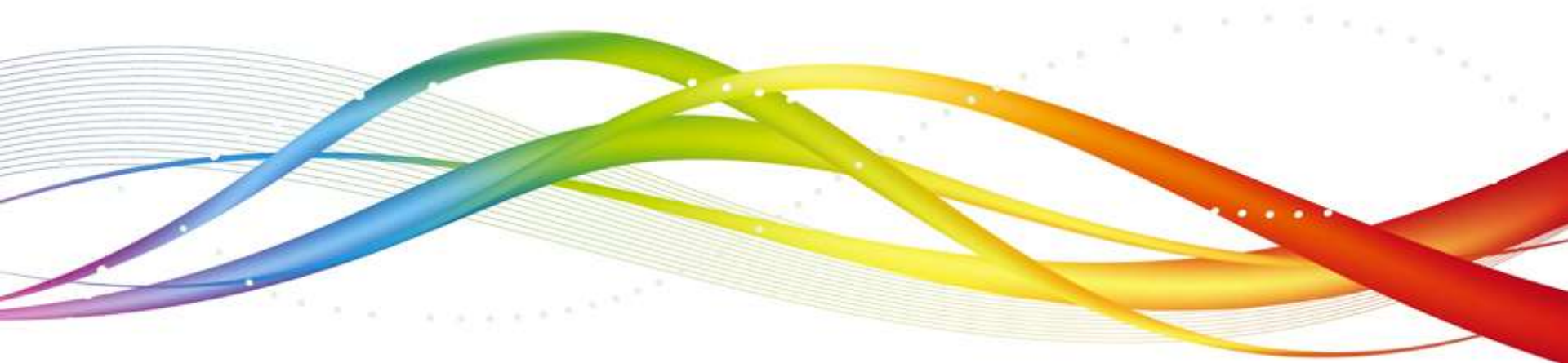




# Web Service-An Example



# Create and Deploying WebServices & Clients



# Implement and Deploy web service

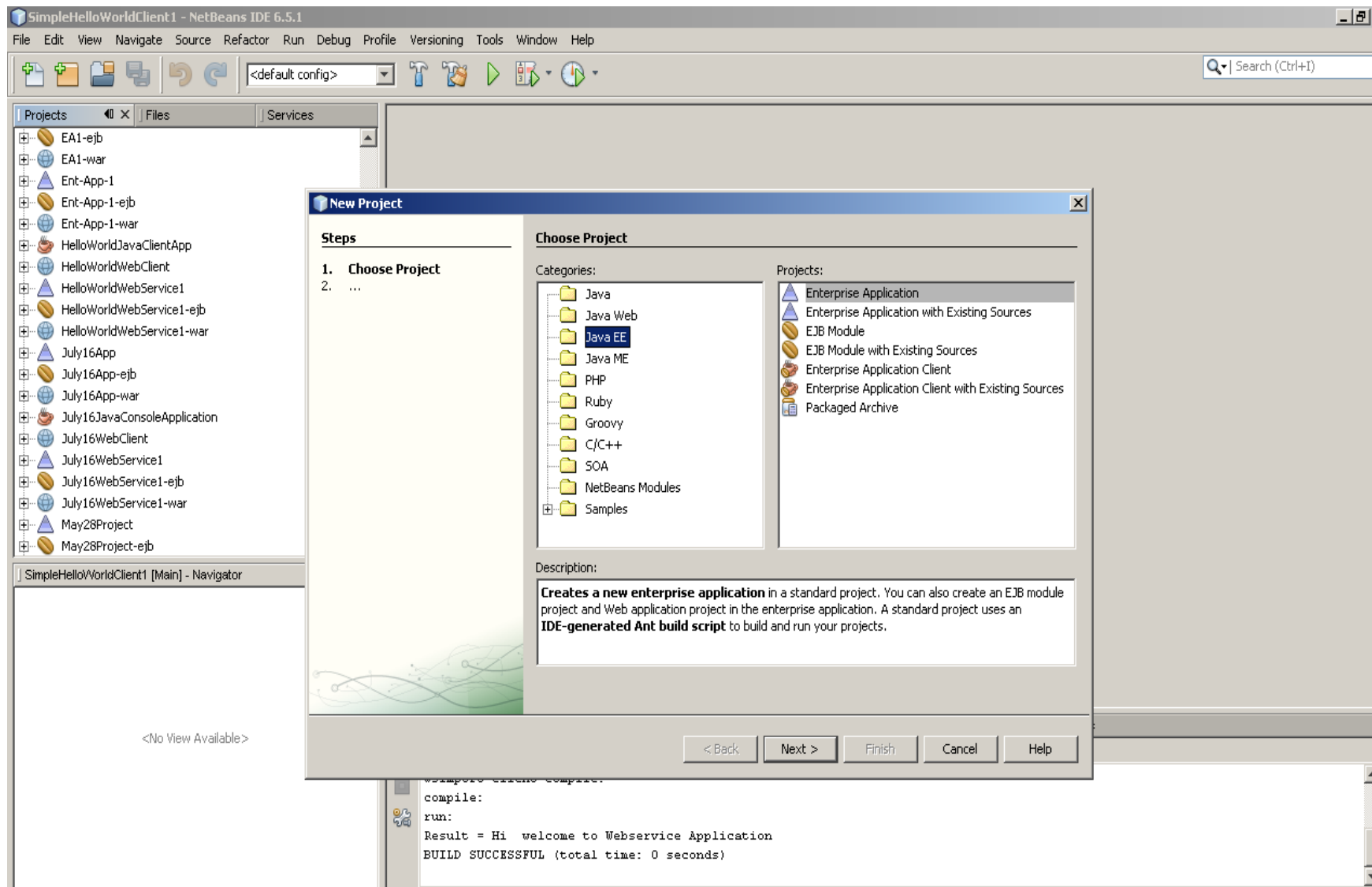
---

## Lab Setup

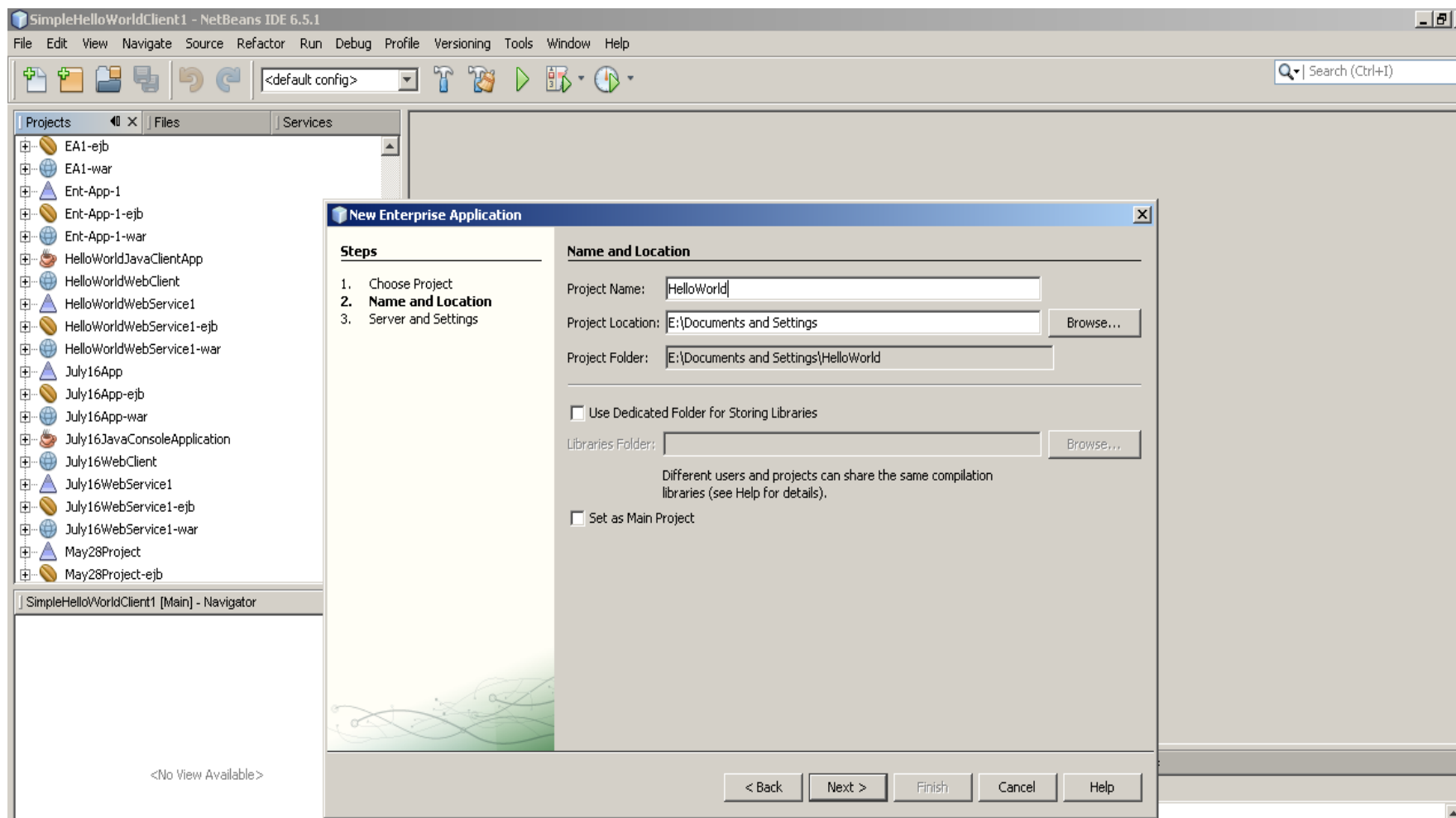
Install the following software :

- JDK 1.5
- NetBeans 6.1 or above
- Server : GlashFish (complete installation of netbeans 6.1 and above includes GlashFish)

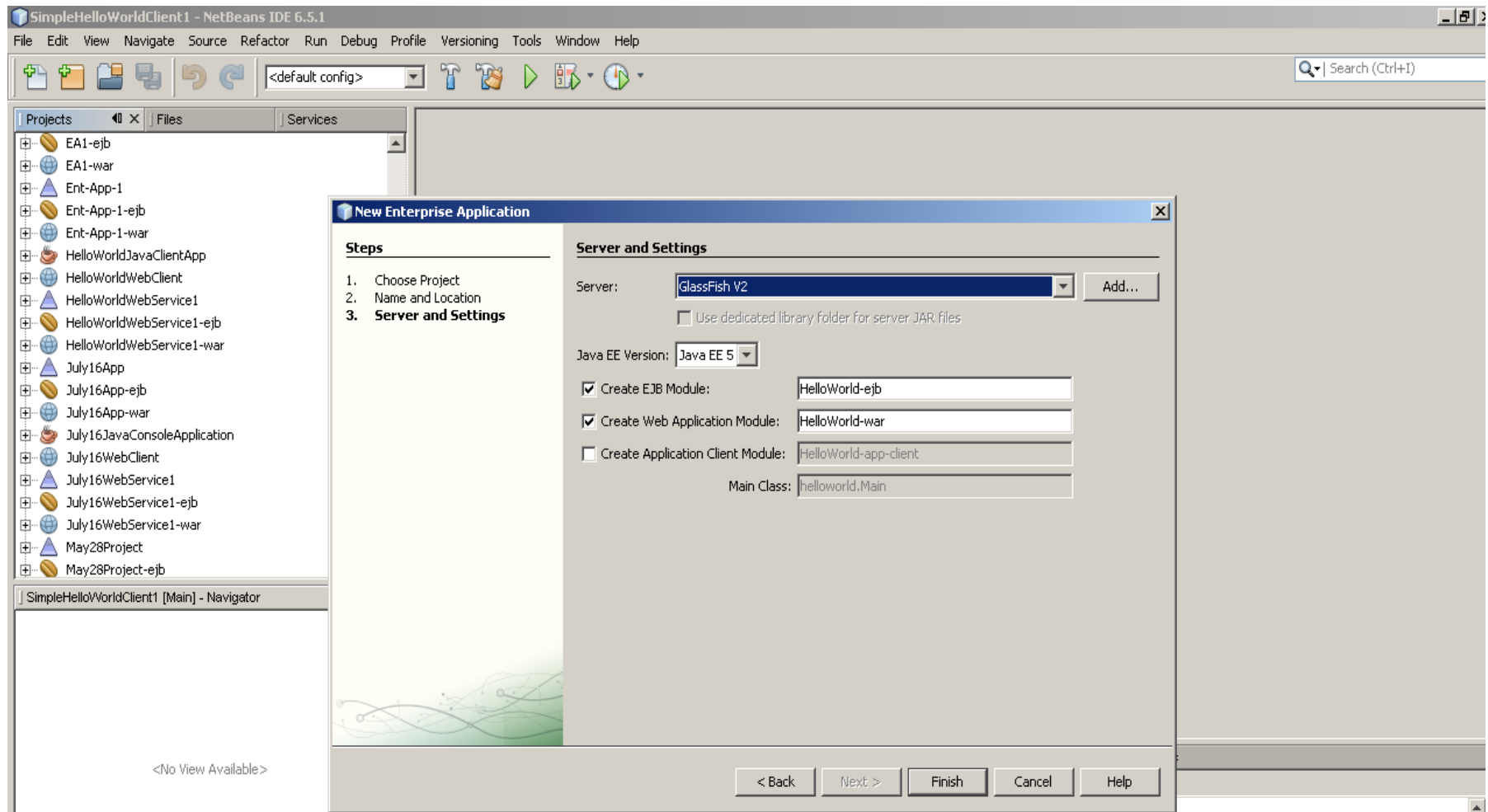
# Implement and Deploy web service (Contd.).



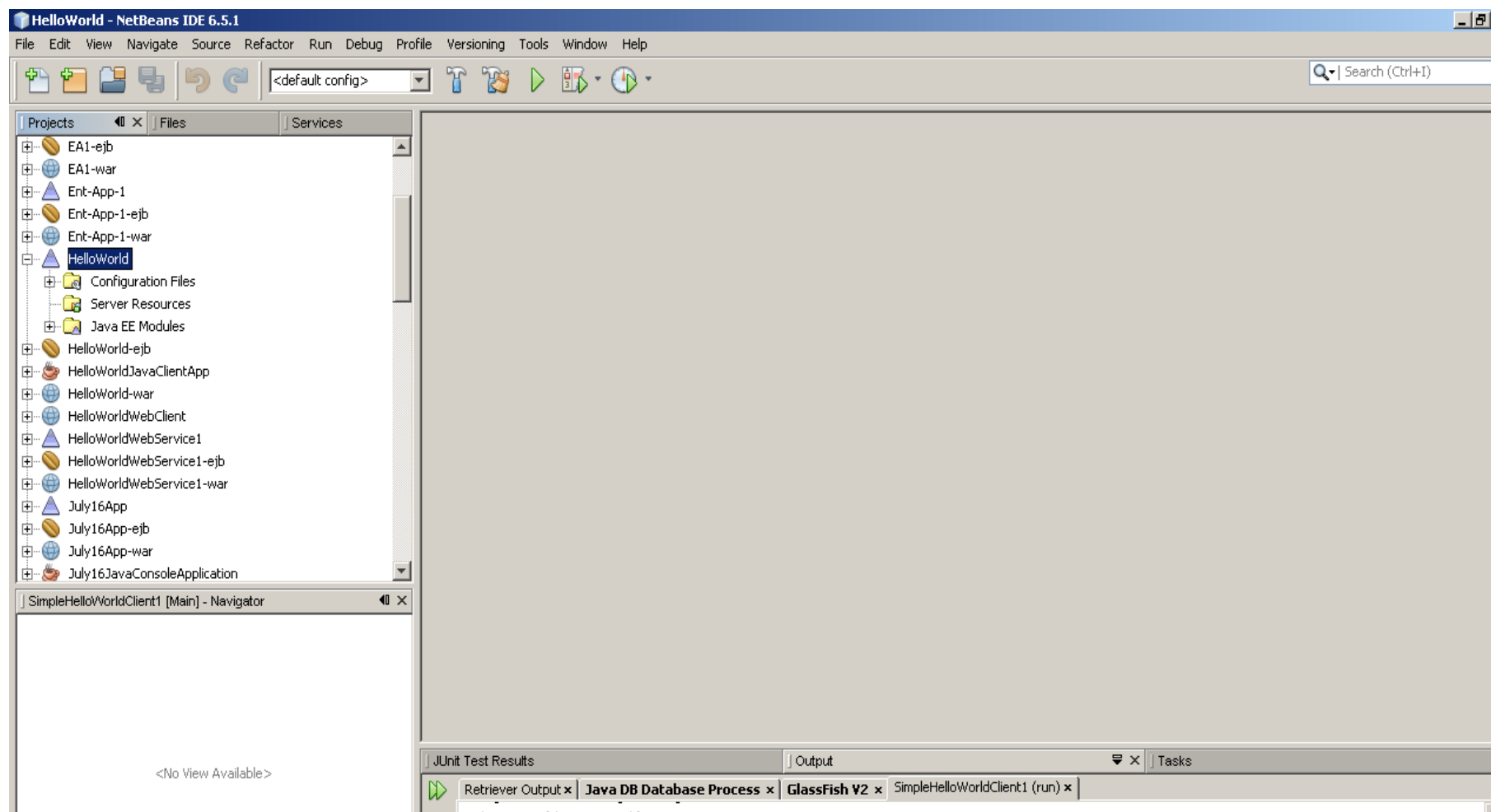
# Implement and Deploy web service (Contd.).



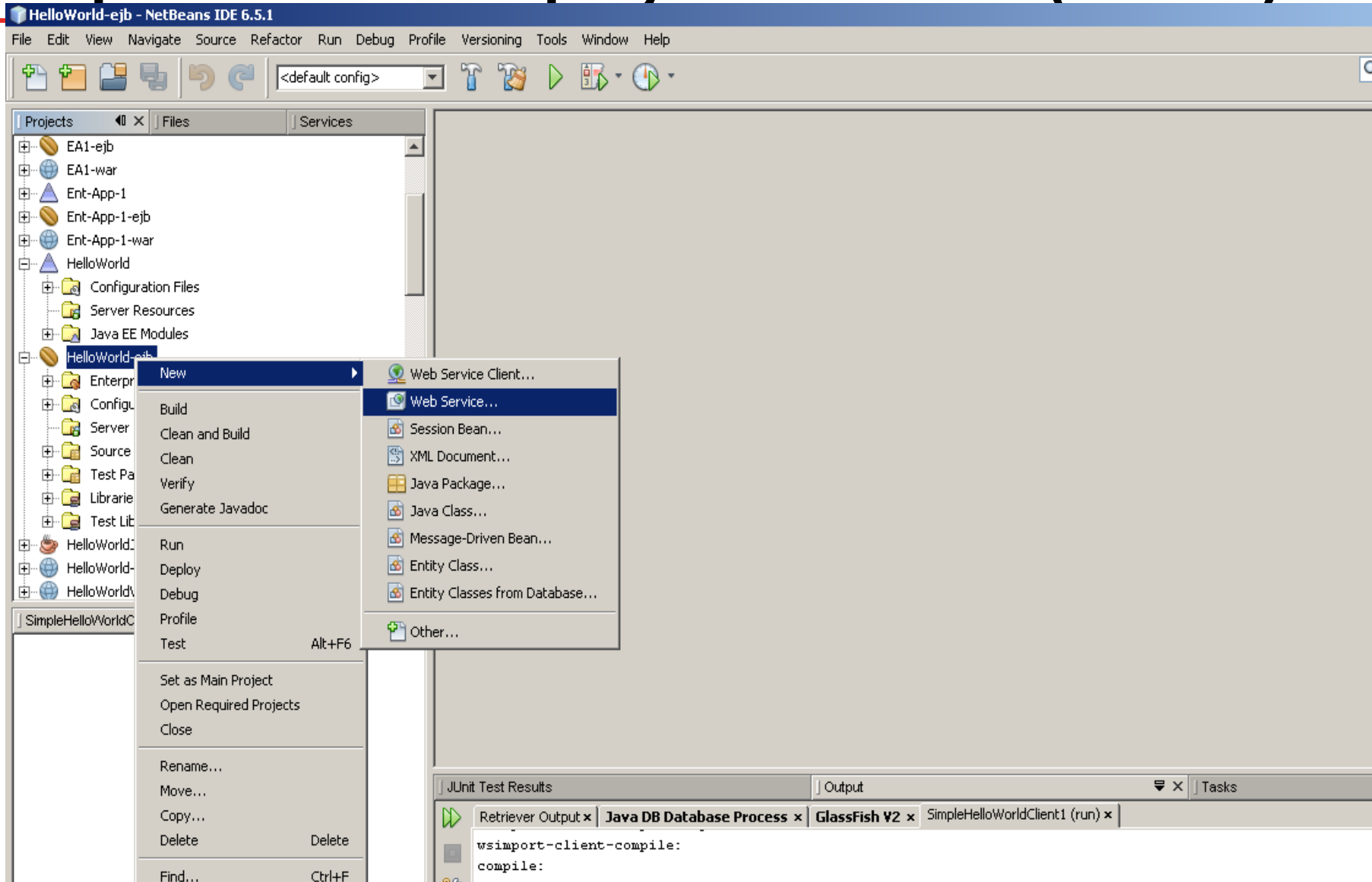
# Implement and Deploy web service (Contd.).



# Implement and Deploy web service (Contd.).

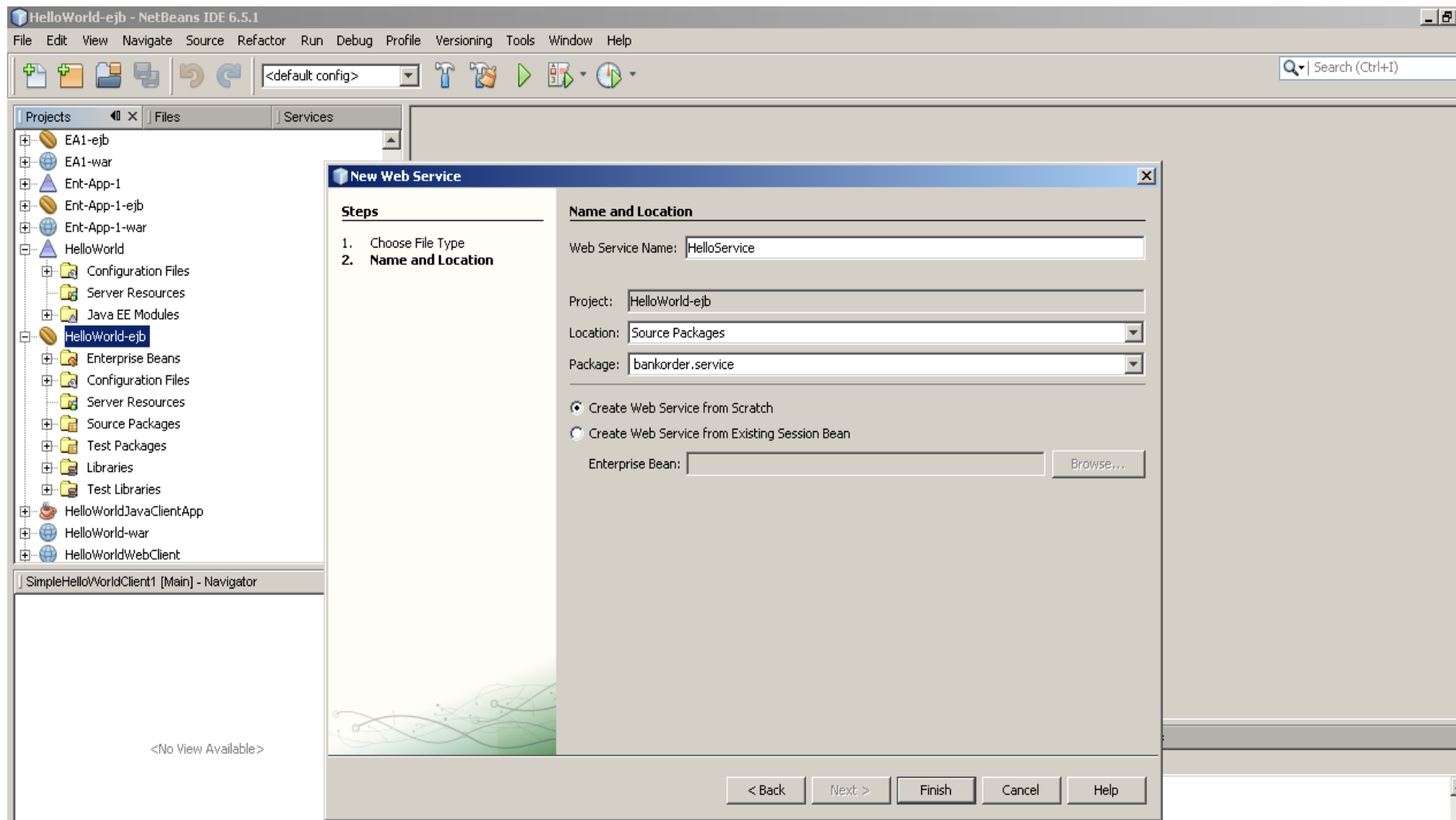


# Implement and Deploy web service (Contd.).

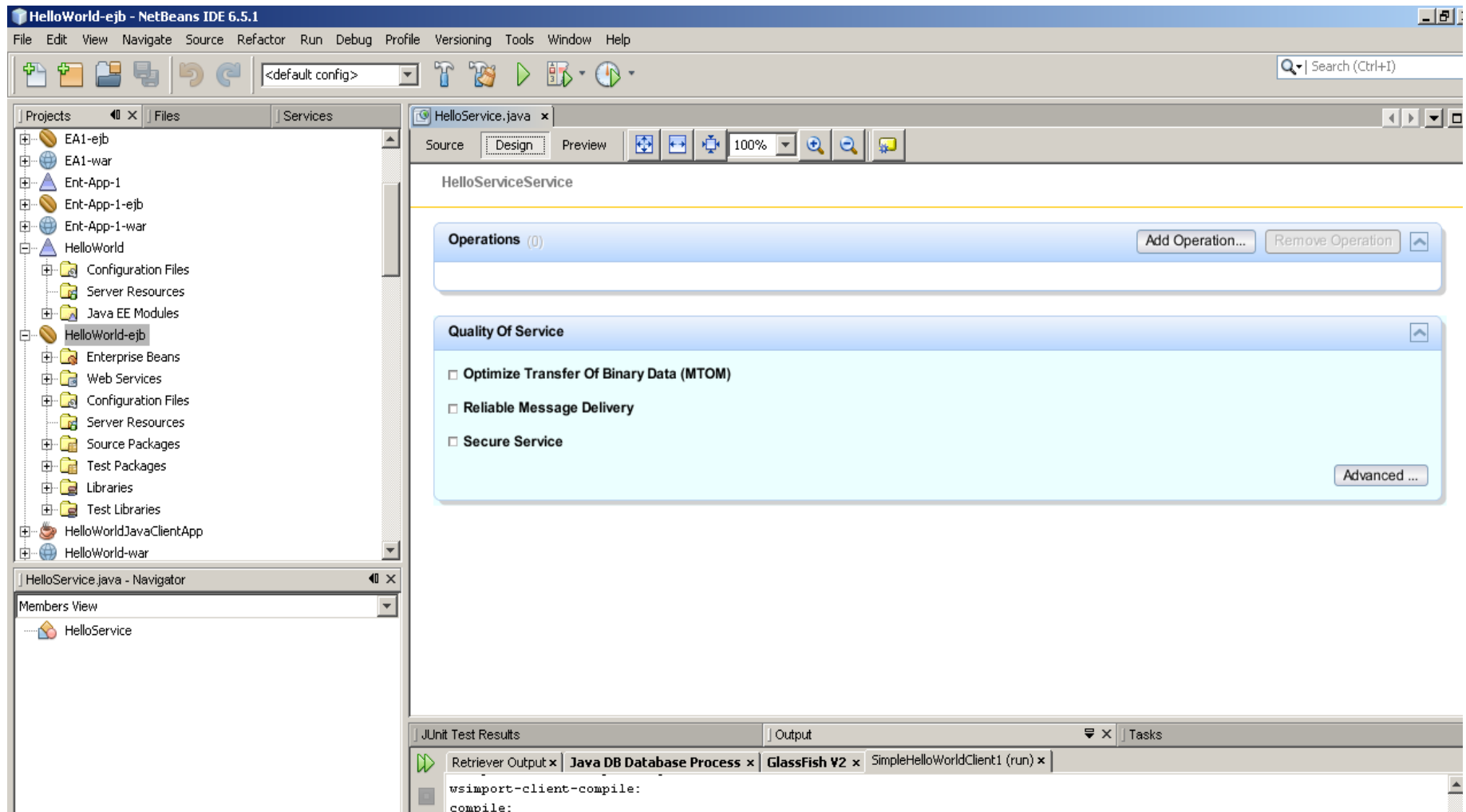




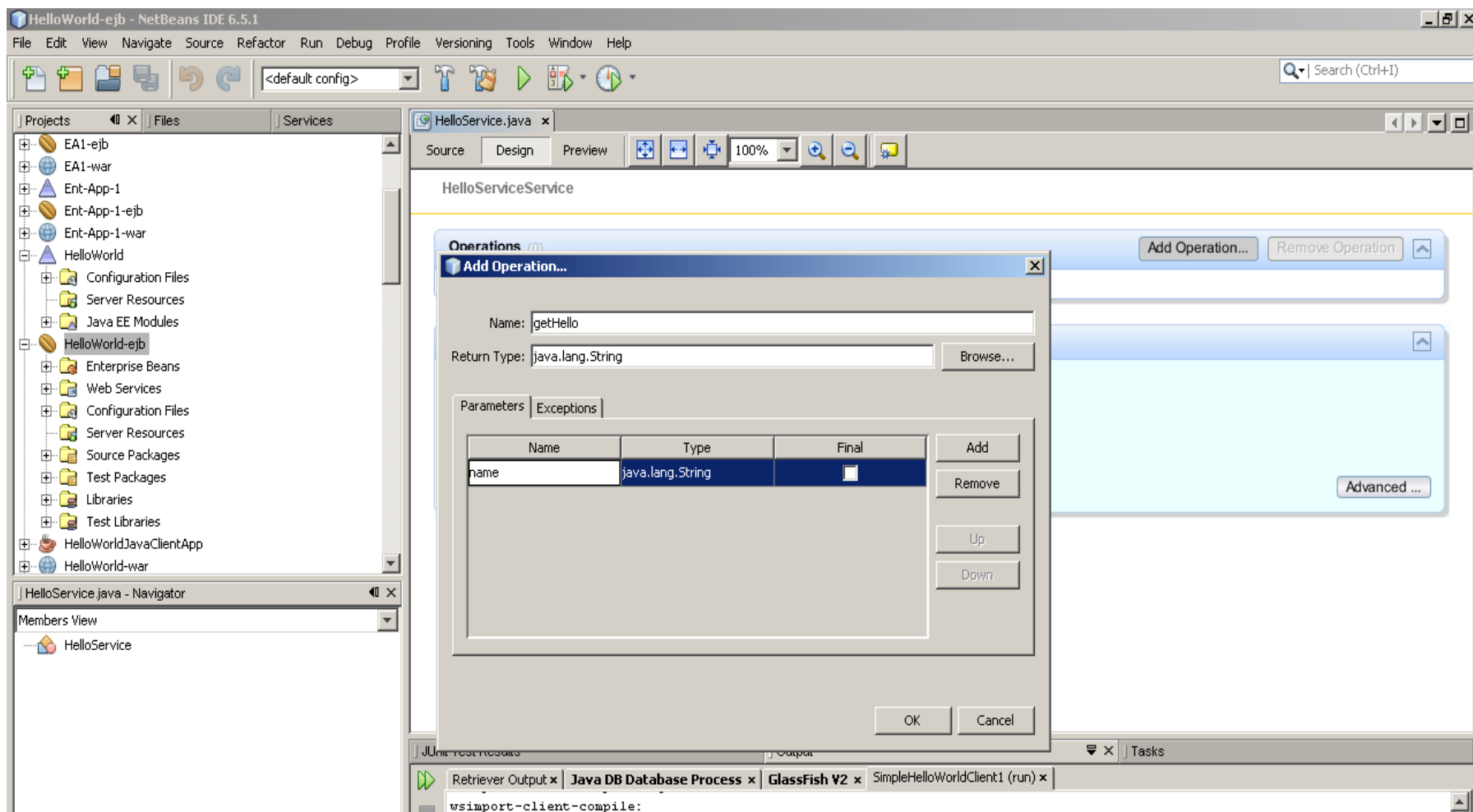
# Implement and Deploy web service (Contd.).



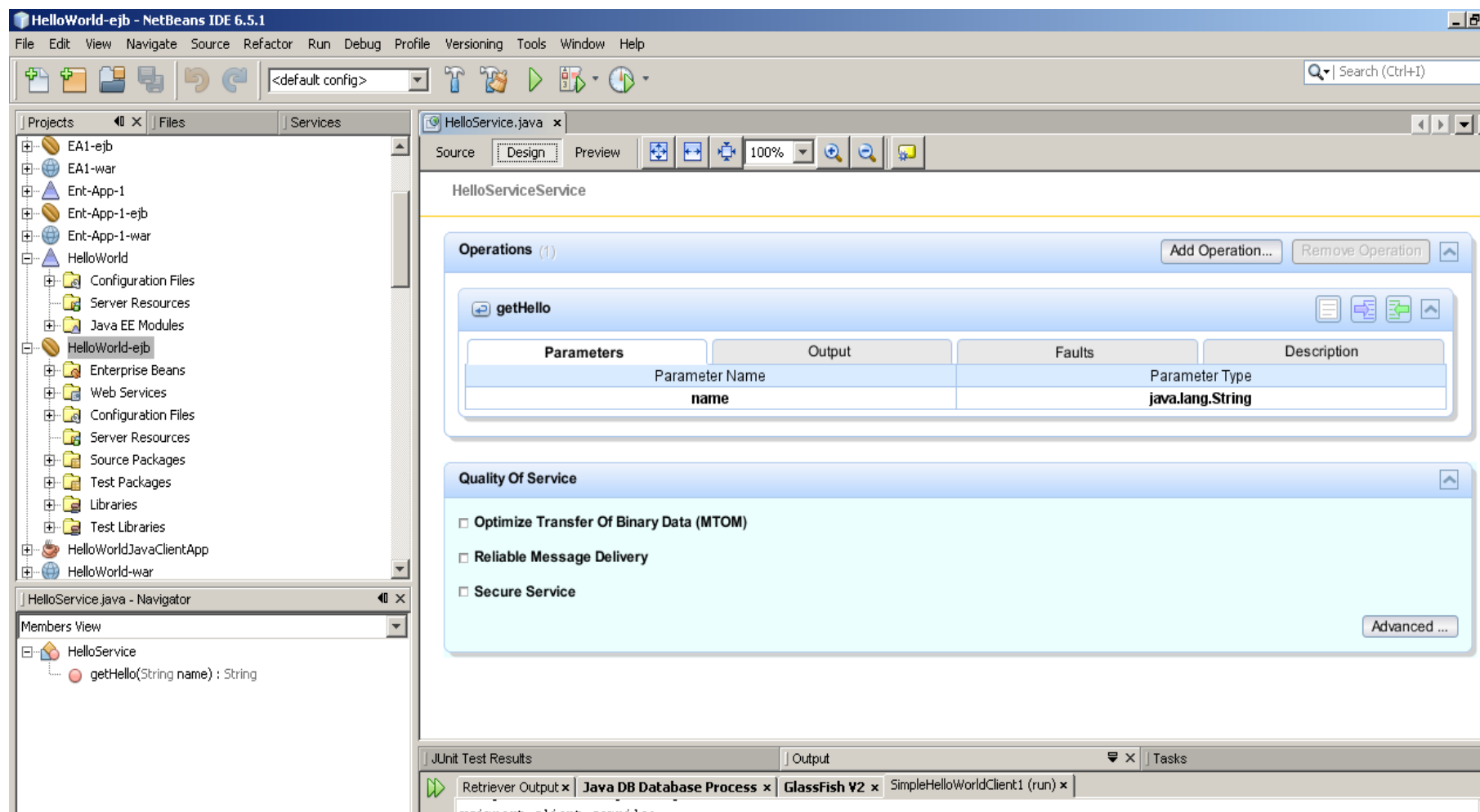
# Implement and Deploy web service (Contd.).



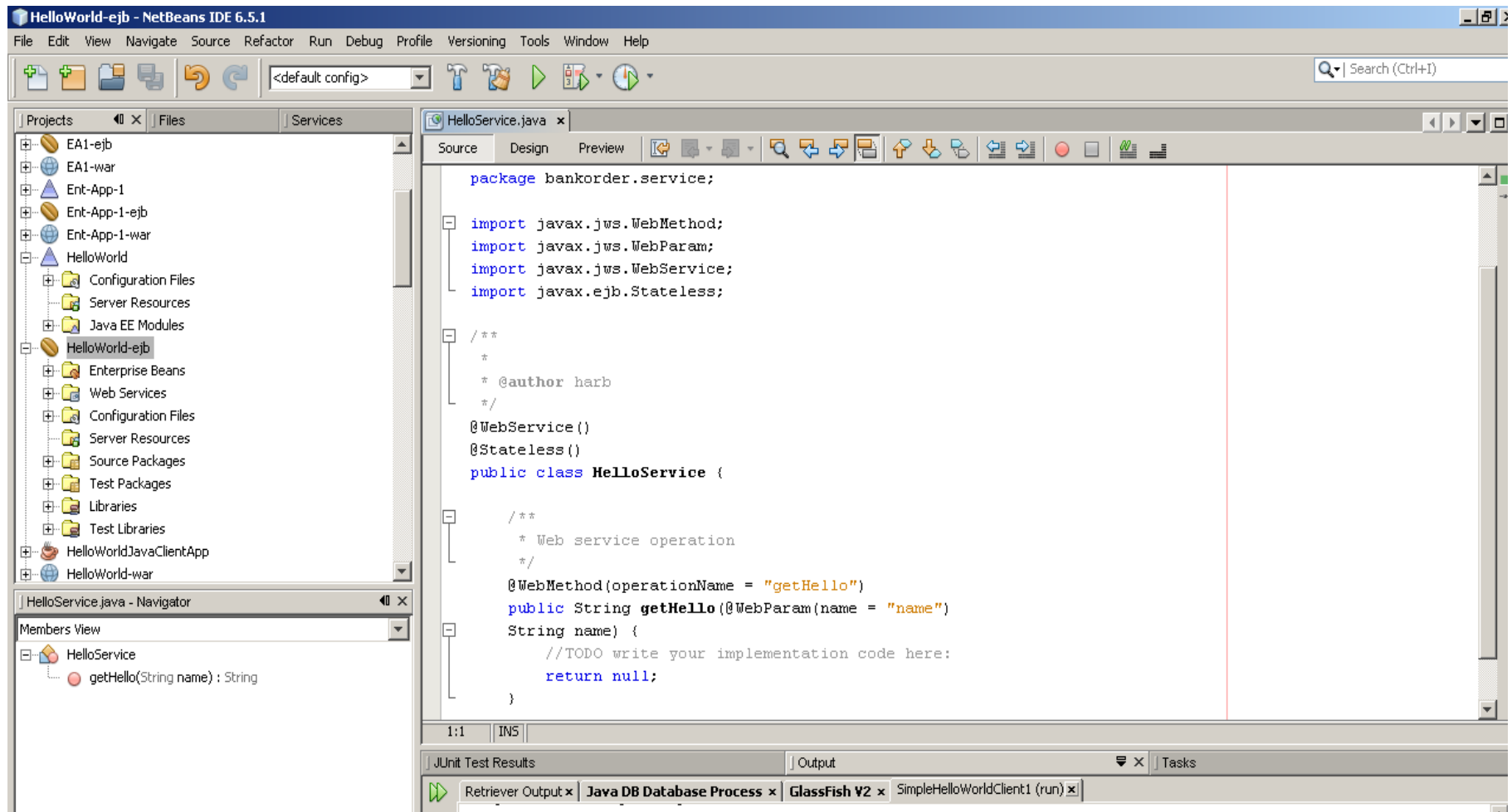
# Implement and Deploy web service (Contd.).



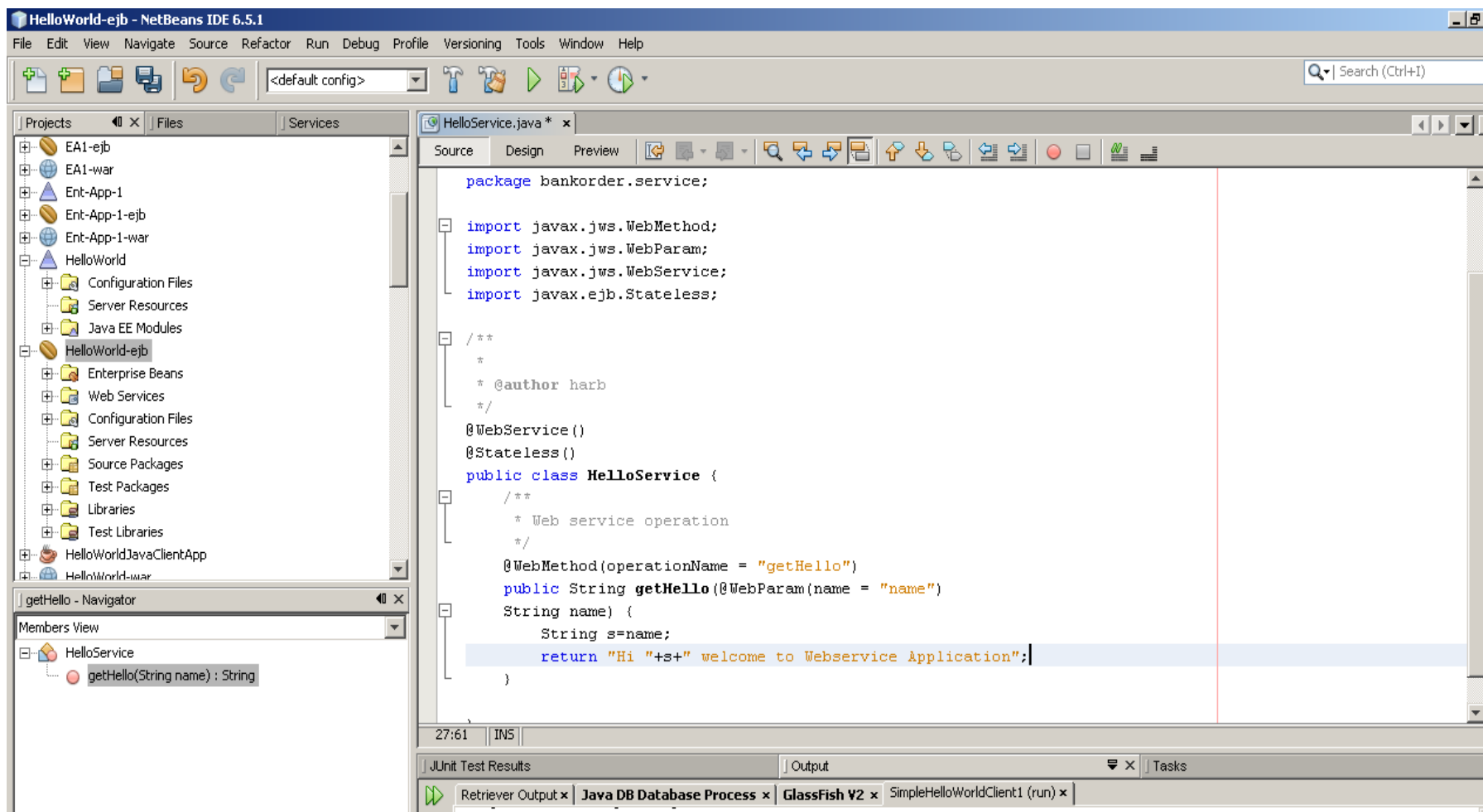
# Implement and Deploy web service (Contd.).



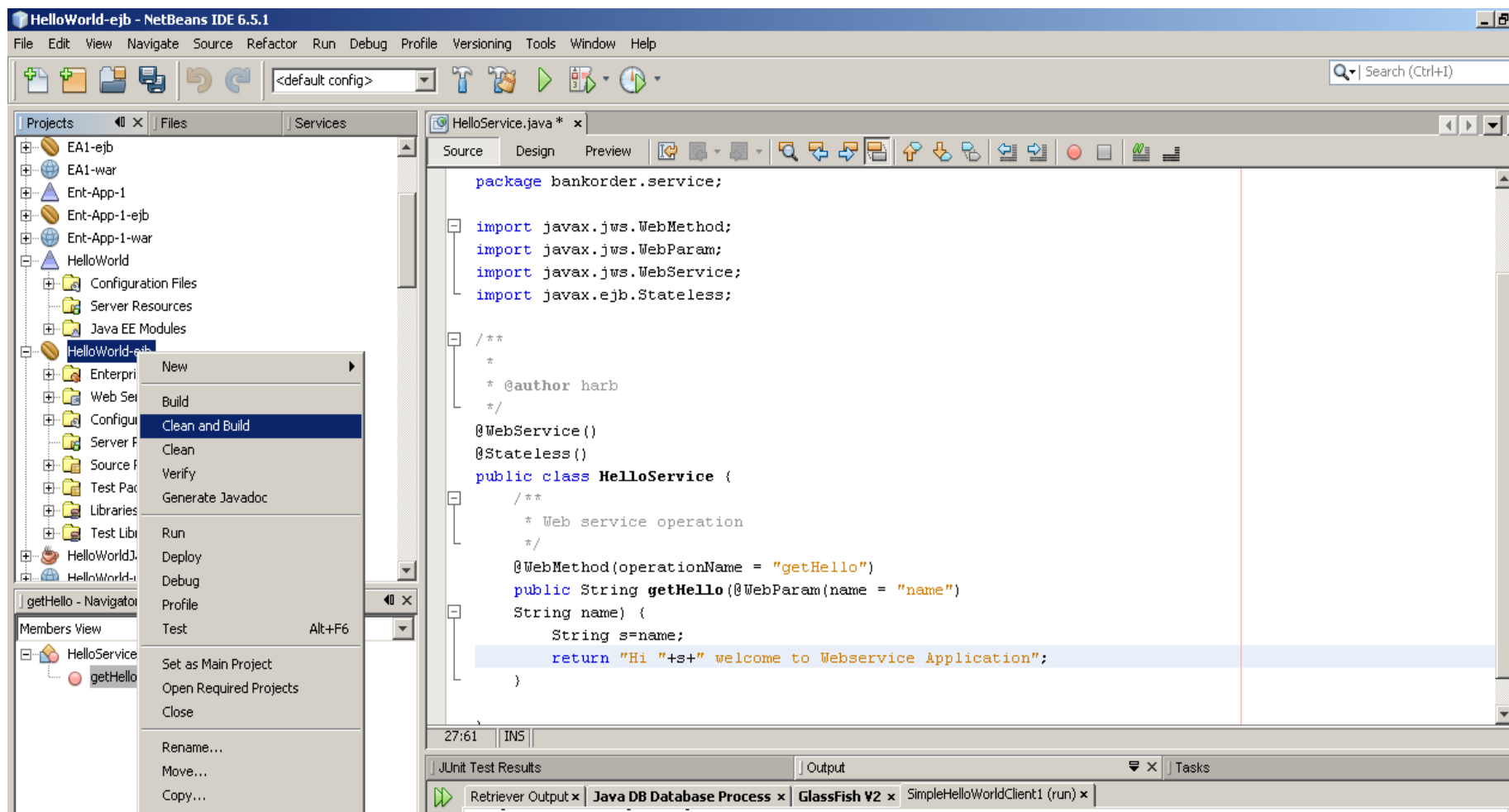
# Implement and Deploy web service (Contd.).



# Implement and Deploy web service (Contd.).



# Implement and Deploy web service (Contd.).



# Implement and Deploy web service (Contd.).

The screenshot displays the NetBeans IDE 6.5.1 interface. The main editor window shows the `HelloService.java` file with the following code:

```
package bankorder.service;

import javax.ws.rs.WebMethod;
import javax.ws.rs.WebParam;
import javax.ws.rs.WebService;
import javax.ejb.Stateless;

/**
 * @author harb
 */
@WebService()
@Stateless()
public class HelloService {

    /**
     * Web service operation
     */
    @WebMethod(operationName = "getHello")
    public String getHello(@WebParam(name = "name")
        String name) {
        String s=name;
        return "Hi "+s+" welcome to Webservice Application";
    }
}
```

The left sidebar shows the project structure with `HelloWorld-ejb` selected. A context menu is open over `HelloWorld-ejb`, with the `Deploy` option highlighted. The bottom status bar indicates "Finished building HelloWorld-ejb (clean,dist)". The bottom right pane shows the output of the deployment process:

```
library-inclusion-in-archive:
Created dir: E:\Documents and Settings\HelloWorld\HelloWorld-ejb\dist
Building jar: E:\Documents and Settings\HelloWorld\HelloWorld-ejb\dist\HelloWorld-ejb.jar
dist:
BUILD SUCCESSFUL (total time: 1 second)
```



# Implement and Deploy web service (Contd.).

The screenshot displays the NetBeans IDE 6.5.1 interface. On the left, the 'Projects' pane shows a project named 'HelloWorld' with a sub-project 'HelloService'. A context menu is open over 'HelloService', with 'Test Web Service' selected. The main editor window shows the 'HelloService.java' file with the following code:

```
package bankorder.service;

import javax.ws.rs.WebMethod;
import javax.ws.rs.WebParam;
import javax.ws.rs.WebService;
import javax.ejb.Stateless;

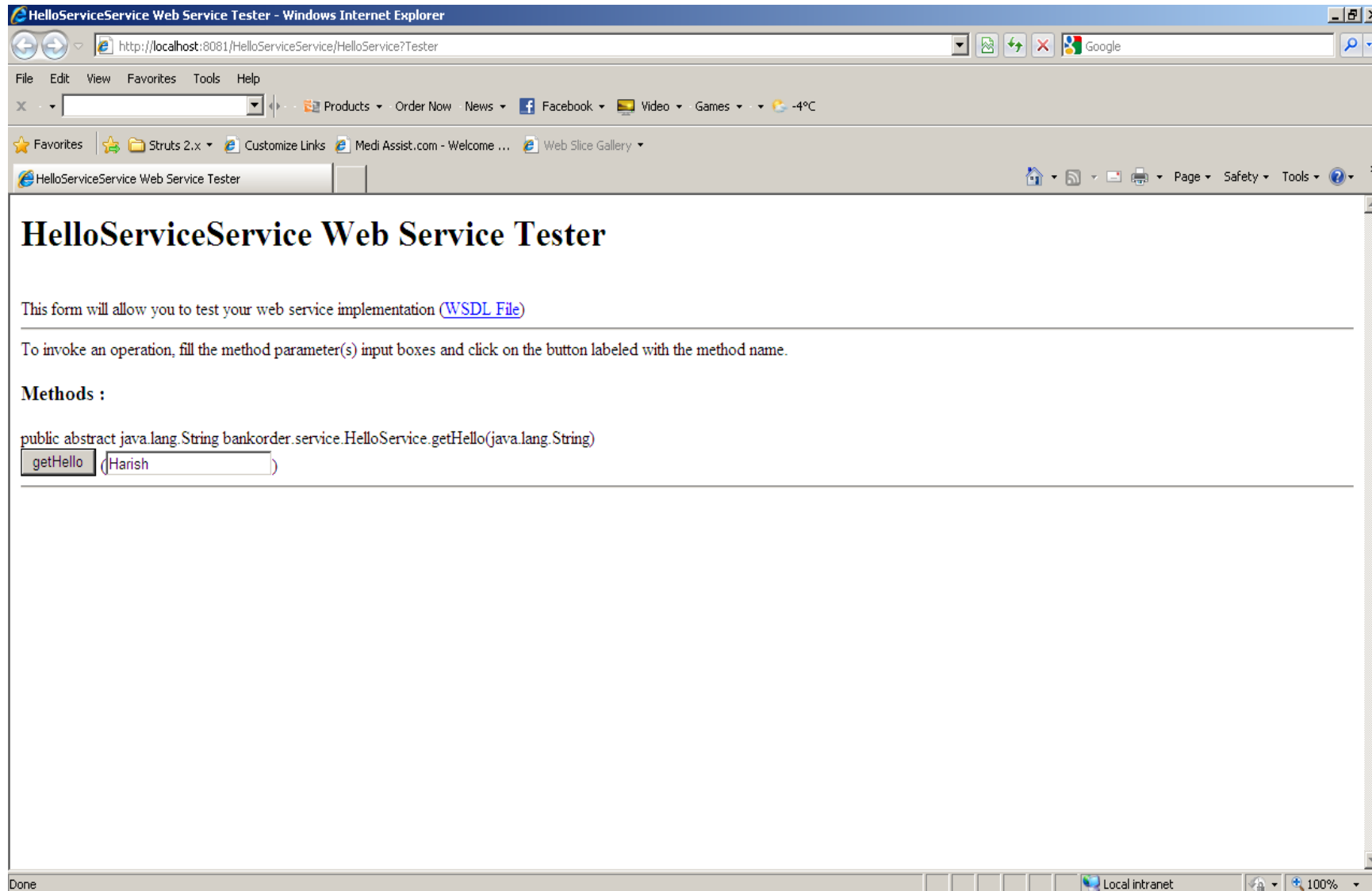
/**
 *
 * @author harb
 */
@WebService()
@Stateless()
public class HelloService {

    /**
     * Web service operation
     */
    @WebMethod(operationName = "getHello")
    public String getHello(@WebParam(name = "name")
        String name) {
        String s=name;
        return "Hi "+s+" welcome to Webservice Application";
    }
}
```

At the bottom, the 'Output' window shows the following log messages:

```
Retriever Output x Java DB Database Process x GlassFish V2 x HelloWorld-ejb (run) x
All operations completed successfully
post-run-deploy:
run-deploy:
run:
BUILD SUCCESSFUL (total time: 2 seconds)
```

# Implement and Deploy web service (Contd.).



# Implement and Deploy web service (Contd.).

Method invocation trace - Windows Internet Explorer

http://localhost:8081/HelloServiceService/HelloService?Tester

File Edit View Favorites Tools Help

Products Order Now News Facebook Video Games -4°C

Favorites Struts 2.x Customize Links Medi Assist.com - Welcome ... Web Slice Gallery

Method invocation trace

## getHello Method invocation

---

### Method parameter(s)

Type	Value
java.lang.String	Harish

---

### Method returned

java.lang.String : **Hi Harish welcome to Webservice Application**

---

### SOAP Request

```
<?xml version="1.0" encoding="UTF-8"?>
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
  <S:Header/>
  <S:Body>
    <ns2:getHello xmlns:ns2="http://service.bankorder/">
      <name>Harish</name>
    </ns2:getHello>
  </S:Body>
</S:Envelope>
```

# Implement and Deploy web service (Contd.).

The screenshot shows a Windows Internet Explorer window titled "Method invocation trace - Windows Internet Explorer". The address bar displays "http://localhost:8081/HelloServiceService/HelloService?Tester". The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The toolbar shows various icons for navigation and search. The main content area displays the following text:

java.lang.String : "Hi Harish welcome to Webservice Application"

**SOAP Request**

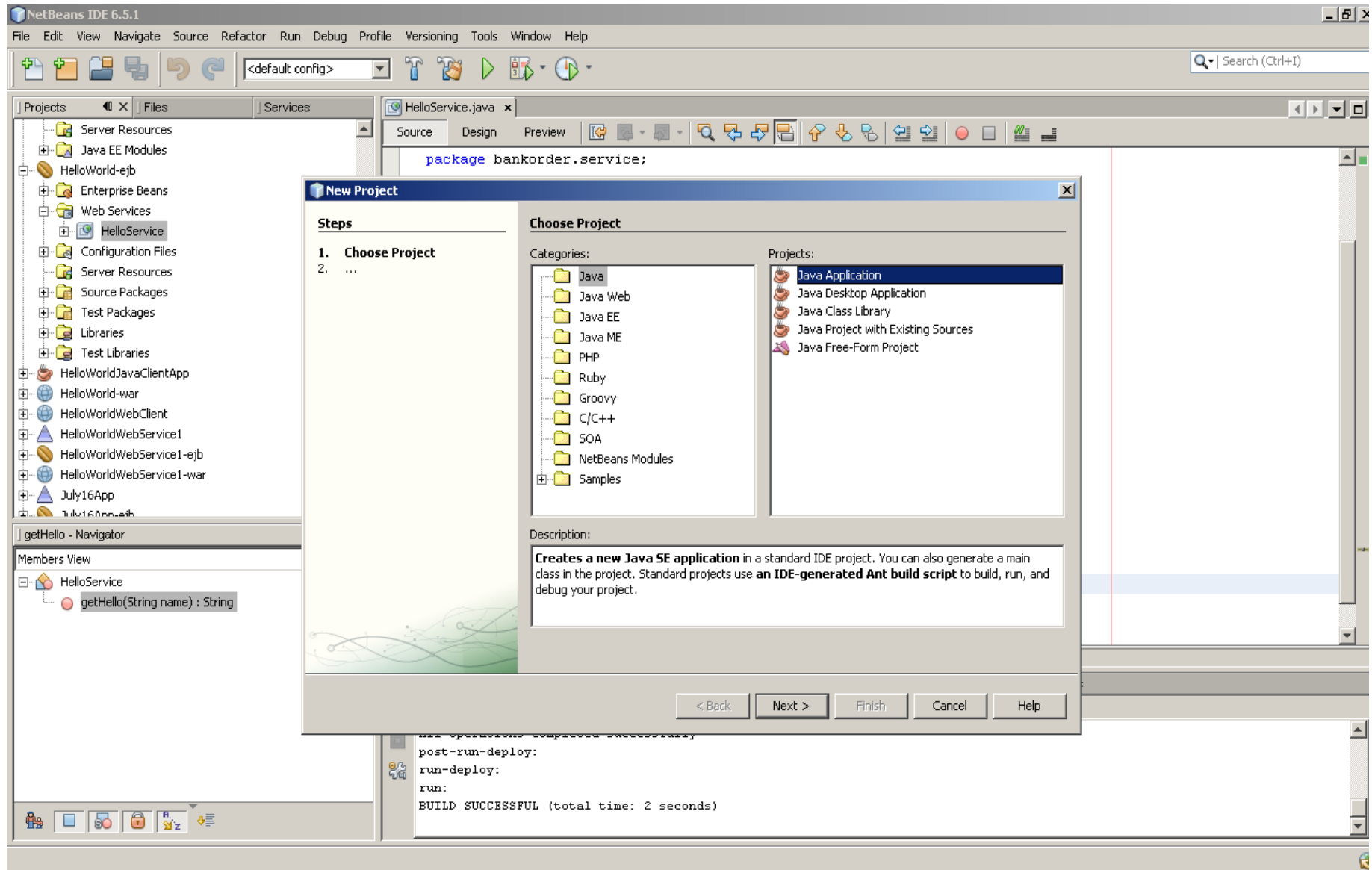
```
<?xml version="1.0" encoding="UTF-8"?>
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
  <S:Header/>
  <S:Body>
    <ns2:getHello xmlns:ns2="http://service.bankorder/">
      <Name>Harish</Name>
    </ns2:getHello>
  </S:Body>
</S:Envelope>
```

**SOAP Response**

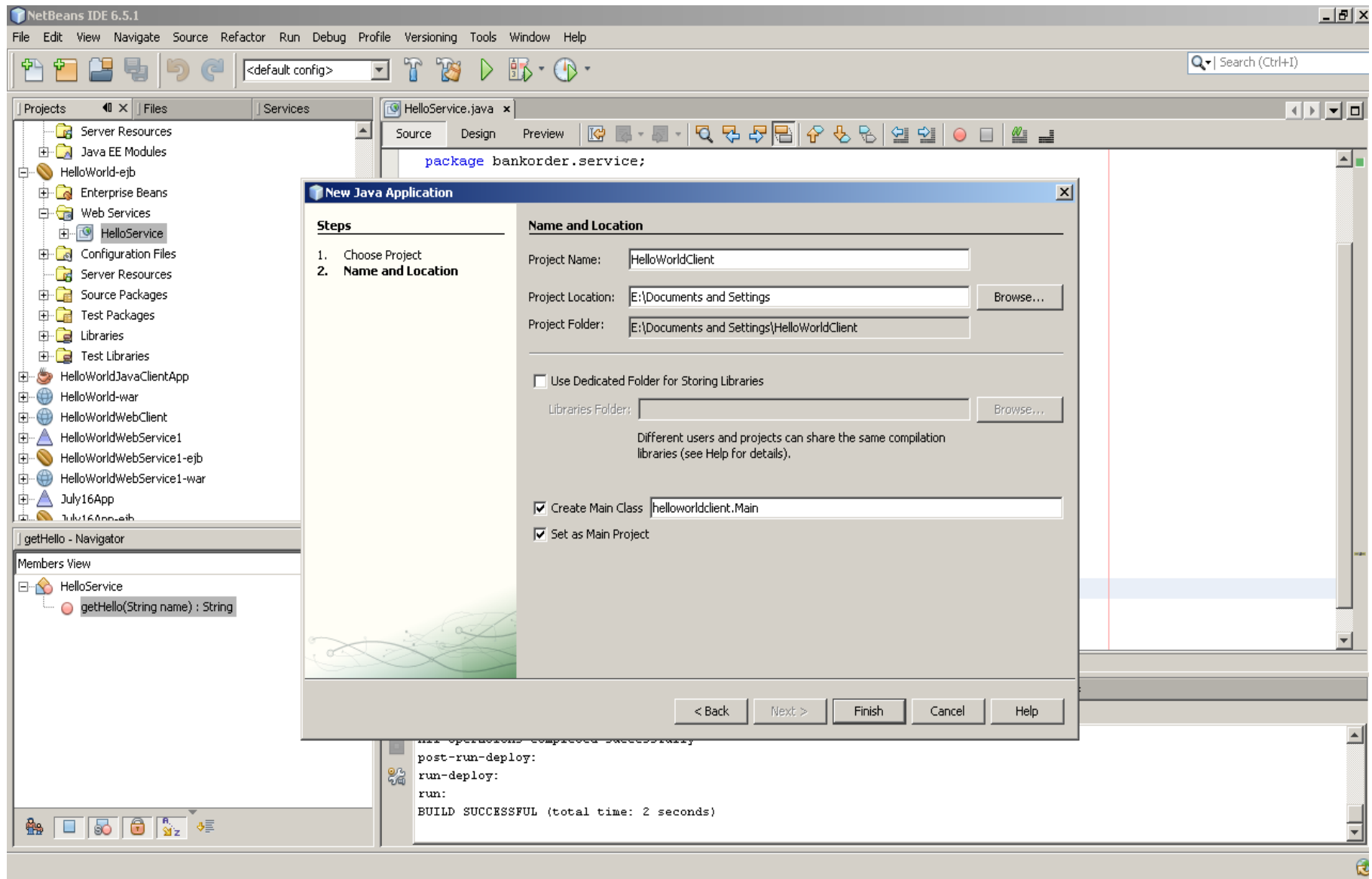
```
<?xml version="1.0" encoding="UTF-8"?>
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
  <S:Body>
    <ns2:getHelloResponse xmlns:ns2="http://service.bankorder/">
      <return>Hi Harish welcome to Webservice Application</return>
    </ns2:getHelloResponse>
  </S:Body>
</S:Envelope>
```

The bottom of the window shows the Windows taskbar with the Start button, several open applications (Microsoft PowerPoint, Microsoft Office Word, client, NetBeans IDE 6.9.1, FreeCell Game #2...), and the System tray displaying the Local intranet, 100% zoom, and the time 7:51 PM.

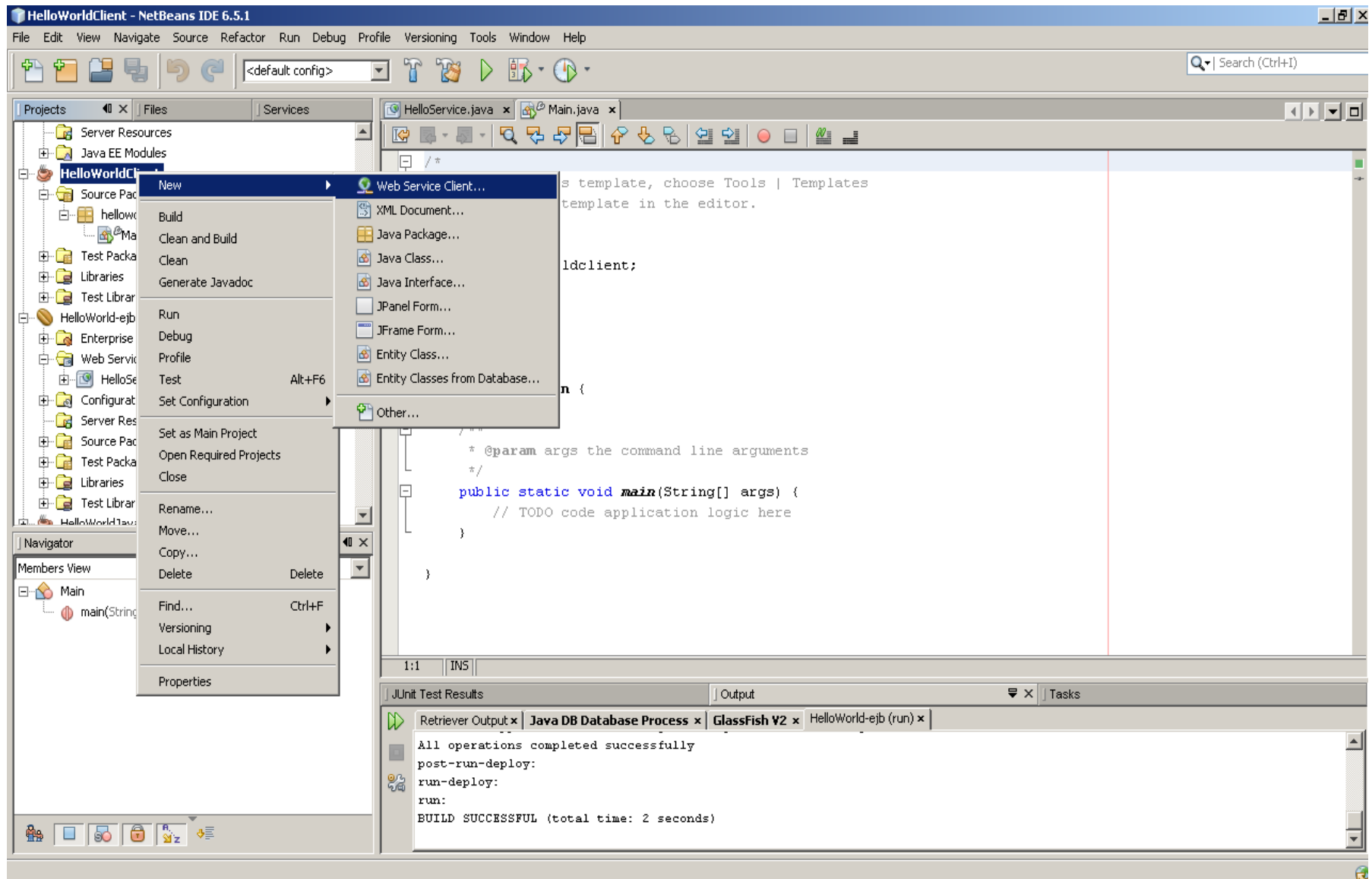
# Implement and Deploy web service (Contd.).



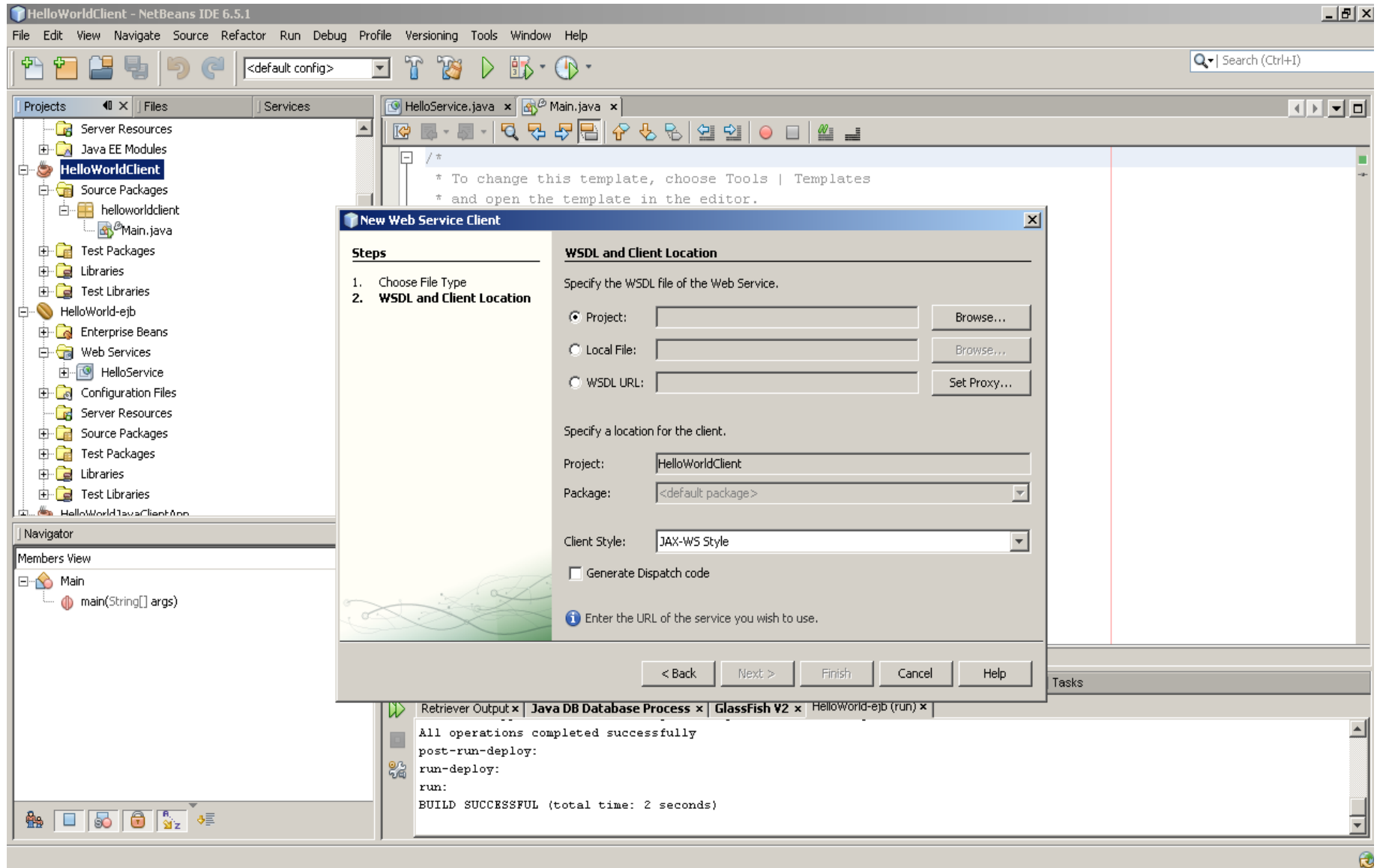
# Implement and Deploy web service (Contd.).



# Implement and Deploy web service (Contd.).

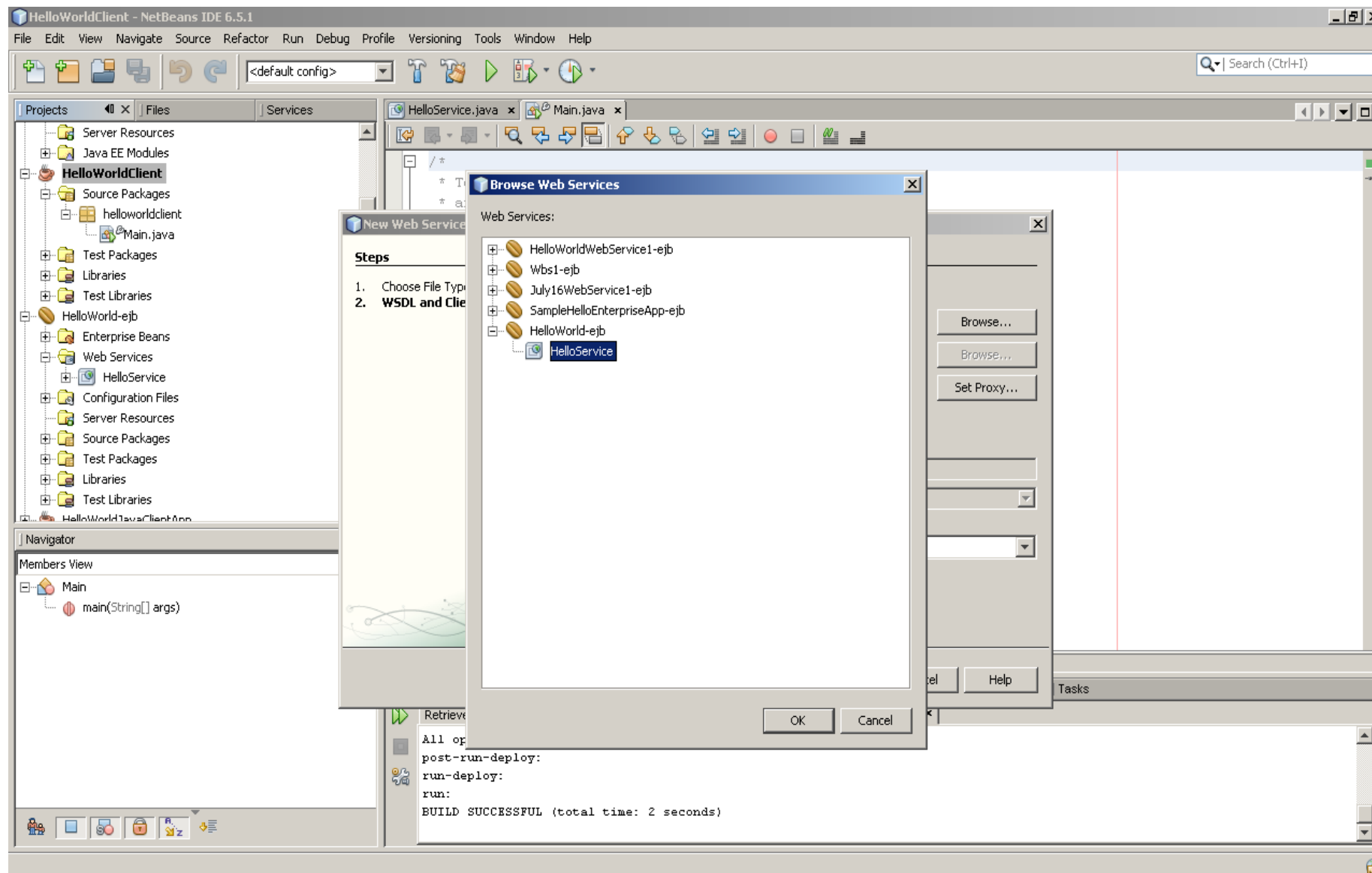


# Implement and Deploy web service (Contd.).

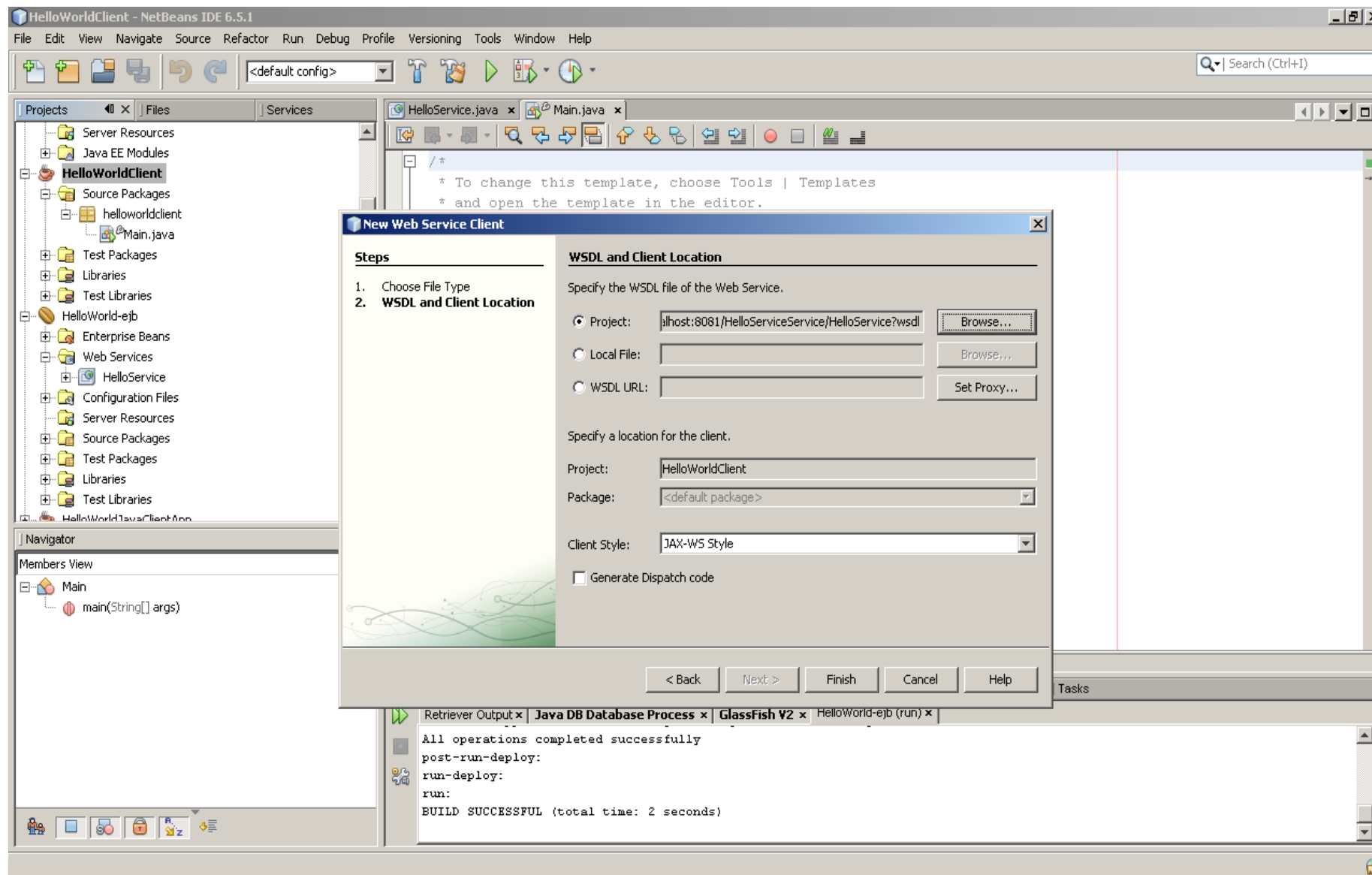




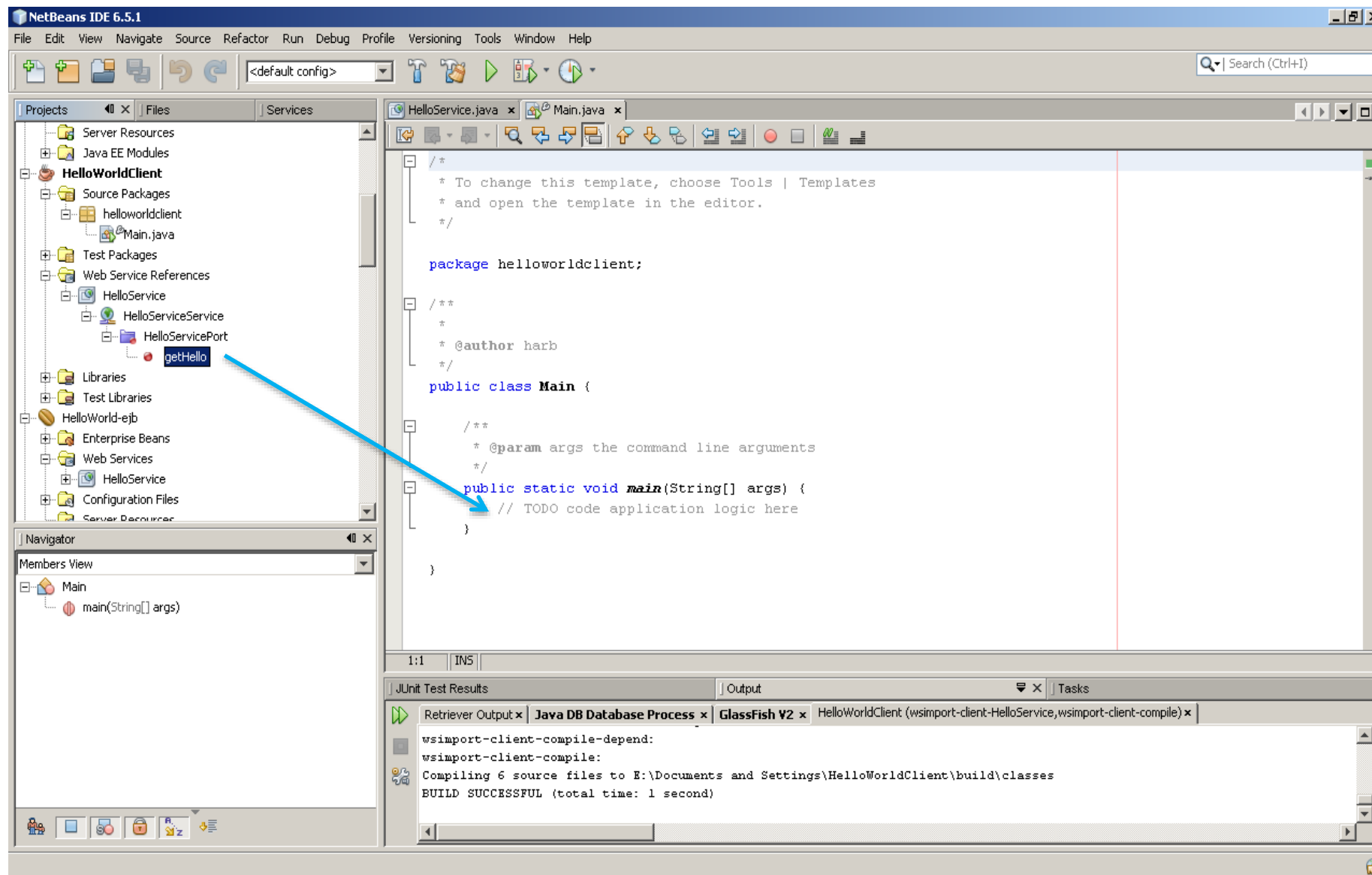
# Implement and Deploy web service (Contd.).



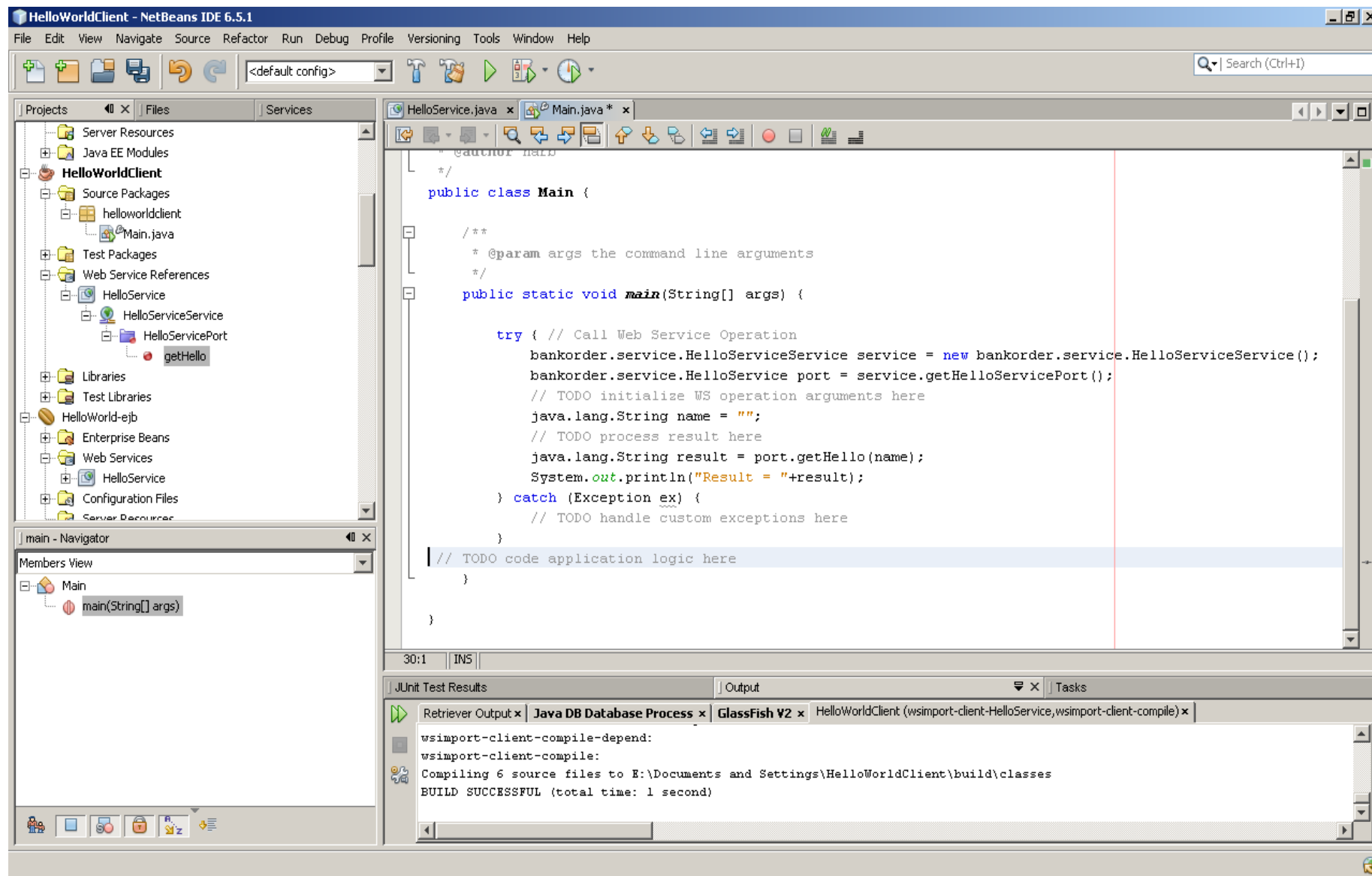
# Implement and Deploy web service (Contd.).



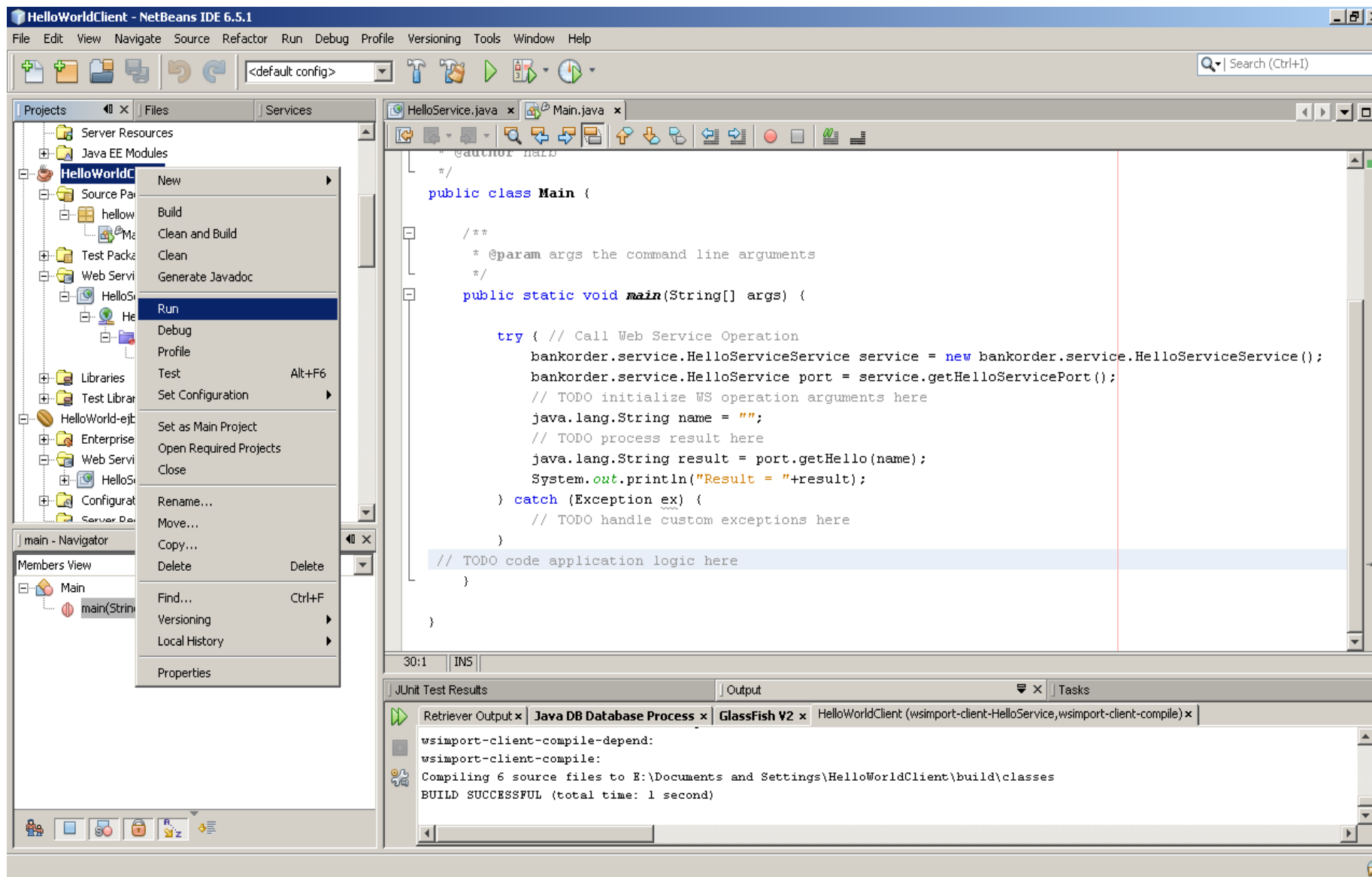
# Implement and Deploy web service (Contd.).



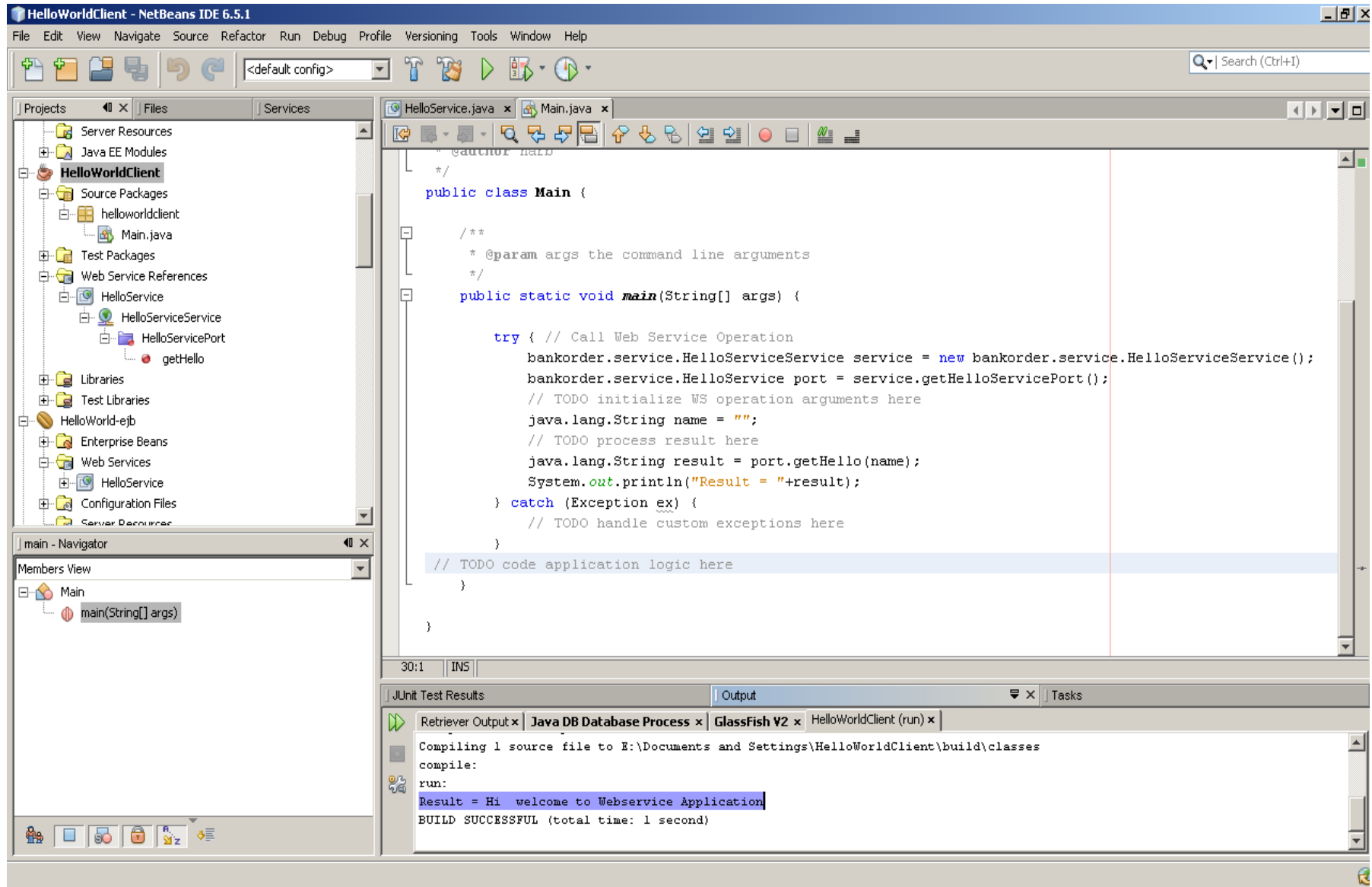
# Implement and Deploy web service (Contd.).



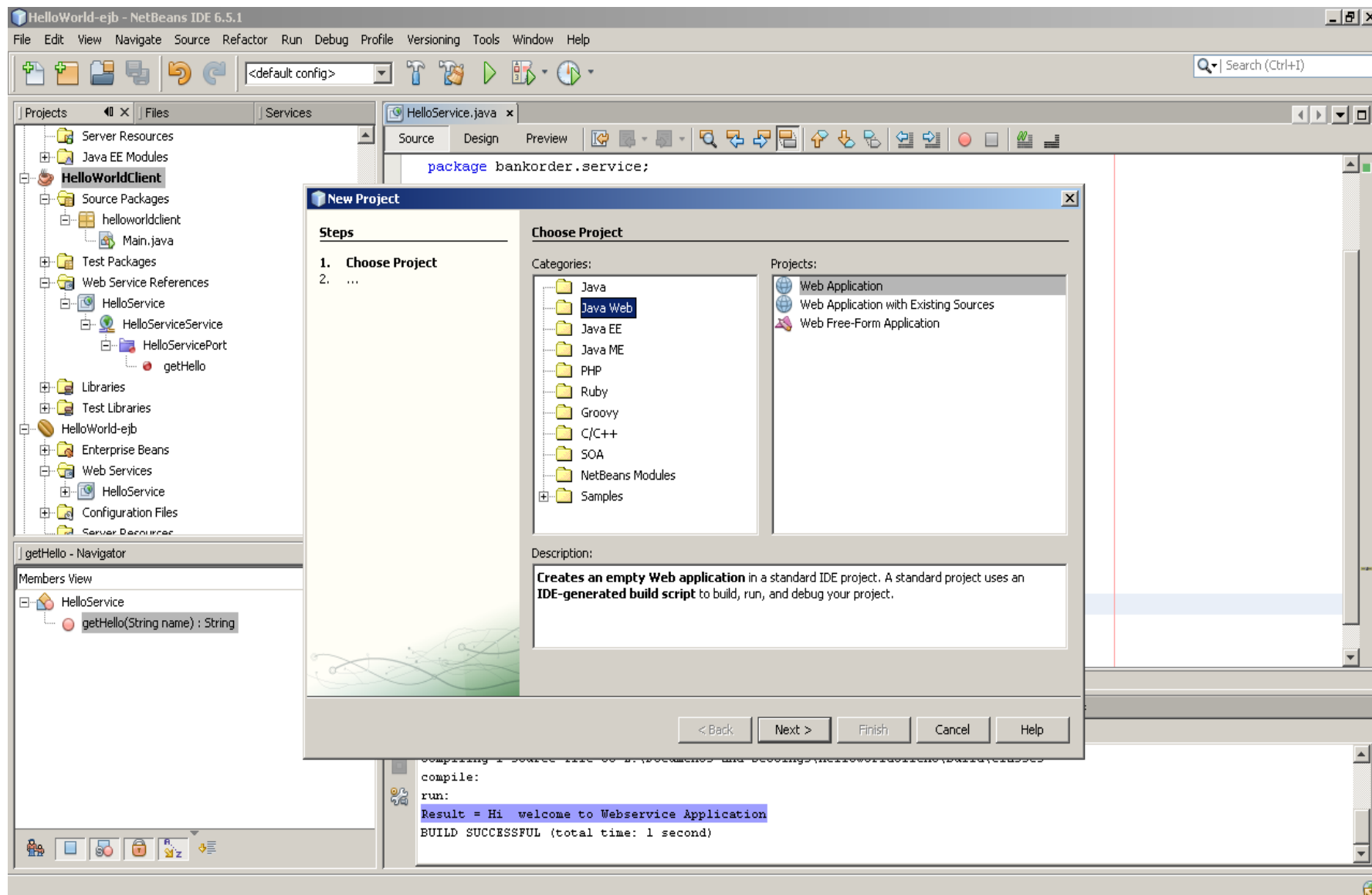
# Implement and Deploy web service (Contd.).



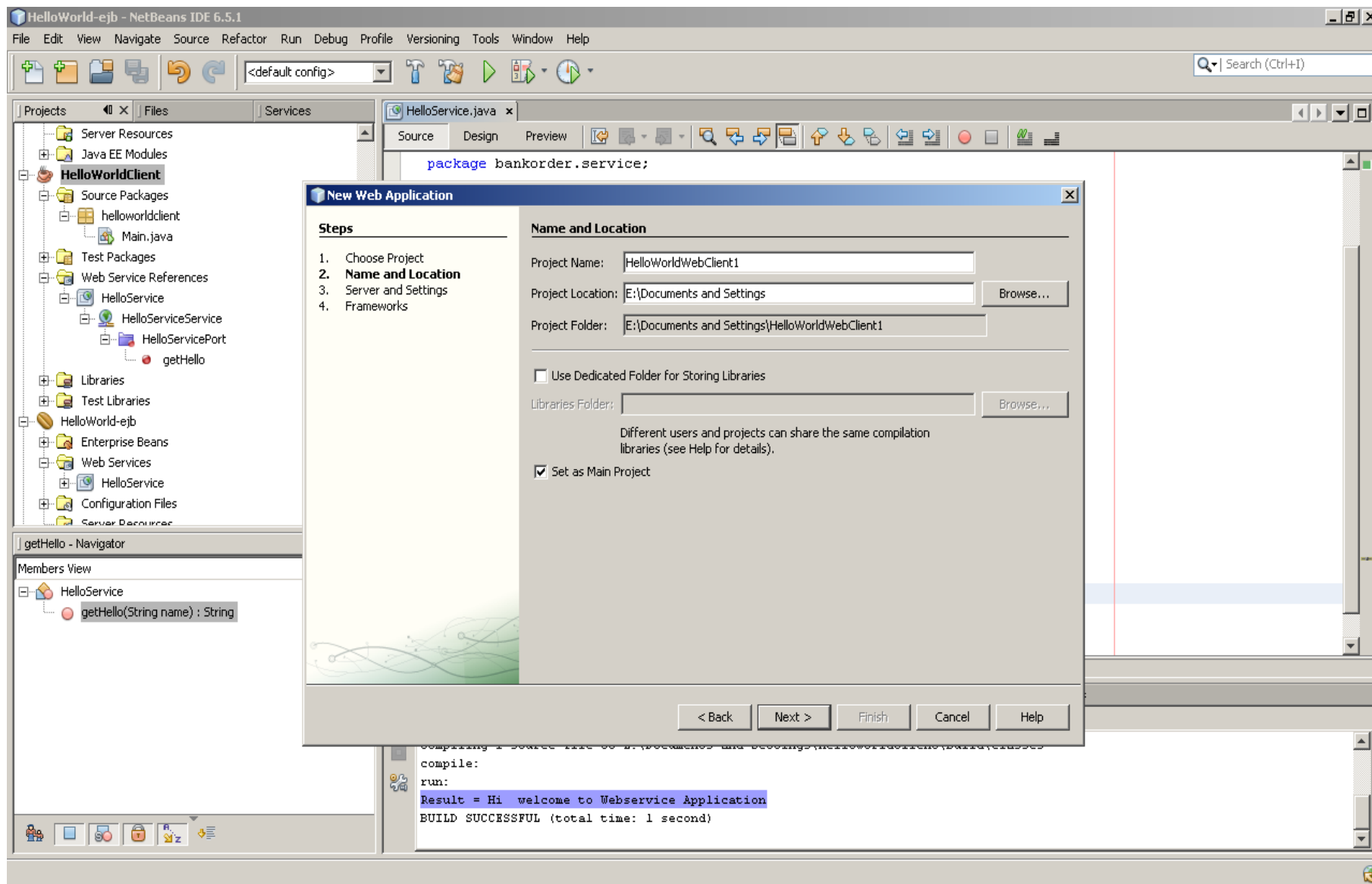
# Implement and Deploy web service (Contd.).



# Implement and Deploy web service (Contd.).

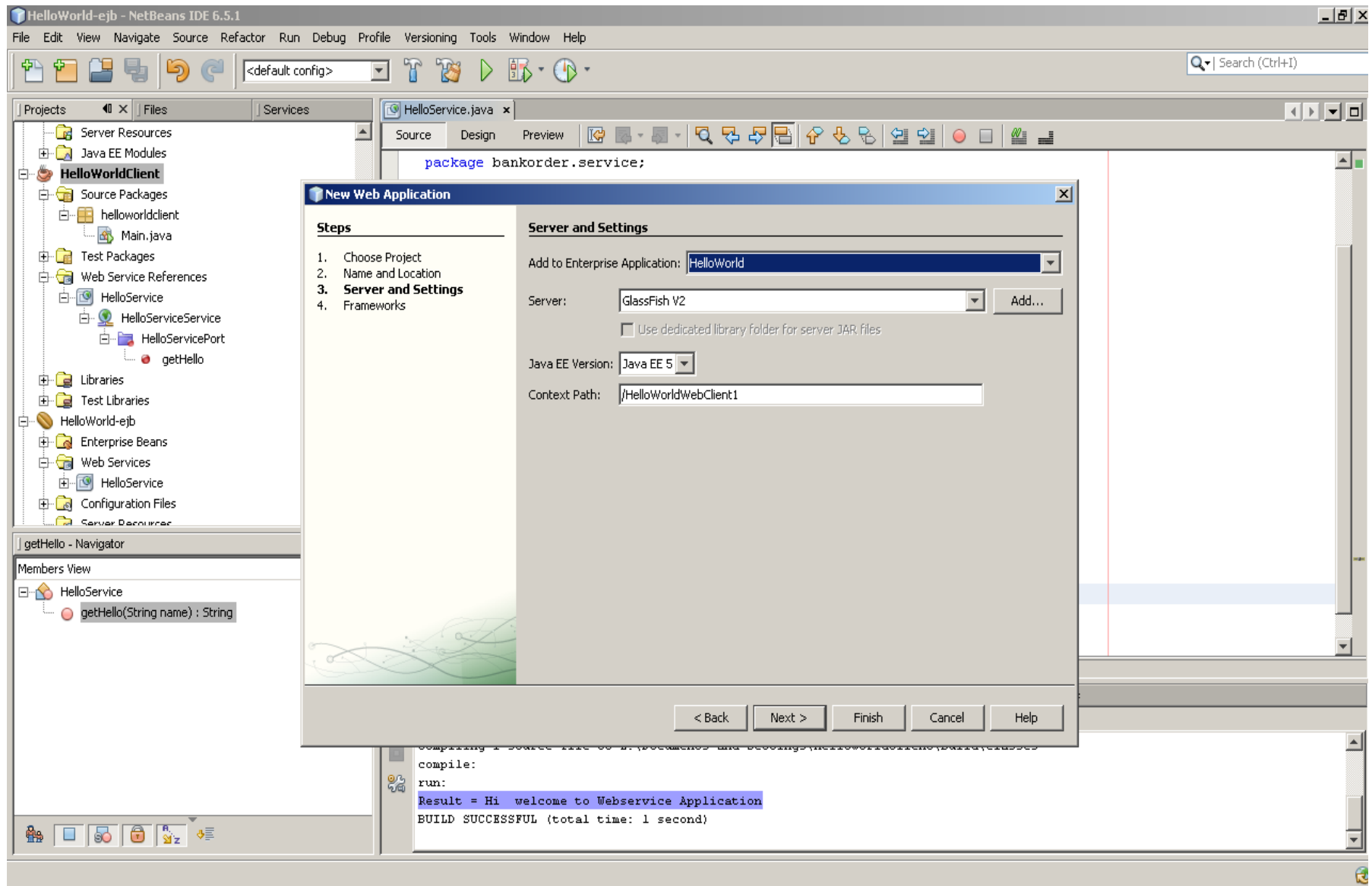


# Implement and Deploy web service (Contd.).

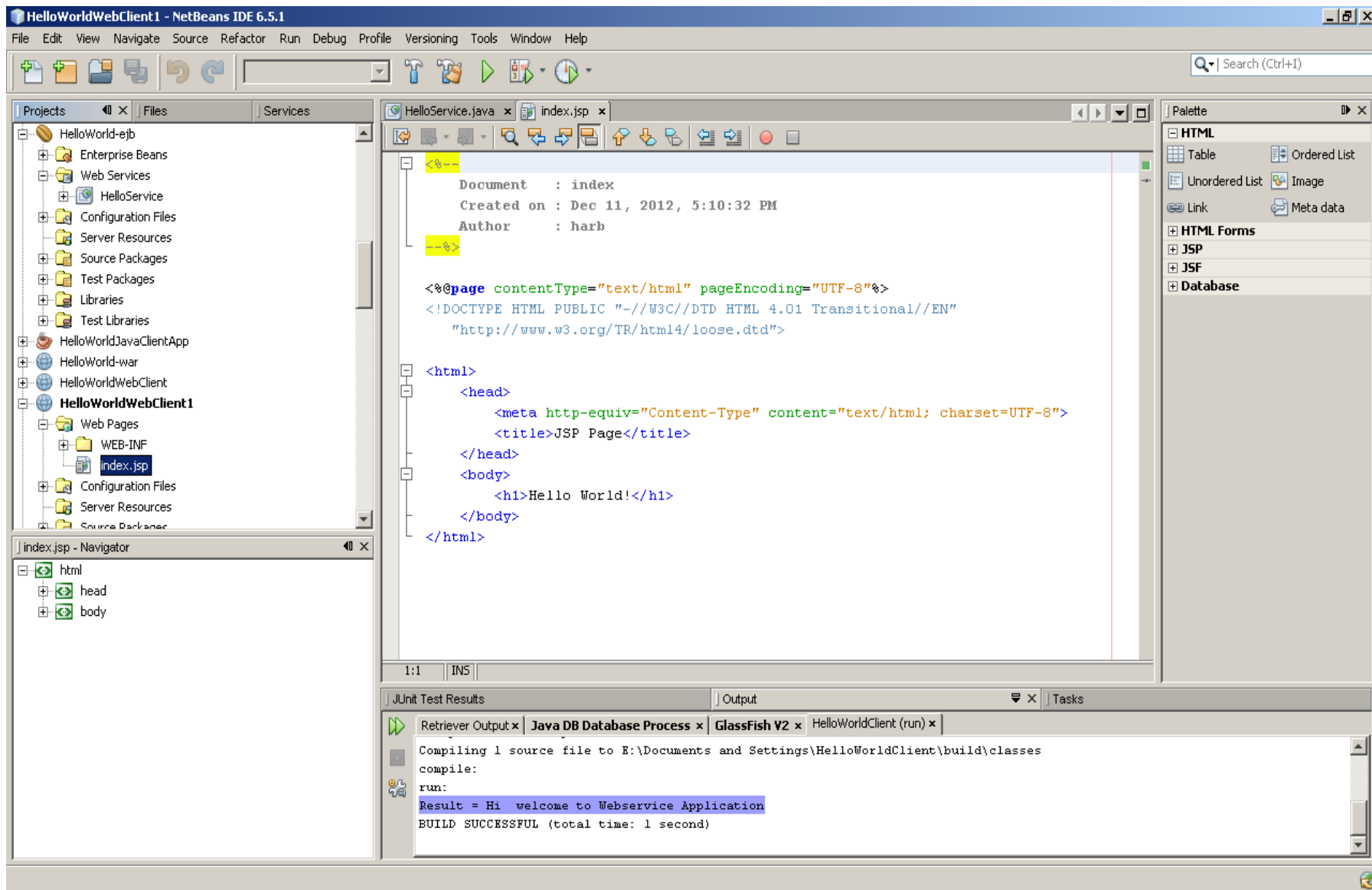




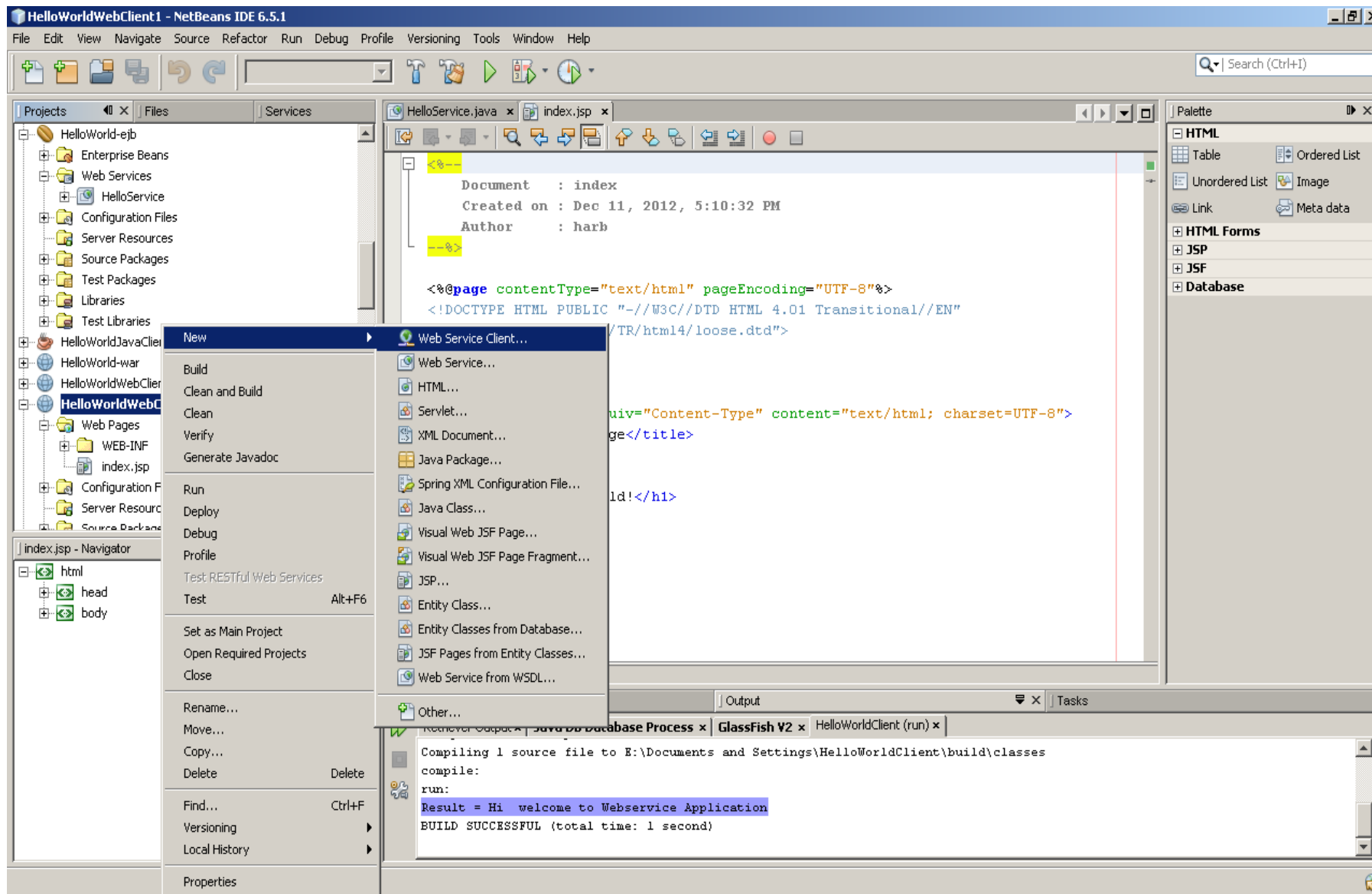
# Implement and Deploy web service (Contd.).



# Implement and Deploy web service (Contd.).



# Implement and Deploy web service (Contd.).



# Implement and Deploy web service (Contd.).

NetBeans IDE 6.5.1 - HelloWorldWebClient1

File Edit View Navigate Source Refactor Run Debug Profile Versioning Tools Window Help

Projects: HelloWorld-ejb, Enterprise Beans, Web Services, HelloWorld, Configuration Files, Server Resources, Source Packages, Test Packages, Libraries, Test Libraries, HelloWorldJavaClientApp, HelloWorld-war, HelloWorldWebClient, **HelloWorldWebClient1**, Web Pages, WEB-INF, index.jsp, Configuration Files, Server Resources, Source Packages

Services: HelloWorldService.java, index.jsp

Document: index  
Created on: Dec 11, 2012, 5:10:32 PM

**New Web Service Client**

**Steps**

1. Choose File Type
2. **WSDL and Client Location**

**WSDL and Client Location**

Specify the WSDL file of the Web Service.

☒ Project:

☐ Local File:

☐ WSDL URL:

Specify a location for the client.

Project:

Package:

Client Style:

☐ Generate Dispatch code

Enter the URL of the service you wish to use.

Retriever Output x Java DB Database Process x GlassFish V2 x HelloWorldClient (run) x

Compiling 1 source file to E:\Documents and Settings\HelloWorldClient\build\classes

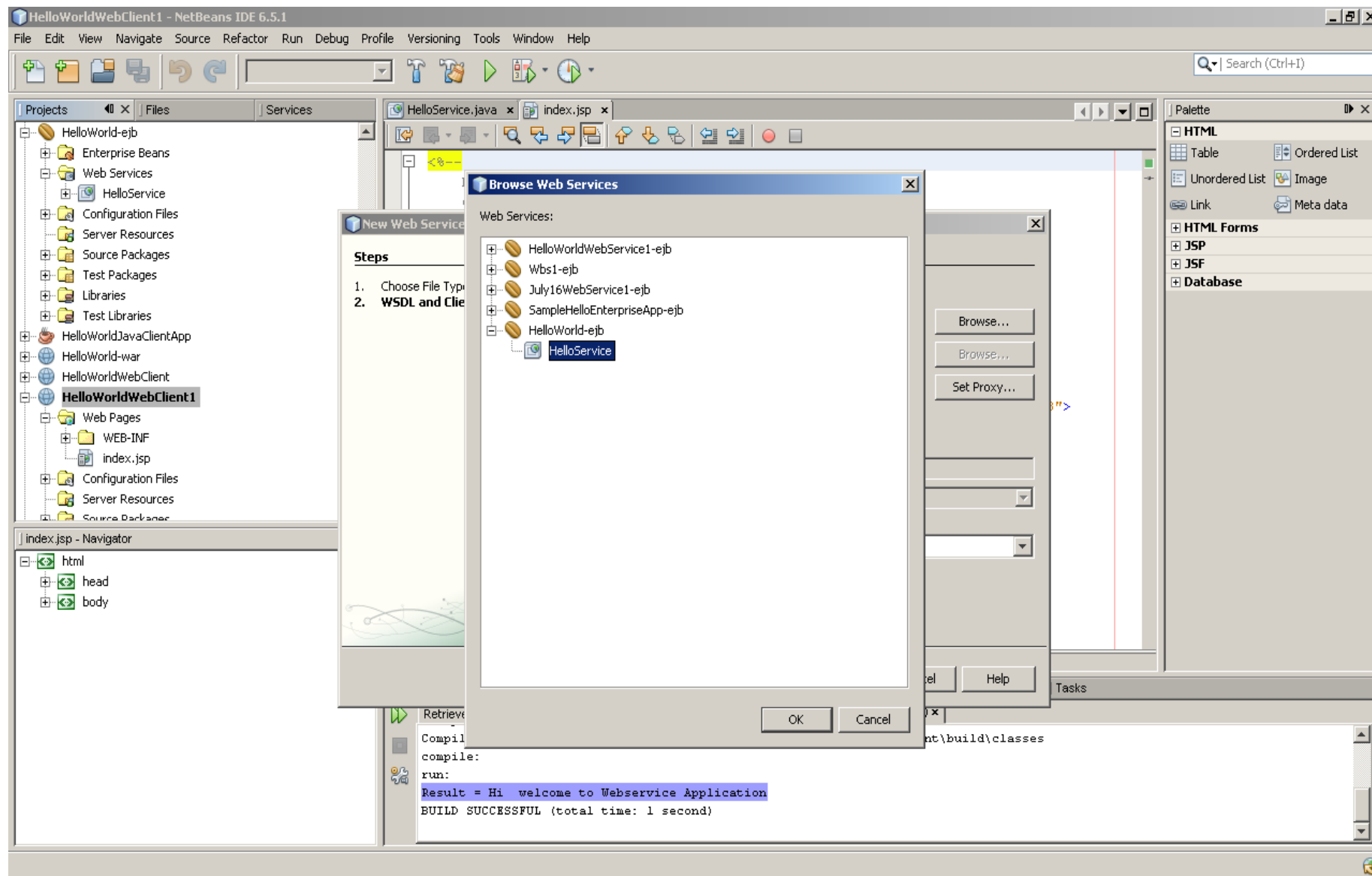
compile:

run:

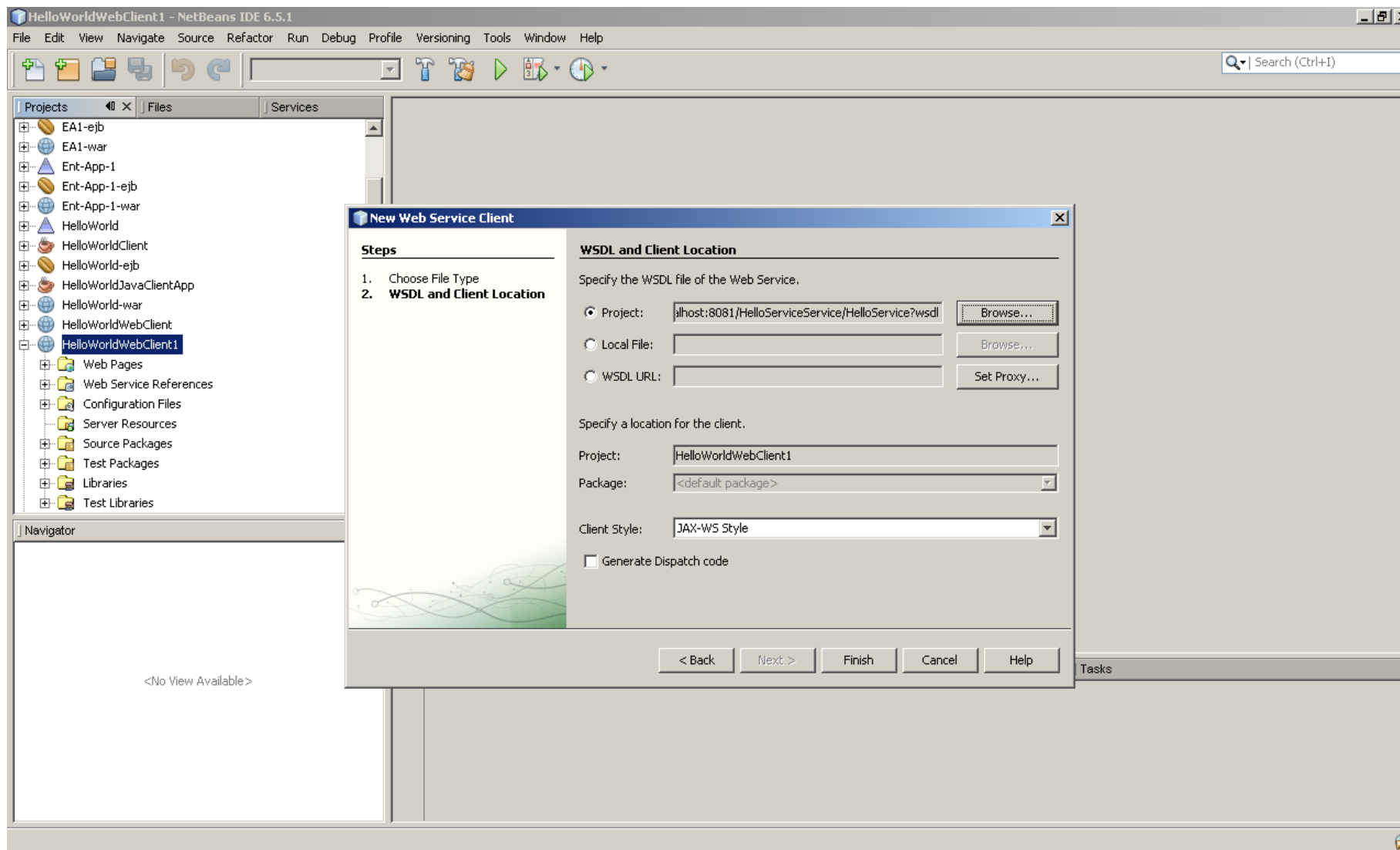
Result = Hi welcome to Webservice Application

BUILD SUCCESSFUL (total time: 1 second)

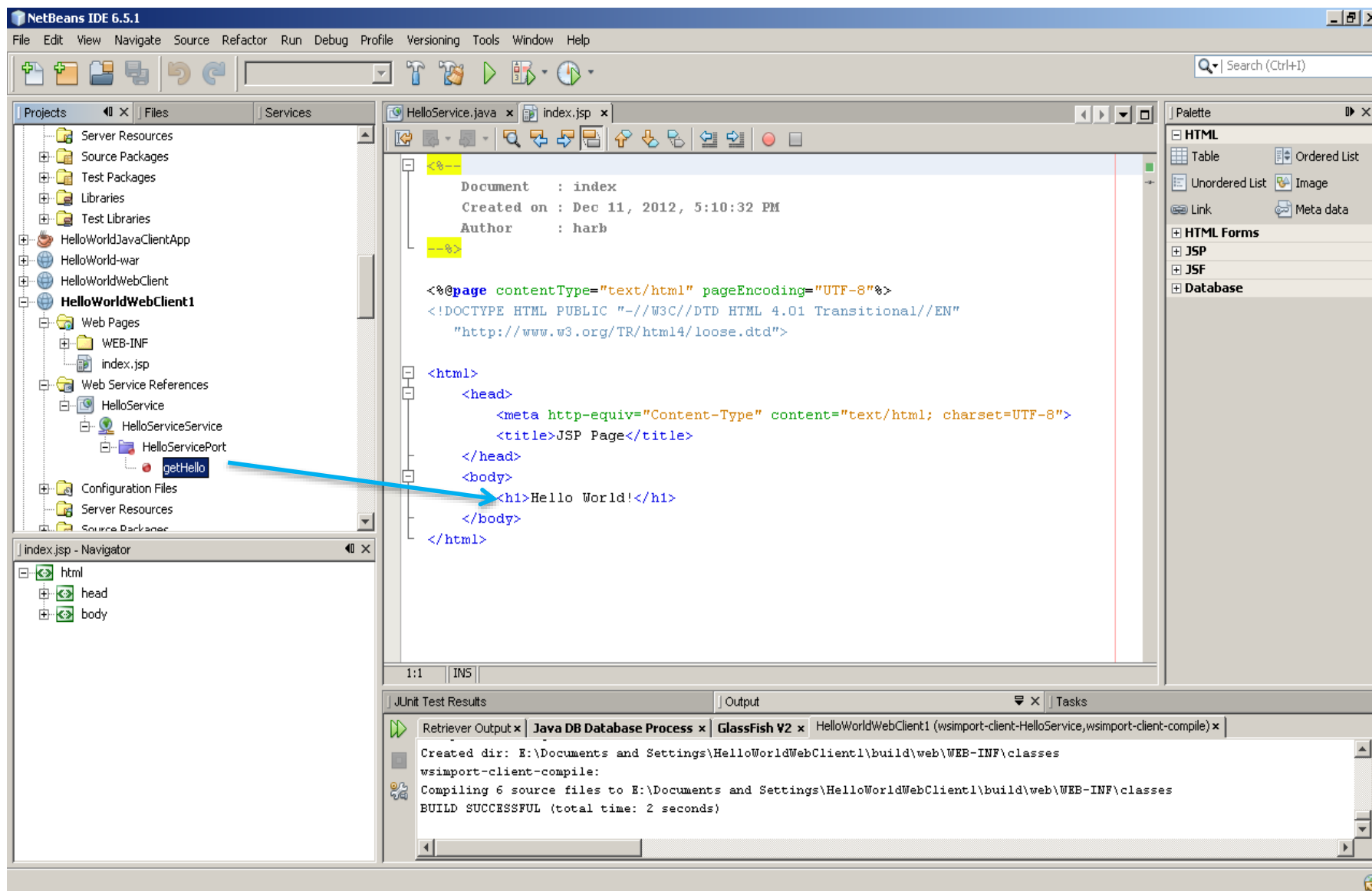
# Implement and Deploy web service (Contd.).



# Implement and Deploy web service (Contd.).



# Implement and Deploy web service (Contd.).



# Implement and Deploy web service (Contd.).

The screenshot displays the NetBeans IDE 6.5.1 interface. The main editor window shows the `index.jsp` file with the following content:

```
<?xml version='1.0' encoding='UTF-8' ?>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>JSP Page</title>
</head>
<body>
<h1>Hello World!</h1> <!-- start web service invocation --><hr/>
<%
try {
bankorder.service.HelloServiceService service = new bankorder.service.HelloServiceService();
bankorder.service.HelloService port = service.getHelloServicePort();
// TODO initialize WS operation arguments here
java.lang.String name = "Harish";
// TODO process result here
java.lang.String result = port.getHello(name);
out.println("Result = "+result);
} catch (Exception ex) {
// TODO handle custom exceptions here
}
%>
<!-- end web service invocation --><hr/>
</body>
</html>
```

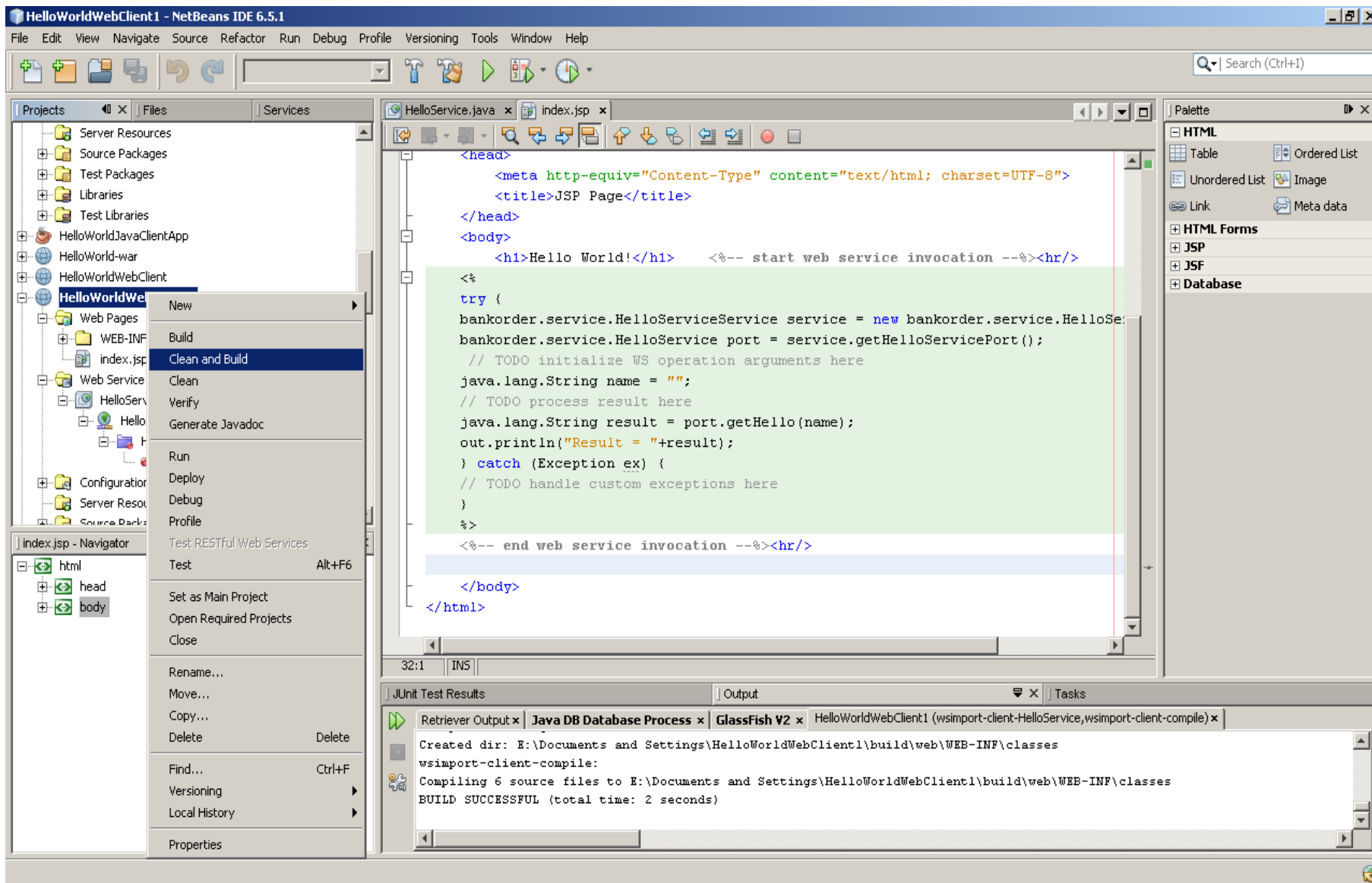
The left sidebar shows the project structure for `HelloWorldWebClient1`, including `Web Pages`, `WEB-INF`, `index.jsp`, `Web Service References`, `HelloService`, `HelloServiceService`, `HelloServicePort`, `getHello`, `Configuration Files`, and `Server Resources`.

The bottom status bar shows the deployment process, including the `Output` window with the following text:

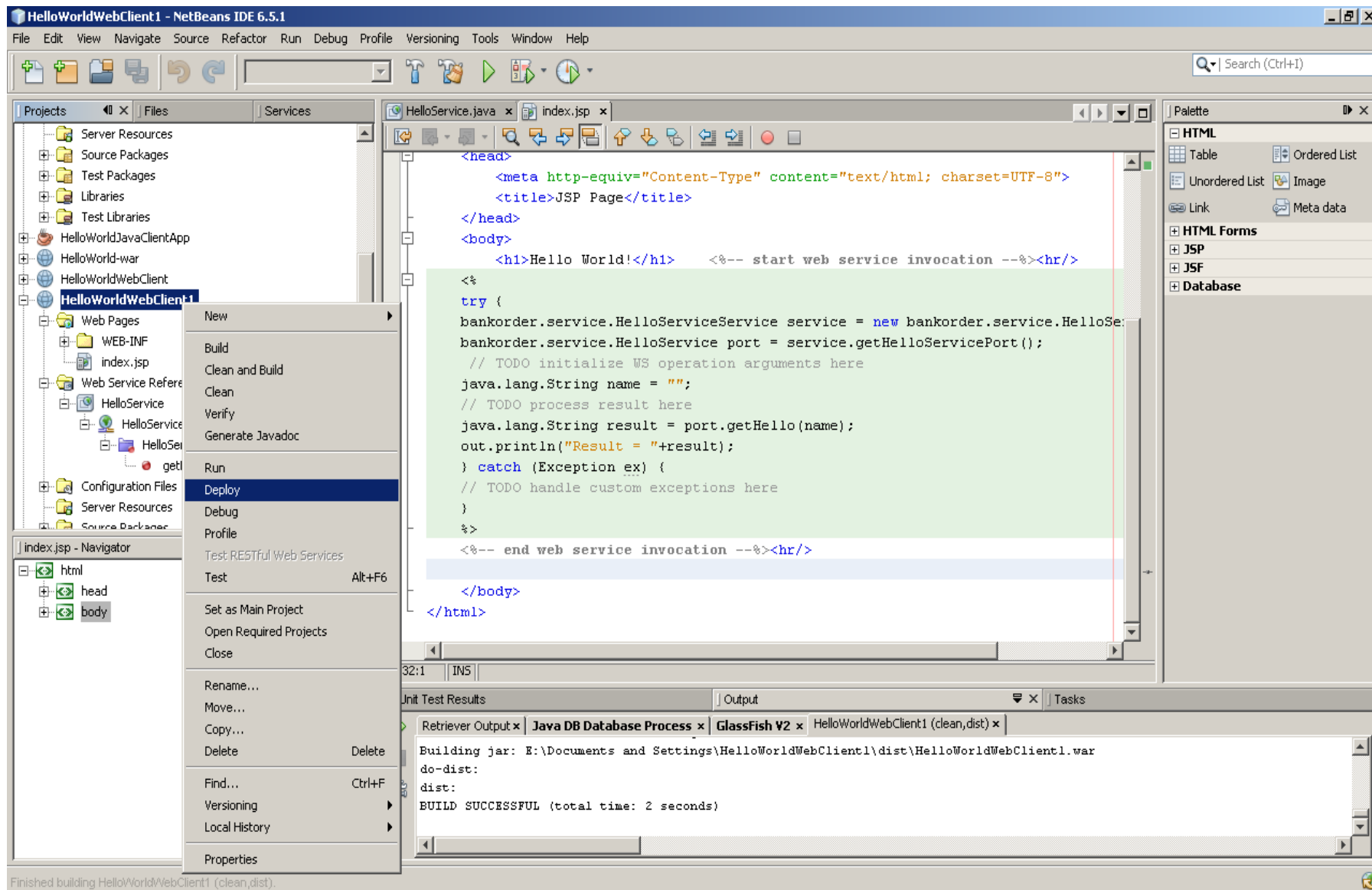
```
Retriever Output x Java DB Database Process x GlassFish V2 x HelloWorldWebClient1 (run) x
library-inclusion-in-archive:
library-inclusion-in-manifest:
wsimport-client-compile:
compile:
compile-jsp:
Incrementally deploying HelloWorldWebClient1_localhost:4848_server
```



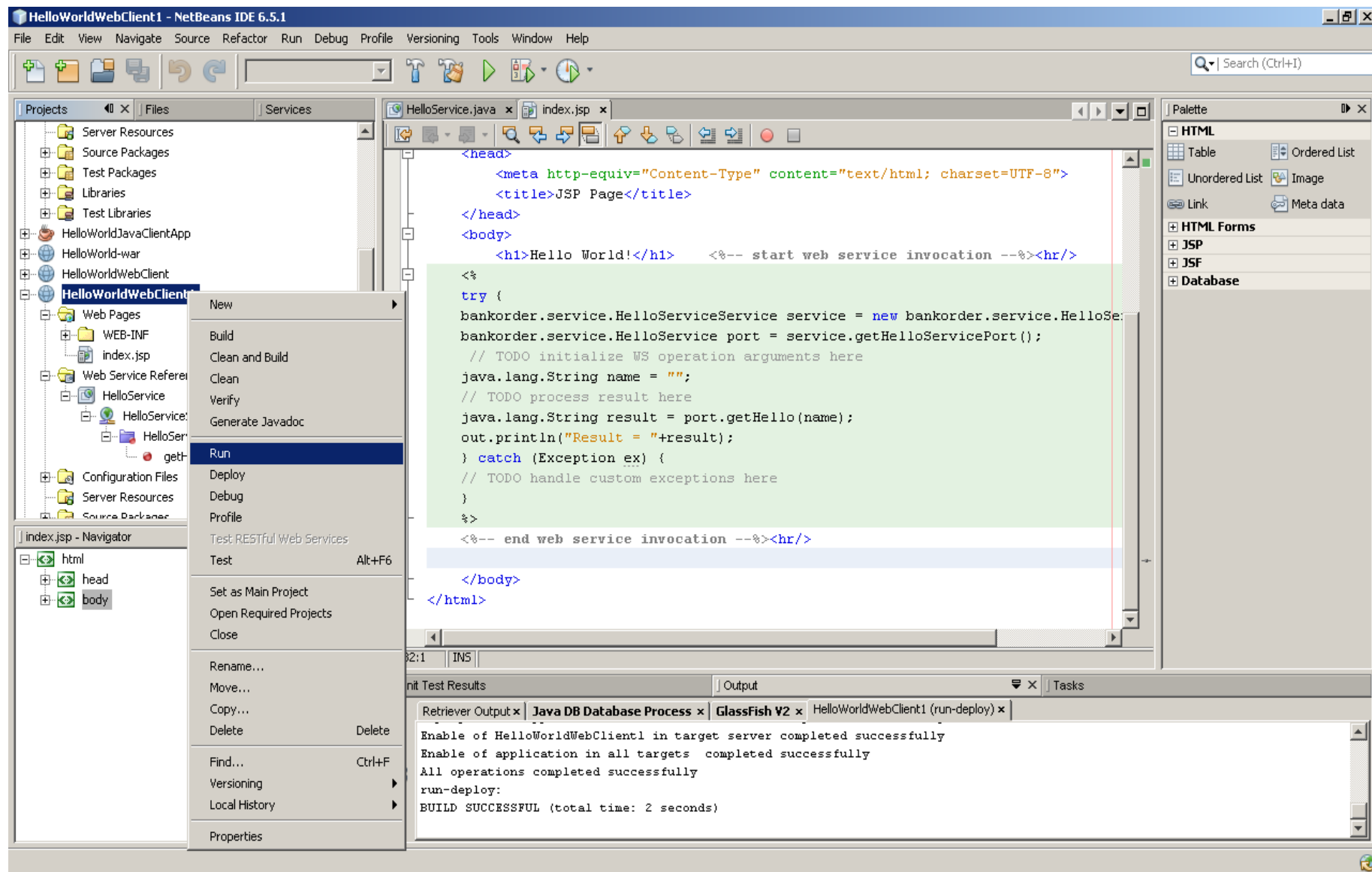
# Implement and Deploy web service (Contd.).



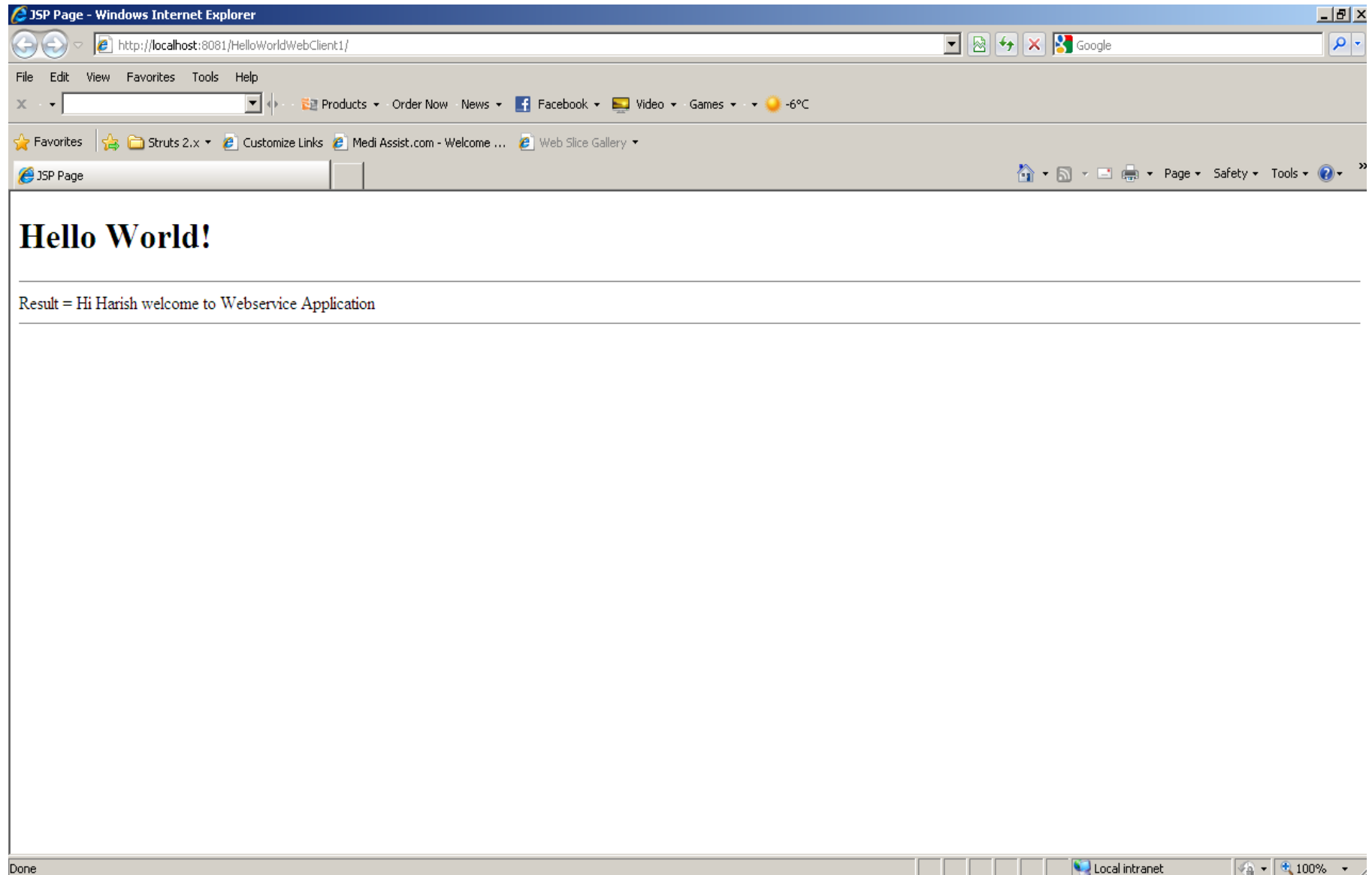
# Implement and Deploy web service (Contd.).



# Implement and Deploy web service (Contd.).



# Implement and Deploy web service (Contd.).





**Thank You**

