

**SOURCE CODE :****CC1.java**

```
package com.cc;

import javax.jws.WebService;

@WebService(endpointInterface = "com.cc.CCI") // Link to the interface CCI
public class CC1 implements CCI {

    @Override
    public double convertCurrency(String fromCurrency, String toCurrency, double amount) {
        // Simple conversion logic (mocked with a static conversion rate)
        double conversionRate = 1.2; // Mock conversion rate for demonstration
        if (fromCurrency.equals("USD") && toCurrency.equals("EUR")) {
            return amount * conversionRate;
        } else if (fromCurrency.equals("EUR") && toCurrency.equals("USD")) {
            return amount / conversionRate;
        } else {
            return amount; // If currencies are the same
        }
    }
}
```

**Client.java**

```
package com.cc;

import javax.xml.namespace.QName;
import javax.xml.ws.Service;
import java.net.URL;

public class Client {

    public static void main(String[] args) {
```

```

try {
    // The URL of the WSDL file for the web service
    URL url = new URL("http://localhost:8080/CC/CC1Service?WSDL");

    // The QName must match the service name and the target namespace from the WSDL
    QName qname = new QName("http://cc.com/", "CC1Service");

    // Create a Service object from the WSDL URL and QName
    Service service = Service.create(url, qname);

    // Get the port (the client-side proxy) for the CCI interface
    CCI port = service.getPort(CCI.class);

    // Call the method on the service and print the result
    double result = port.convertCurrency("USD", "EUR", 100.0);
    System.out.println("Converted Amount: " + result);

} catch (Exception e) {
    e.printStackTrace();
}
}

```

### **CCI.java**

```

package com.cc;

import javax.jws.WebService;
import javax.jws.WebMethod;

@WebService
public interface CCI {
    @WebMethod
    double convertCurrency(String fromCurrency, String toCurrency, double amount);
}

```

## CurrencyConverter.jsp

```
<%@ page import="javax.xml.namespace.QName" %>
<%@ page import="java.net.URL" %>
<%@ page import="javax.xml.ws.Service" %>
<%@ page import="com.cc.CCI" %> <!-- Import the web service interface -->
<%@ page contentType="text/html; charset=UTF-8" language="java" %>
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <title>Currency Converter</title>
  <style>
    body { font-family: Arial, sans-serif; padding: 20px; }
    .form-container { margin-top: 20px; }
    input, select { padding: 10px; margin: 5px 0; }
  </style>
</head>
<body>
  <h1>Currency Converter</h1>

  <!-- Form to input the currency and amount -->
  <form action="CurrencyConverter.jsp" method="post">
    <label for="fromCurrency">From Currency:</label>
    <select id="fromCurrency" name="fromCurrency">
      <option value="USD">USD</option>
      <option value="EUR">EUR</option>
    </select><br>

    <label for="toCurrency">To Currency:</label>
    <select id="toCurrency" name="toCurrency">
      <option value="EUR">EUR</option>
      <option value="USD">USD</option>
    </select><br>
```

```

<label for="amount">Amount:</label>

<input type="number" id="amount" name="amount" required /><br>

<input type="submit" value="Convert" />
</form>

<div class="form-container">
    <%
    // Get form parameters
    String fromCurrency = request.getParameter("fromCurrency");
    String toCurrency = request.getParameter("toCurrency");
    String amountStr = request.getParameter("amount");
    double convertedAmount = 0;

    // If parameters are available, invoke the web service
    if (fromCurrency != null && toCurrency != null && amountStr != null) {
        try {
            double amount = Double.parseDouble(amountStr);

            // Construct the WSDL URL and service QName
            URL url = new URL("http://localhost:8080/CC/CC1Service?WSDL");
            QName qname = new QName("http://cc.com/", "CC1Service");

            // Create the service and get the port (interface)
            Service service = Service.create(url, qname);
            CCI port = service.getPort(CCI.class); // Use the CCI interface

            // Call the web service method
            convertedAmount = port.convertCurrency(fromCurrency, toCurrency, amount);
        } catch (Exception e) {
            out.println("<p style='color: red;'>Error: " + e.getMessage() + "</p>");
        }
    }
    }

```

```
// Display the result if available
if (convertedAmount != 0) {
    out.println("<h3>Converted Amount: " + convertedAmount + "</h3>");
}
%>
</div>
</body>
</html>
```

OUTPUT :

## Currency Converter    Currency Converter

From Currency:

To Currency:

Amount:

From Currency:

To Currency:

Amount:

**Converted Amount: 1200.0**