |
| SkatesTown |
| url -> http://localhost:8080/juddi/uddiget.jsp?businesskey=07F7A370-D3EA-11DC-A370-E9E593D3F496 |
| SkatesTown |
| url -> http://localhost:8080/juddi/uddiget.jsp?businesskey=F7F520B0-D3E9-11DC-A0B0-FEFB25DBB03D |
| SkatesTown |
| url -> http://localhost:8080/juddi/uddiget.jsp?businesskey=ED087F30-D3E9-11DC-BF30-F7214F2A11F8 |
| SkatesTown |
| url -> http://localhost:8080/juddi/uddiget.jsp?businesskey=D97C1260-D3E9-11DC-9260-D81FED3C1103 |
|  |
| done. |

## 4. Source code for finding all business entities that have name "SkatesTown”.

**Answer:**

check the source file:

*%PROJECT\_HOME% \src\com\biiblesoft\pws\hw3\FindBusinessEntityNamedSkatesTown.java*

## 5. Results of running PublishBusinessEntity.java and publishing you CalculatorService from homework 2 in the UDDI registry.

**Answer:**

### 5.1 Result of Publishing Business Entity

Follows are the output of PublishBusinessEntity.java

|  |
| --- |
| Successful get AuthToken!  AuthToken = authToken:0602E820-D7F7-11DC-B811-AE6221A292FA  Registry Successful!  Published businessEntity key: 0613B100-D7F7-11DC-B811-FDD191A23C31. |

and we can use this link to find the business we just published:

<http://localhost:8080/juddi/uddiget.jsp?businesskey=0613B100-D7F7-11DC-B811-FDD191A23C31>

### 5.2 Result of Publishing WSDL to UDDI registry

To publish a WSDL to UDDI we have to create a tModel of our Calculator Service and bind the tModel to a BusinessService

#### 5.2.1 Result of Publishing WSDL tModel

Follows are the output of *SaveCalcTModel.java*

|  |
| --- |
| save\_CalculatorService\_tModel  ------------------  userID: jdoe  password:  AuthToken: authToken:79ED1850-D810-11DC-9850-BE6818908C25  TModel Key: uuid:79FB7030-D810-11DC-B030-A69DA691C47F  done. |

#### 5.2.2 Result of Publish a business service and associated binding template above

Before we run the PublishWSDLService.java we have to copy the tModel Key which we get when we save Calculator Service as tModel to *PublishWSDLService.java.*

*And use this code to set the tModel Key:*

|  |
| --- |
| tModelInstanceInfo.setTModelKey("uuid:79FB7030-D810-11DC-B030-A69DA691C47F "); |

Follows are the output of *PublishWSDLService.java*

|  |
| --- |
| userID: jdoe  password:  AuthToken: authToken:C38306E0-D811-11DC-86E0-A168D21CE7CC  Successful Publish the following Service  Name = Calculator Service  Business Key = 4C3F8BC0-D3D5-11DC-B283-E46ED1945E25  Service Key = C393CFC0-D811-11DC-8FC0-E45591460515  Description = A Calculator Service By BiibleSoft  Binding Template:  Binding Key = C39619B0-D811-11DC-99B0-AD0F8837075E  Service Key = C393CFC0-D811-11DC-8FC0-E45591460515  Access Point = http://localhost:8080/axis/services/CalculatorService  TModel Instance Info:  TModel Key = uuid:79FB7030-D810-11DC-B030-A69DA691C47F  Instance Details:  Description = CalculatorService by BiibleSoft  Overview URL = http://localhost:8080/axis/services/CalculatorService?wsdl  done. |

And we can use this link to check the WSDL on UDDI:

<http://localhost:8080/juddi/uddiget.jsp?businesskey=4C3F8BC0-D3D5-11DC-B283-E46ED1945E25>

Screenshot:

