

# FORMS IN HTML

- A form is the usual way information is gotten from a browser to a server
- HTML has tags to create a collection of objects that implement this information gathering
  - The objects are called *widgets* (e.g., radio buttons and checkboxes)
- 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
  - 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.pl"`

- If the form has no `action`, the value of `action` is the empty string
- The `method` attribute of `<form>` specifies one of the two possible techniques of transferring the form data to the server, `get` and `post`
  - `get` and `post` are discussed in Chapter 10
- *Widgets*
  - Many are created with the `<input>` tag
    - The `type` attribute of `<input>` specifies the kind of widget being created
      - 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) left
    - 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" >
```

## 2. *Checkboxes* - to collect multiple choice input

- 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 form data
- By default, no checkbox is initially 'checked'
- To initialize a checkbox to 'checked', the `checked` attribute must be set to `"checked"`

❑ *Widgets (continued)*

Grocery Checklist

```
<form action = "">
  <p>
    <input type = "checkbox" name = "groceries"
      value = "milk" checked = "checked">
    Milk
    <input type = "checkbox" name = "groceries"
      value = "bread">
    Bread
    <input type = "checkbox" name = "groceries"
      value = "eggs">
    Eggs
  </p>
</form>
```



3. *Radio Buttons* - 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

■ *Widgets (continued)*

3. *Radio Buttons (continued)*

- ❑ 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
<input type = "radio" name = "age"
value = "20-35"> 20-35
<input type = "radio" name = "age"
value = "36-50"> 36-50
<input type = "radio" name = "age"
value = "over50"> Over 50
</p>
</form>

```

The screenshot shows a web browser window with a form titled "Age Category". Below the title, there are four radio button options: "0-19", "20-35", "36-50", and "Over 50". The "0-19" option is selected, indicated by a filled green circle next to it.

#### 4. Menus - 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

#### Menus (continued)

- 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 = "">
```

```
<p>
```

```
With size = 1 (the default)
```

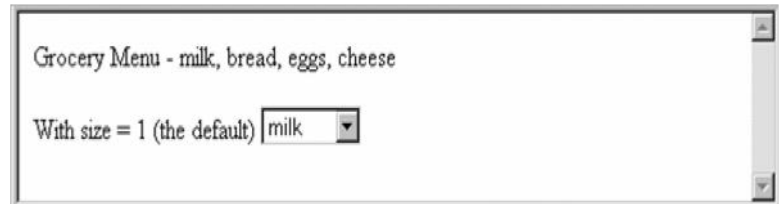
```
<select name = "groceries">
```

```
<option> milk </option>
```

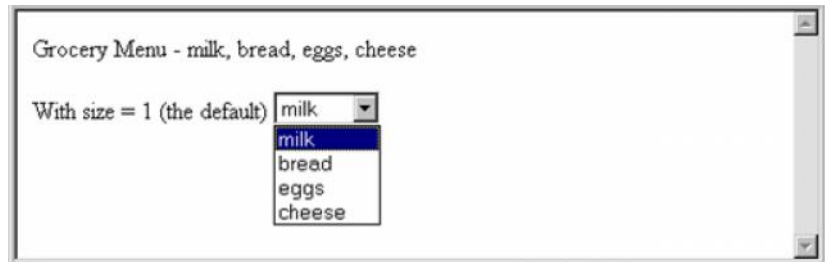
```
<option> bread </option>
```

```
<option> eggs </option>
<option> cheese </option>
</select>
</p>
</form>
```

- **Widgets (continued)**



■ **After clicking the menu:**



■ **After changing size to 2:**



- *Widgets (continued)*

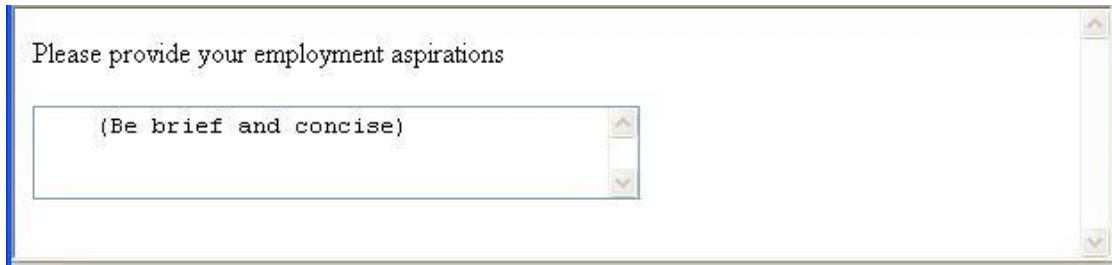
5. Text areas - created with <textarea>

- 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

Please provide your employment aspirations

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

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

A screenshot of a web browser window. The main content area is light green and contains the text "Please provide your employment aspirations". Below this text is a text area with a white background and a blue border. The text area contains the text "(Be brief and concise)". The text area has a vertical scrollbar on its right side. The browser's address bar and other UI elements are not visible.

■ *Widgets (continued)*

6. Reset and Submit buttons

□ 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>`
3. A Submit button is required in every form

--> SHOW popcorn.html and display it