

ΟΝΟΜΑ: ΑΜΠΙΤ ΠΑΛ

ΕΞΑΜΗΝΟ: 7ο

ΑΜ:2245

### Έκδοχή πρώτη Currency Converter

```
package CurrencyConverter;

import java.io.*;
import javax.servlet.*;
import javax.servlet.annotation.*;
import javax.servlet.http.*;

@WebServlet("/currencyconverter")
public class CurrencyConverter extends HttpServlet {

    private static final double EUR_TO_USD = 1.06;
    private static final double EUR_TO_GBP = 0.84;

    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        response.setContentType("text/html");
        response.setCharacterEncoding("UTF-8");
        PrintWriter out = response.getWriter();

        out.println("<!DOCTYPE html>");
        out.println("<html><head><title>Currency Converter</title></head><body>");
        out.println("<h1>Μετατροπή Ποσών σε Διαδοχικά Νομίσματα</h1>");

        String amountStr = request.getParameter("amount");
        String fromCurrency = request.getParameter("from");
```

```

String toCurrency = request.getParameter("to");

out.println("<form method=\"get\">");
    out.println("Ποσό: <input type=\"text\" name=\"amount\" value=\"" + (amountStr != null ? amountStr : "") + "\">");
    out.println("Από: ");
    out.println("<select name=\"from\">");
        out.println("<option value=\"Ευρώ\" " + (fromCurrency != null && fromCurrency.equals("Ευρώ") ? " selected" : "") + ">Ευρώ</option>");
        out.println("<option value=\"Δολάρια\" " + (fromCurrency != null && fromCurrency.equals("Δολάρια") ? " selected" : "") + ">Δολάρια</option>");
        out.println("<option value=\"Λίρες\" " + (fromCurrency != null && fromCurrency.equals("Λίρες") ? " selected" : "") + ">Λίρες</option>");
    out.println("</select>");
    out.println("Σε: ");
    out.println("<select name=\"to\">");
        out.println("<option value=\"Ευρώ\" " + (toCurrency != null && toCurrency.equals("Ευρώ") ? " selected" : "") + ">Ευρώ</option>");
        out.println("<option value=\"Δολάρια\" " + (toCurrency != null && toCurrency.equals("Δολάρια") ? " selected" : "") + ">Δολάρια</option>");
        out.println("<option value=\"Λίρες\" " + (toCurrency != null && toCurrency.equals("Λίρες") ? " selected" : "") + ">Λίρες</option>");
    out.println("</select>");
    out.println("<input type=\"submit\" value=\"Convert\">");
    out.println("</form>");

if (amountStr != null && isValidNumber(amountStr) && fromCurrency != null && toCurrency != null) {
    double amount = Double.parseDouble(amountStr);
    double result = convertCurrency(amount, fromCurrency, toCurrency);
    out.println("<h1>" + amount + " " + fromCurrency + " = " + result + " " + toCurrency + "</h1>");
} else if (amountStr != null || fromCurrency != null || toCurrency != null) {

```

```
        out.println("<h1 style=\"color:red;\">Παρακαλώ εισάγετε έγκυρα δεδομένα.</h1>");

    }

    out.println("</body></html>");

}

private boolean isValidNumber(String number) {

    try {

        Double.parseDouble(number);

        return true;

    } catch (NumberFormatException e) {

        return false;

    }

}

private double convertCurrency(double amount, String fromCurrency, String toCurrency) {

    double result;

    if (fromCurrency.equals("Ευρώ")) {

        if (toCurrency.equals("Δολάρια")) {

            result = amount * EUR_TO_USD;

        } else if (toCurrency.equals("Λίρες")) {

            result = amount * EUR_TO_GBP;

        } else {

            result = amount;

        }

    } else if (fromCurrency.equals("Δολάρια")) {

        if (toCurrency.equals("Ευρώ")) {

            result = amount / EUR_TO_USD;

        } else if (toCurrency.equals("Λίρες")) {

            result = (amount / EUR_TO_USD) * EUR_TO_GBP;

        }

    }

}
```

```
    } else {
        result = amount;
    }

} else if (fromCurrency.equals("Λίρες")) {
    if (toCurrency.equals("Ευρώ")) {
        result = amount / EUR_TO_GBP;
    } else if (toCurrency.equals("Δολάρια")) {
        result = (amount / EUR_TO_GBP) * EUR_TO_USD;
    } else {
        result = amount;
    }
}

} else {
    result = amount;
}

return result;
}
```