



HTML Forms

Sending Data to Server-Side Programs

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Taught by the author of *Core Servlets and JSP*, *More Servlets and JSP*, and this tutorial. Available at public venues, or customized versions can be held on-site at your organization. Contact hall@coreservlets.com for details.

Agenda

- Sending data from forms
- The FORM element
- Text controls
- Push buttons
- Check boxes and radio buttons
- Combo boxes and list boxes
- File upload controls
- Server-side image maps
- Hidden fields
- Grouping controls
- Tab ordering

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Sending Data with GET

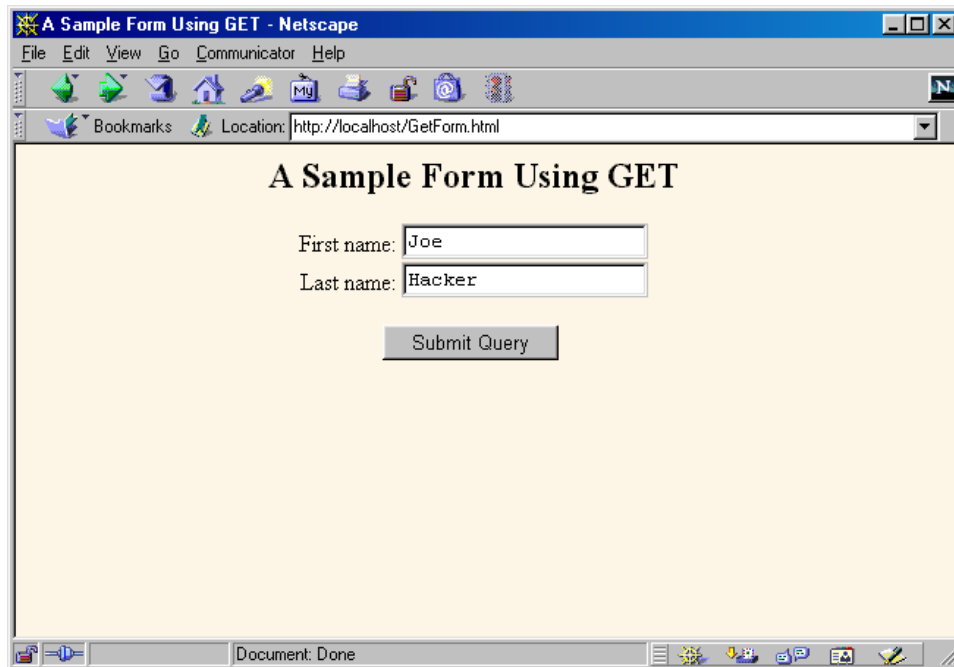
```
...
<BODY BGCOLOR="#FDF5E6">
<H2 ALIGN="CENTER">A Sample Form Using GET</H2>

<FORM ACTION="http://localhost:8088/SomeProgram">
  <CENTER>
    First name:
    <INPUT TYPE="TEXT" NAME="firstName" VALUE="Joe"><BR>
    Last name:
    <INPUT TYPE="TEXT" NAME="lastName" VALUE="Hacker"><P>
    <INPUT TYPE="SUBMIT">
  </CENTER>
</FORM>

</BODY></HTML>
```

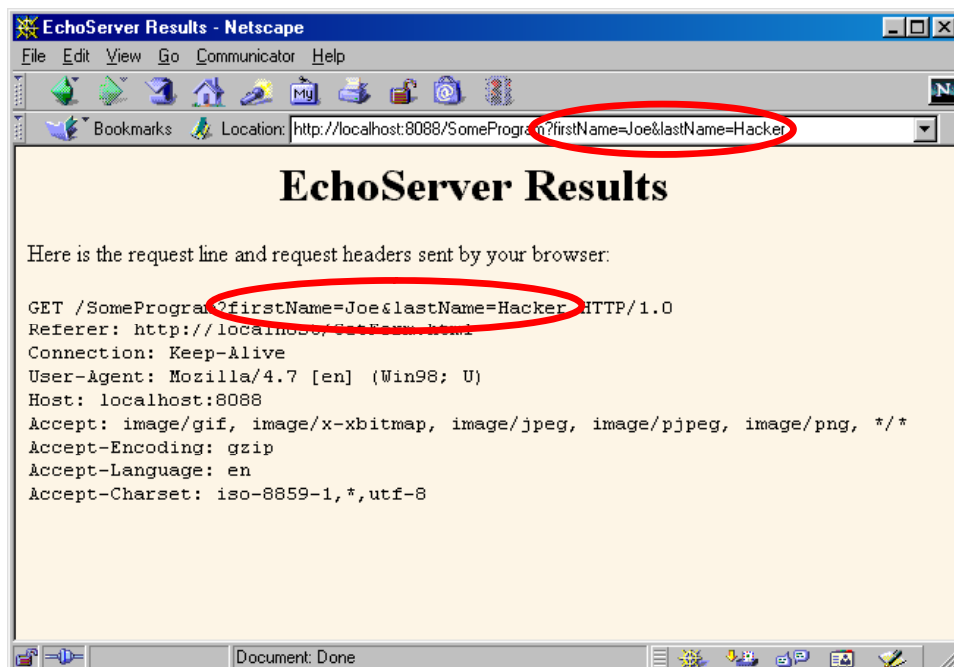
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Initial Result



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Submission Result



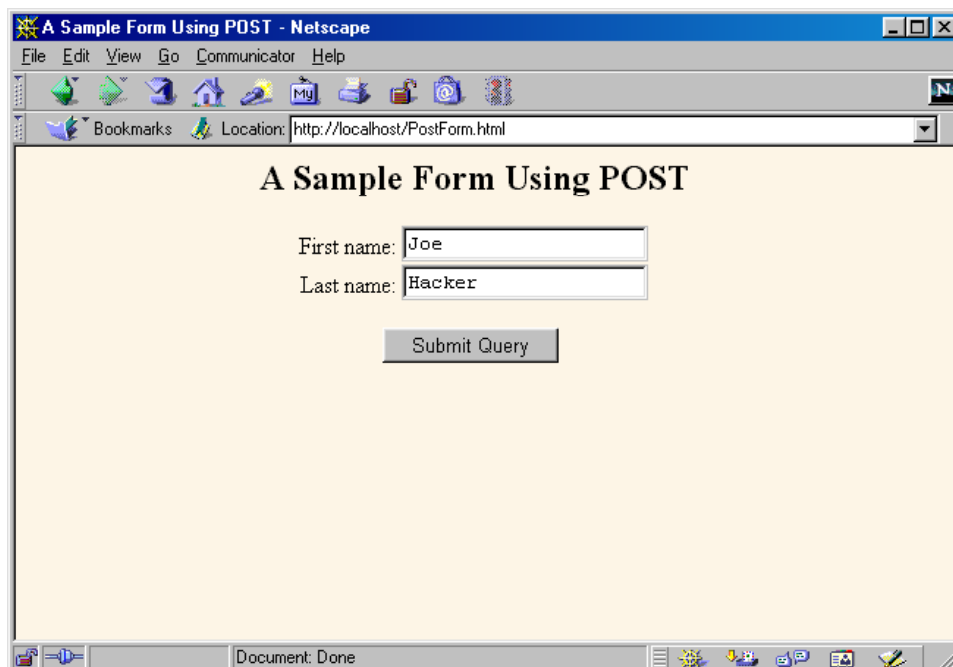
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Sending Data with POST

```
...  
<BODY BGCOLOR="#FDF5E6">  
<H2 ALIGN="CENTER">A Sample Form Using POST</H2>  
  
<FORM ACTION="http://localhost:8088/SomeProgram"  
      METHOD="POST">  
  <CENTER>  
    First name:  
    <INPUT TYPE="TEXT" NAME="firstName" VALUE="Joe"><BR>  
    Last name:  
    <INPUT TYPE="TEXT" NAME="lastName" VALUE="Hacker"><P>  
    <INPUT TYPE="SUBMIT">  
  </CENTER>  
</FORM>  
  
</BODY></HTML>
```

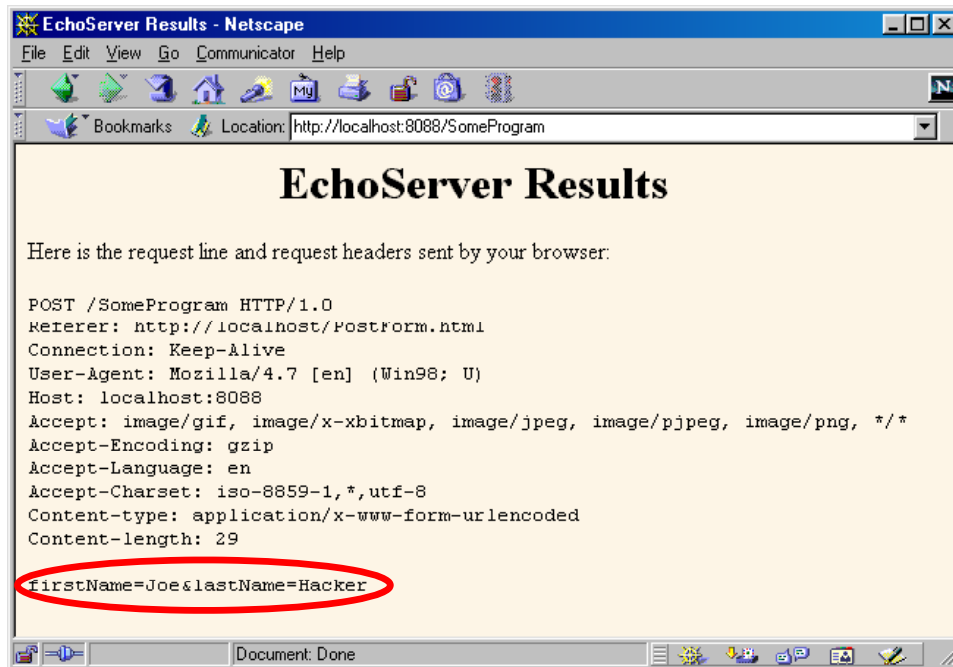
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Initial Result



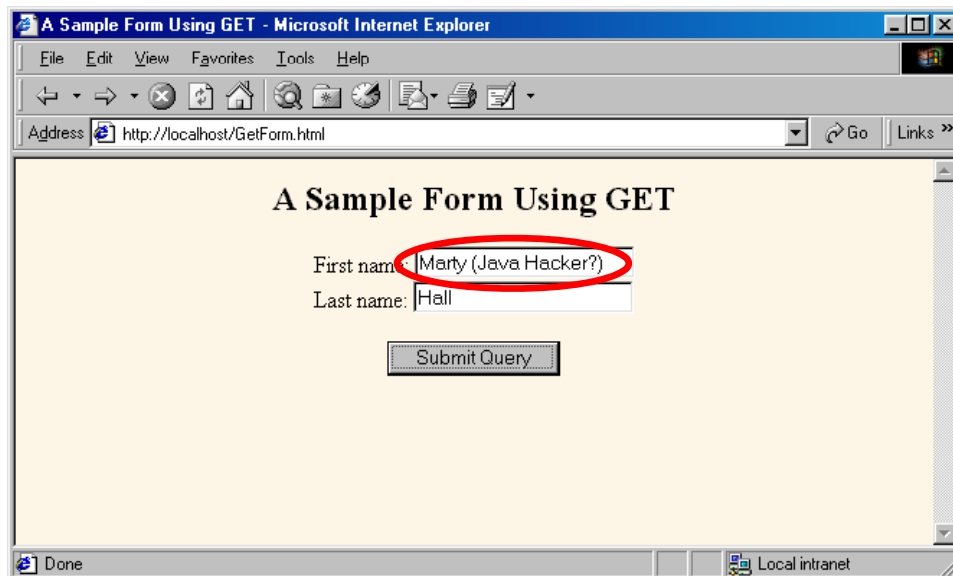
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Submission Result



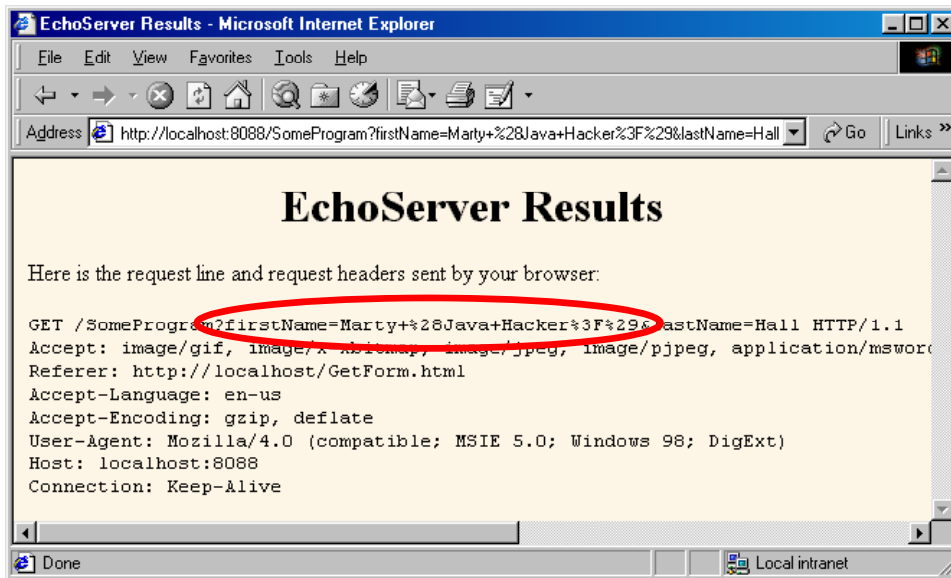
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URL Encoding: Original Form



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URL Encoding: Result



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Text Controls

- **Textfields**

- `<INPUT TYPE="TEXT" NAME="..." ...>`
 - VALUE can give original value

- **Password Fields**

- `<INPUT TYPE="PASSWORD" NAME="..." ...>`
 - Always use POST

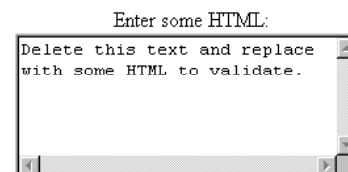
Enter Password:

- **Text Areas**

- `<TEXTAREA NAME="..." ROWS="..." COLS="...">`

...
`</TEXTAREA>`

- Interpretation of regular HTML tags turned off between `<TEXTAREA...>` and `</TEXTAREA>`



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Push Buttons

- **Submit Buttons**

- `<INPUT TYPE="SUBMIT" ...>`
 - Use `NAME` if you have multiple buttons
 - Use `VALUE` to change button's label



- **Reset Buttons**

- `<INPUT TYPE="RESET" ...>`
 - Use `VALUE` to change button's label

- **JavaScript Buttons**

- `<INPUT TYPE="BUTTON" onClick="someJavaScriptFunction()" ...>`



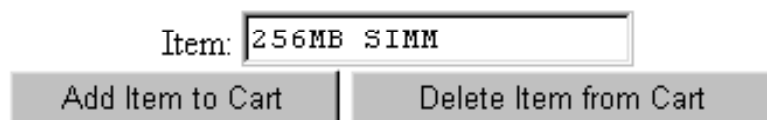
- **Fancy Buttons**

- `<BUTTON TYPE="SUBMIT" ...>HTML</BUTTON>`
 - Internet Explorer and Netscape 6 only

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Using Multiple Submit Buttons

```
<CENTER>
Item:
<INPUT TYPE="TEXT" NAME="Item" VALUE="256MB SIMM"><BR>
<INPUT TYPE="SUBMIT" NAME="Add"
      VALUE="Add Item to Cart">
<INPUT TYPE="SUBMIT" NAME="Delete"
      VALUE="Delete Item from Cart">
</CENTER>
```



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Check Boxes

- **Format**

- `<INPUT TYPE="CHECKBOX" NAME="..." ...>`
 - The `CHECKED` attribute makes it initially checked
 - Name/value pair sent only if checkbox is checked when form is submitted

- **Example code**

```
<P>
<INPUT TYPE="CHECKBOX" NAME="noEmail" CHECKED>
Check here if you do <I>not</I> want to
get our email newsletter
```

- **Example result**

Check here if you do *not* want to get our email newsletter

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Radio Buttons

- **Format**

- `<INPUT TYPE="RADIO" NAME="..." VALUE="..."...>`
 - All radio buttons in a group should have same `NAME`
 - Only one button in a group can be pressed; pressing a different one causes previous one to pop out

- **Example**

```
<DL>
  <DT>Credit Card:
  <DD><INPUT TYPE="RADIO" NAME="creditCa
    VALUE="visa">
    Visa
  <DD><INPUT TYPE="RADIO" NAME="creditCa
    VALUE="mastercard">
    Master Card
  ...
</DL>
```

Credit Card:

- Visa
- Master Card
- Java Smart Card
- American Express
- Discover

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Combo Boxes

- **Format**

- SELECT gives NAME
- OPTION gives VALUE

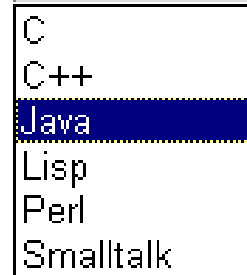
Favorite language:

- **Example**

Favorite language:

Favorite language:

```
<SELECT NAME="language">
  <OPTION VALUE="c">C
  <OPTION VALUE="c++">C+
  <OPTION VALUE="java" S
  <OPTION VALUE="lisp">L
  <OPTION VALUE="perl">P
  <OPTION VALUE="smallta
</SELECT>
```



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List Boxes

- **Format**

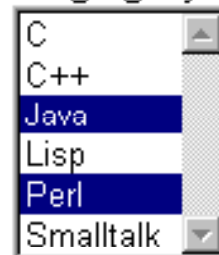
- Identical to combo boxes, but specify MULTIPLE

- **Example**

Languages you know:


```
<SELECT NAME="language" MULTIPLE>
  <OPTION VALUE="c">C
  <OPTION VALUE="c++">C++
  <OPTION VALUE="java" SELECTED>Java
  <OPTION VALUE="lisp">Lisp
  <OPTION VALUE="perl" SELECTED>Perl
  <OPTION VALUE="smalltalk">Smalltalk
</SELECT>
```

Languages you know:



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Other Controls and Options

- **File upload controls**
 - Lets user select a file and send it to the server
- **Server-side image maps**
 - User clicks on an image and form gets submitted.
 - Form data gets sent as *name.x=x-pos&name.y=y-pos*
- **Hidden fields**
 - Preset NAME and VALUE sent with form submission..
- **Grouping Controls**
 - FIELDSET lets you visually group forms.
 - Internet Explorer and Netscape 6 only.
- **Tab order control**
 - TABINDEX (Internet Explorer and Netscape 6 only)

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Summary

- **General process**
 - FORM uses ACTION to specify base URL
 - Input elements each have a NAME
 - User enters values
 - When form submitted, URL is
baseURL?name1=value1&name2=value2&...
 - For POST requests, name/value pairs sent on separate line
(not part of URL)
- **Textfields**
 - `<INPUT TYPE="TEXT" ...>`
- **Submit Buttons**
 - `<INPUT TYPE="SUBMIT" ...>`

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Questions?

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