

Web Application Development

HTML Form

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2.0 Forms

- A form is the usual way to communicate information from a Web browser to a server
- HTML has tags to create a collection of objects that implement this information gathering
- These objects are called *widgets* (e.g., radio buttons, text box and checkboxes)
- The values (user input) in a form are called *form data*. Every form requires a Submit button.
- When the Submit button of a form is clicked, the form's values are sent to the server
- All of the widgets, or components of a form are defined in the content of a `<form>` tag

4.0 Forms (cont.)

- The only required attribute of `<form>` is `action`, which specifies the URL of the application that is to be called when the Submit button is clicked

```
action = "http://www.cs.ucp.edu/cgi-bin/survey.php"
```

- If the form has no action, the value of `action` is the empty string

4.0 Forms (cont)

- The `method` attribute of `<form>` specifies one of the two possible techniques of transferring the form data to the server, `get` and `post`

`post` – append form data to the browser request, which contains protocol (e.g. HTTP) and the requested resource's URL

`get` – append form data directly to the end of the URL (e.g. `/cgi-bin/formmail`)

- *Widgets*

- Many are created with the `<input>` tag

- The `type` attribute of `<input>` specifies the kind of widget being created

4.1 Widgets

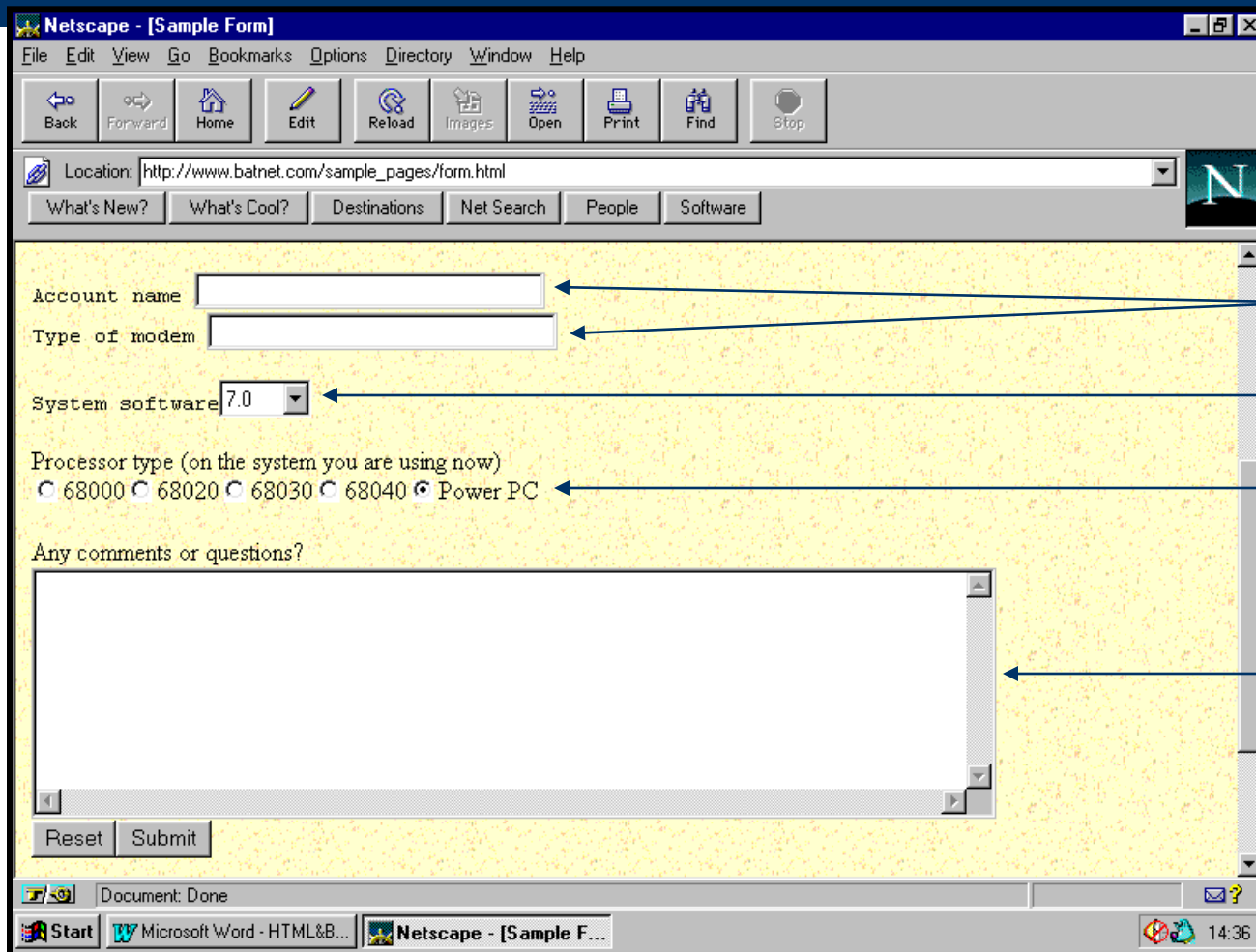
- Many are created with the `<input>` tag
- The `type` attribute of `<input>` specifies the kind of widget being created
- Example:
 - Text
 - Checkbox
 - Radio button
 - Menu
 - Text area
 - Reset and Submit button

Attribute Values

`<input type="value" />`

Value	Description
button	Defines a clickable button (mostly used with a JavaScript to activate a script)
checkbox	Defines a checkbox
file	Defines an input field and a "Browse..." button, for file uploads
hidden	Defines a hidden input field
image	Defines an image as a submit button
password	Defines a password field. The characters in this field are masked
radio	Defines a radio button
reset	Defines a reset button. A reset button clears all data from a form
submit	Defines a submit button. A submit button sends form data to a server
text	Defines a one-line input field that a user can enter text into. Default width is 20 characters

4.1 Widgets (cont)



text

menu

radio button

text area

4.2 Text

- Creates a horizontal box for text input
- Default size is 20; it can be changed with the `size` attribute
- If more characters are entered than will fit, the box is scrolled (shifted) |
- If you don't want to allow the user to type more characters than will fit, set `maxlength`, which causes excess input to be ignored

```
<input type = "text" name = "Phone" size = "12" >
```

- If the contents of text should not be displayed (eg. Password) when user enter the value

```
<input type = "password" name = "myPassword" size = "6" >
```


4.3 Checkbox

- Every checkbox requires a `value` attribute, which is the widget's value in the form data when the checkbox is 'checked'
- A checkbox that is not 'checked' contributes no value to the query string
- By default, no checkbox is initially 'checked'
- To initialize a checkbox to 'checked', the `checked` attribute must be set to "checked"
- Grocery Checklist

```
<form action = "">
```

```
  <p>
```

```
    <input type = "checkbox"  name = "groceries"
          value = "milk"  checked = "checked">
```

```
    Milk
```

```
  <br/>
```

```
  <input type = "checkbox"  name = "groceries"
        value = "bread"> Bread
```

```
  <br/>
```

```
  <input type = "checkbox"  name = "groceries"
        value = "eggs"> Eggs
```

```
  </p>
```

```
</form>
```



Grocery Checklist

Milk Bread Eggs

4.4 Radio button

- Collections of checkboxes in which only one button can be 'checked' at a time
- Every button in a radio button group **MUST** have the same name
- If no button in a radio button group is 'pressed', the browser often 'presses' the first one
- Age Category

```
<form action = "">
  <p>
    <input type = "radio"  name = "age"
           value = "under20" checked = "checked"> 0-19
  <br/>
    <input type = "radio"  name = "age"
           value = "20-35"> 20-35
  <br/>
    <input type = "radio"  name = "age"
           value = "36-50"> 36-50
  <br/>
    <input type = "radio"  name = "age"
           value = "over50"> Over 50
  </p>
</form>
```

4.5 Menu

Created with `<select>` tags

There are two kinds of menus, those that behave like checkboxes and those that

behave like radio buttons (the default)

Menus that behave like checkboxes are specified by including the `multiple` attribute, which must be set to "multiple"

The `name` attribute of `<select>` is required

The `size` attribute of `<select>` can be included to specify the number of menu

items to be displayed (the default is 1)

If `size` is set to `> 1` or if `multiple` is specified, the menu is displayed as a pop-up menu

4.5 Menu (cont)

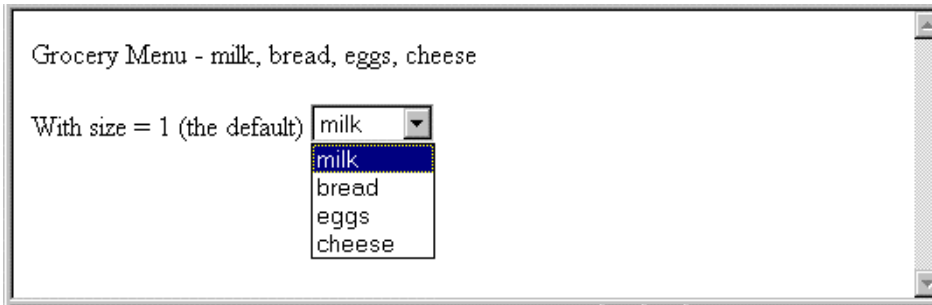
- Each item of a menu is specified with an `<option>` tag, whose pure text content (no tags) is the value of the item
- An `<option>` tag can include the `selected` attribute, which when assigned "selected" specifies that the item is preselected
- Grocery Menu - milk, bread, eggs, cheese

```
<form action = "">
<select name = "groceries">
    <option> milk </option>
    <option> bread </option>
    <option> eggs </option>
    <option> cheese </option>
</form>
```

4.5 Menu (cont)



- After clicking the menu:



- After changing size to 2:



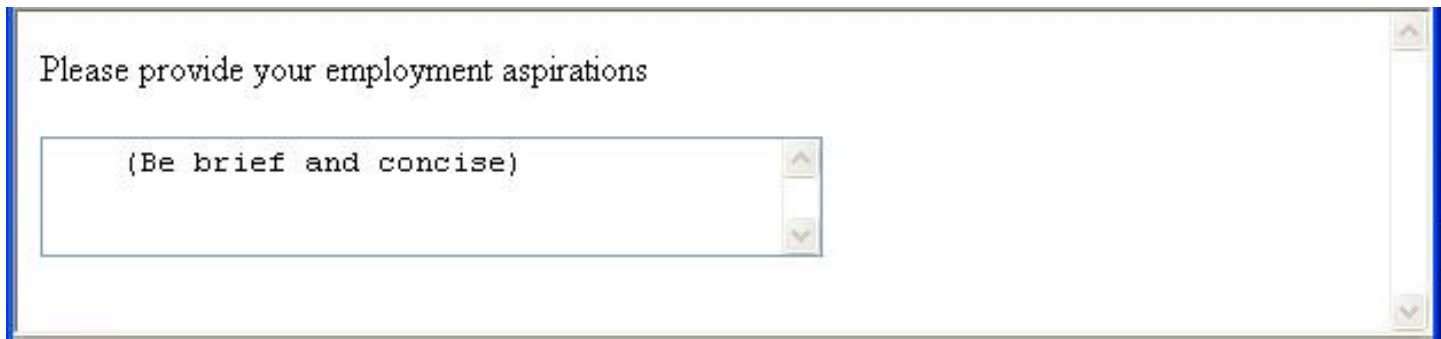
4.6 Text area

- Created with `<textarea>`
- Usually include the `rows` and `cols` attributes to specify the size of the text area
- Default text can be included as the content of `<textarea>`
- Scrolling is implicit if the area is overfilled

4.6 Text area (cont)

Please provide your employment aspirations

```
<form action = "">
  <p>
    <textarea name = "aspirations"  rows = "3"
              cols = "40">
      (Be brief and concise)
    </textarea>
  </p>
</form>
```



Please provide your employment aspirations

(Be brief and concise)

4.7 Reset and Submit button

- Both are created with `<input>`

```
<input type = "reset" value = "Reset Form">  
<input type = "submit" value = "Submit Form">
```

- Submit has two actions:

1. Encode the data of the form
2. Request that the server execute the server-resident program specified as the value of the `action` attribute of `<form>`

- A Submit button is required in every form
- Reset button will clear/empty all the input field (set to default)


```
<form action = "submit_save.php">
<input type = "radio" name = "age"
value = "under20" checked = "checked"> 0-19
<br/>
<input type = "radio" name = "age"
value = "20-35"> 20-35
<br/>
<input type = "radio" name = "age"
value = "36-50"> 36-50
<br/>
<input type = "radio" name = "age"
value = "over50"> Over 50
</form>
```

```
<html>
<head><title>Your Title</title>
</head>
<body>
<form action = "submit_save.php">
<input type = "radio" name = "age"
  value = "under20" checked = "checked"> 0-19
<br/>
<input type = "radio" name = "age"
  value = "20-35"> 20-35
<br/>
<input type = "radio" name = "age"
  value = "36-50"> 36-50
<br/>
<input type = "radio" name = "age"
  value = "over50"> Over 50
<input type = "reset" value = "Reset Form">
<input type = "submit" value = "Submit Form">

</form>
</body>
</html>
```

```
<form action = "submit_save.php ">
<select name = "groceries">
    <option> milk </option>
    <option> bread </option>
    <option> eggs </option>
    <option> cheese </option>
</select>
</form>
```

```
<html>
<head><title>Your Title</title>
</head>
<body>
<form action = "submit_save.php ">
<select name = "groceries">
    <option> milk </option>
    <option> bread </option>
    <option> eggs </option>
    <option> cheese </option>
</select>
<input type = "reset" value = "Reset Form">
<input type = "submit" value = "Submit Form">

</form>
</body>
</html>
```

```
<html>
<head><title>Your Title</title>
</head>
<body>
<form action = "submit_save.php ">
<input type = "text" name = "Phone" size =
  "12" >
<input type = "password" name = "myPassword"
  size = "6" >
<input type = "submit" value = "Submit Form">
</form>
</body>
</html>
```

Account name

Type of modem

System software

 ▼

Processor type (on the system you are using now)

- 68000 68020 68030 68040 Power PC

Any comments or questions?

Reset

Submit