Consuming a Web Service in Java using NetBeans IDE

This document provides step-by-step instructions to consume a web service in Java using NetBeans IDE. In the project, we will invoke a sorting web service through its WSDL link: http://whost3.cs.rit.edu/SortServ/Service.svc?singleWsdl.

Prerequisites:

• NetBeans 8.0 IDE (Can be downloaded from here - Link)

Step 1: Create a Java Project

Open NetBeans IDE

Click on New Project and choose Java Application

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00	New Java Application		
Steps	Name and Location		
1. Choose Project 2. Name and Location	Project Name:	SortClient	
	Project Location:	/Users/liuxumin/NetBeansProjects Browse	
	Project Folder:	iers/liuxumin/NetBeansProjects/SortClient	
	Use Dedicated	Browse Different users and projects can share the same compilation libraries (see Help for details).	
	☑ Create Main C	lass sortclient.SortClient	
	Help	<pre></pre>	

Enter the Project Name: SortClient, check the option "Create Main Class", click "Finish"

Now the Project has been created.

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·	 INF0: Visiting unvisited references INF0: Loading application [SortClient] at [/SortClient] INF0: SortClient was successfully deployed in 7,991 milliseconds. INF0: Created HTTP Listener http-Listener-2 on host/port 0.0.0.0:8181 INF0: Grizzly Framework 2.3.1 started in: 2ms - bound to [/0.0.0.0:8,181] INF0: Domain Pinged: release.glassfish.org 	
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Step 2: Generate a Web Service Client

Now go to the Project Tree Structure on the left side of the window.

Right click on Project and select New and then choose Web Service Client



Specify the WSDL URL as: <u>http://vhost3.cs.rit.edu/SortServ/Service.svc?singleWsdl</u> Click "Finish"

$\Theta \cap \Theta$		New Web Service Client	
Steps	WSDL and Client Lo	ocation	
1. Choose File Type	Specify the WSDL file of the Web Service.		
Location	O Project:		Browse
	O Local File:		Browse
	• WSDL URL:	http://vhost3.cs.rit.edu/SortServ/Service.svc?singleWsdl	
	O IDE Registered:		Browse
	Specify a package n	ame where the client java artifacts will be generated:	
	Project:	SortClient	
	Package:		•
	Generate Dispat	ich code	
		Help < Back Next > Finish	Cancel

Step 3: Invoke the Service

Expand the Web Service References until you see the operation lists. Drag the operation you want to invoke to the source code window, such as "GetKey". A piece of code is automatically generated to invoke that operation.



Drag MergeSort to the source code window and the corresponding code is automatically generated, too.



In the main function, add the code to call the two functions: getKey() and mergeSort(); As it is a call to a remote service, RemoteException needs to be listed in the throws cause.



You can also manually generate code like:

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4		* and open the template in the editor.				
6		nackage sortclient:				
7		import java.rmi.RemoteException:				
8		import juvur mirtemotelxception,				
9		/**				
10	Т	*				
11		* @author liuxumin				
12	L	*/				
13	r i	<pre>public class SortClient {</pre>				
14						
15	曱	/**				
16		* @param args the command line arguments				
17	L	*/				
8	曱	<pre>public static void main(String[] args) throws RemoteException{</pre>				
19		// TODO code application logic here				
20		org.tempuri.Service service = new org.tempuri.Service();				
21		String key-part actKey():				
22		String result-port mergeSort("12 22 45 24 11 5 6" key);				
23		System out println(result):				
25		}				
26						
27						
28						
9	L	}				
30						

Step 4: Run the project

Now run the project and you will get the sorting result.

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	created dir: /users/liuxumin/NetBeansProjects/SortClient/build/generated-sources/ap-source-output	
8 6 6	Copying 2 files to /Users/liuxumin/NetBeansProjects/SortClient/build/classes	
	compile:	
	5 6 11 12 23 34 45	
	BUILD SUCCESSFUL (total time: 1 second)	