



Web Technologies and Programming

Lecture 10

HTML FORMS

Summary of the previous lecture

- **Creating tables in HTML**
- **Table attributes**
 - Table level attributes
 - Row level attributes
 - Cell level attributes
- **Page lay-out using tables**

Outline

- **HTML FORMS**
- **HTML FORM elements**

1. HTML FORMS

- **HTML forms** are used to collect user input.
- **HTML forms** contain **form elements**.
- **Form elements are** different types of input elements, checkboxes, radio buttons, submit buttons, and more.

1. HTML FORMS

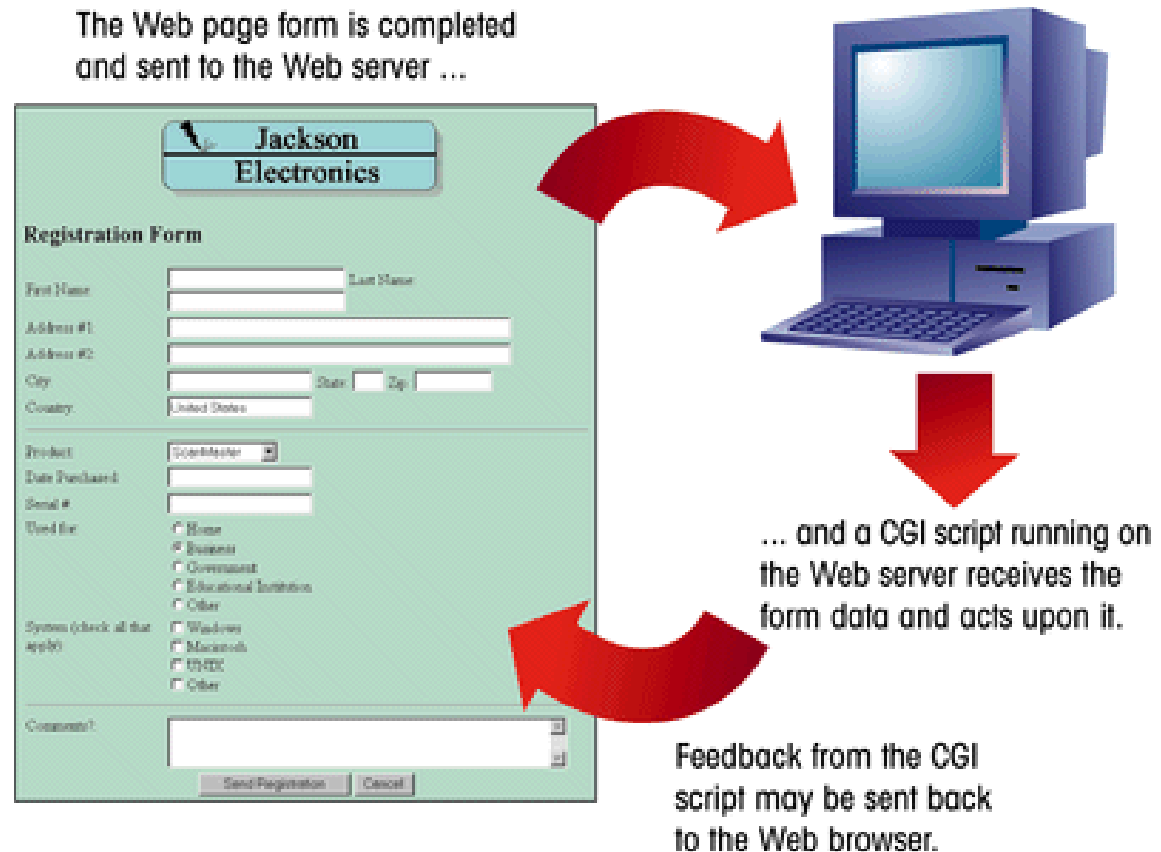
- The **<form>** element defines an HTML form:
- `<form>`
 - *form elements*
 - `</form>`

1. HTML FORMS

- Forms provide a means of submitting information from the client to the server
- HTML supports tags for creating forms, however, it does not process the information
- Use server-side script to process form information
- Server-side script runs on the Web server and receives data from a form and uses it to perform a set of tasks

1. HTML FORMS...

This figure shows how a Web page form interacts with a CGI script.



1. HTML FORMS...

- **<form>** tag is used to start a form
- **</form>** tag is used to end a form
- Between **<form>** and **</form>**, **form elements** are placed
- We can declare a form as:
 <form attributes>
 form elements and layout tags
 </form>
- A single page can include several different forms, but you cannot nest one form inside another

1. HTML FORMS...

- **Common Form Attributes:**
- **action** - gives the URL of the application that is to receive and process the forms data
- **method** - sets the HTTP method that the browser uses to send the form's data to the server for processing; Either POST or GET
- **name** – name of the form

1. HTML FORMS...

- **When to Use GET?**
- **You can use GET (the default method):**
- **If the form submission is passive** (like a search engine query), and without sensitive information.
- **When you use GET**, the form data will be visible in the page address.

1. HTML FORMS...

- **When to Use POST?**
- You should use POST:
- **If the form is updating data**, or includes sensitive information (password).
- **POST offers better** security because the submitted data is not visible in the page address.

1. HTML FORMS...

- **GET**
- Requests data from a specified resource
- GET requests can be cached
- GET requests remain in the browser history
- GET requests can be bookmarked
- GET requests should never be used when dealing with sensitive data
- GET requests have length restrictions
- GET requests should be used only to retrieve data

1. HTML FORMS...

- **POST**
- Submits data to be processed to a specified resource
- POST requests are never cached
- POST requests do not remain in the browser history
- POST requests cannot be bookmarked
- POST requests have no restrictions on data length

2. Form Elements

- **Textbox**
- **Password Field**
- **Hidden Field**
- **Checkbox**
- **Radio Button**
- **Text Area**
- **Select List**
- **Submit Button**
- **Reset Button**

2.1 Text box

<INPUT TYPE="TEXT" >

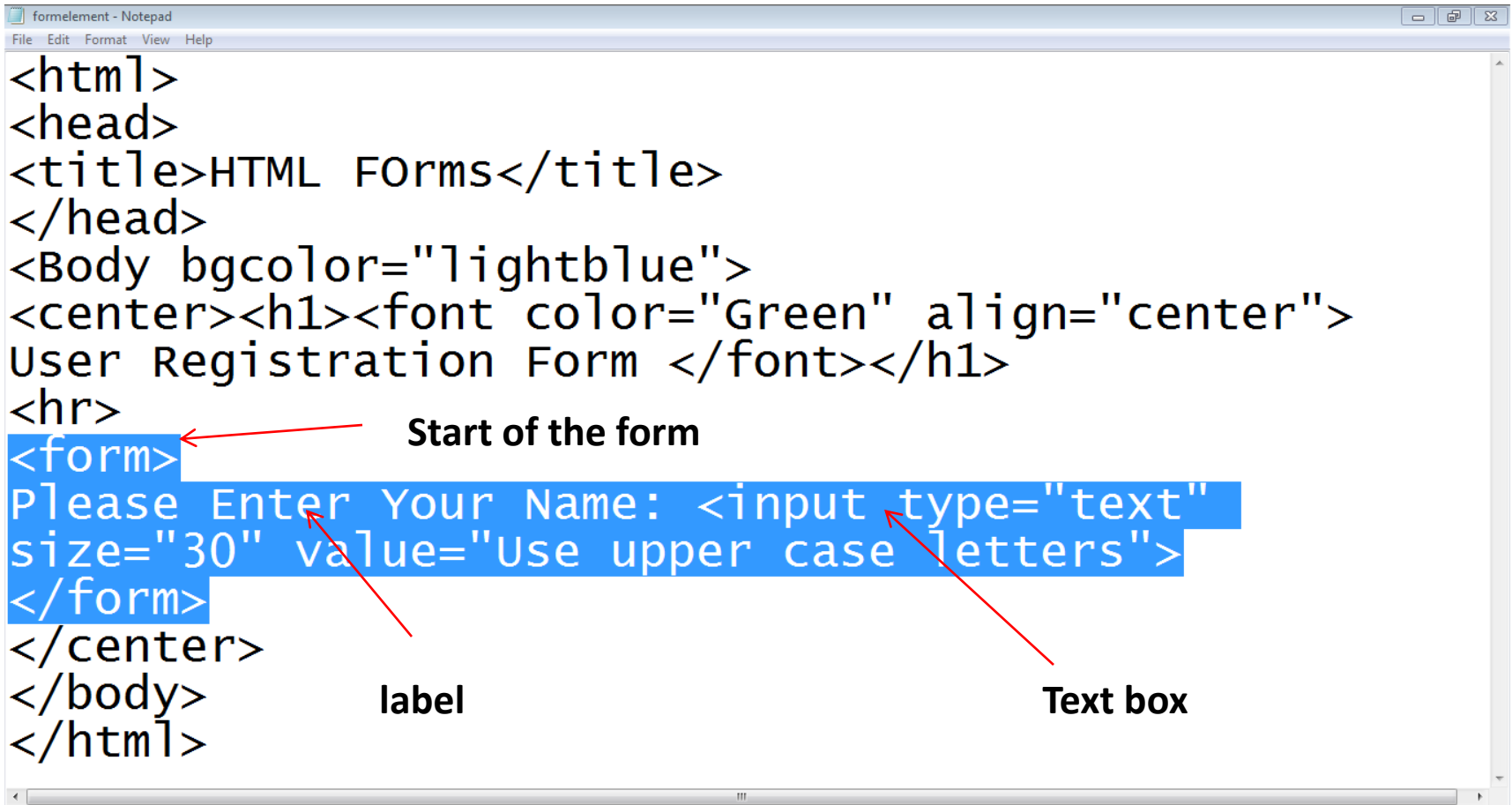
- NAME**
- SIZE**
- VALUE**
- MAXLENGTH**

**<INPUT TYPE="TEXT" NAME=NAME SIZE=30 VALUE="ALI"
MAXLENGTH=15>**

2.1 Text box

- `<input type="submit">` defines a button for **submitting** a form to a **form-handler**.
- **The form-handler** is typically a server page with a script for processing input data.

2.1 Text box...



```
<html>
<head>
<title>HTML Forms</title>
</head>
<Body bgcolor="lightblue">
<center><h1><font color="Green" align="center">
User Registration Form </font></h1>
<hr>
<form>
Please Enter Your Name: <input type="text"
size="30" value="Use upper case letters">
</form>
</center>
</body>
</html>
```

Start of the form

label

Text box

2.1 Text box...

The screenshot shows a web browser window titled 'HTML Forms - Google Chrome'. The address bar displays a file path: `file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2016%20(HTML%20forms)/examples/formelement.i`. The main content area has a light blue background and features the title 'User Registration Form' in a large, bold, green serif font. Below the title is a horizontal line. Underneath the line, the text 'Please Enter Your Name:' is displayed in a dark blue serif font. To the right of this text is a white text box containing the text 'Use upper case letters'. Three red arrows point from labels below to the form elements: one from the label 'label' to the text 'Please Enter Your Name:', one from the label 'Text box' to the text box itself, and one from the label 'value' to the text 'Use upper case letters' inside the text box.

HTML Forms - Google Chrome

file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2016%20(HTML%20forms)/examples/formelement.i

User Registration Form

Please Enter Your Name: Use upper case letters

label

Text box

value

2.2 Password Field

- **<INPUT TYPE="PASSWORD">**
 - NAME
 - SIZE
 - VALUE
 - MAXLENGTH

**<INPUT TYPE="PASSWORD" NAME=NAME SIZE=30 VALUE="ALI"
MAXLENGTH=15>**

Note: The characters in a password field are masked (shown as asterisks or circles).

2.2 Password Field...

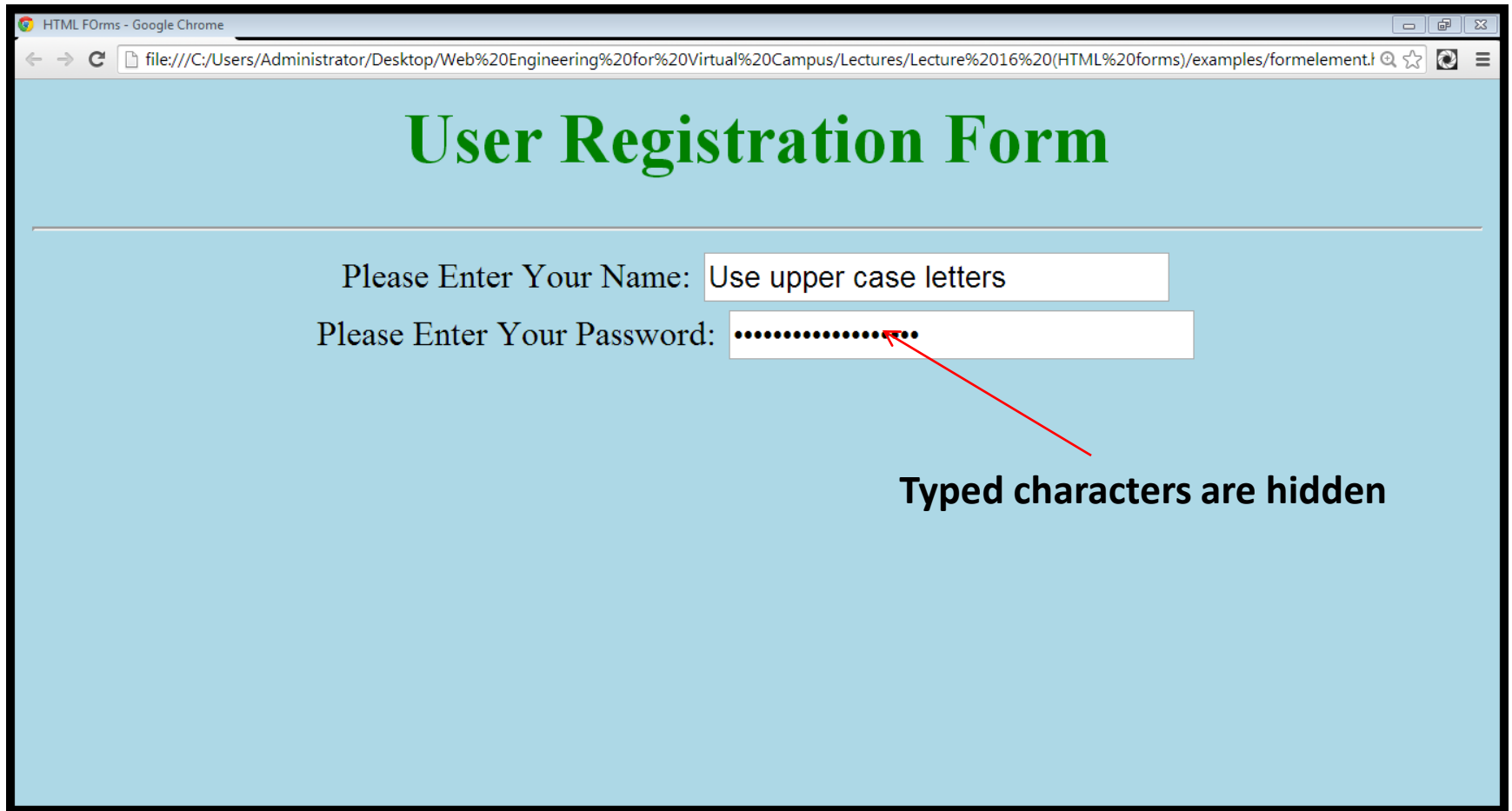
```
formelement - Notepad
File Edit Format View Help

</head>
<Body bgcolor="lightblue">
<center><h1><font color="Green" align="center">
User Registration Form </font></h1>
<hr>
<form>
Please Enter Your Name: <input type="text"
size="30" value="Use upper case letters"><br>

Please Enter Your Password: <input type="password"
size="30" value="minimum of length 6">
</form>
</center>
</body>
</html>
```

Type is password

2.2 Password Field...



HTML Forms - Google Chrome

file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2016%20(HTML%20forms)/examples/formelement.html

User Registration Form

Please Enter Your Name: Use upper case letters

Please Enter Your Password:

Typed characters are hidden

2.3 Hidden Text Field

- **<INPUT TYPE="HIDDEN">**
 - NAME
 - VALUE

<INPUT TYPE="HIDDEN" NAME=NAME VALUE="ALI" >

2.3 Hidden Text Field...

```
formelement - Notepad
File Edit Format View Help

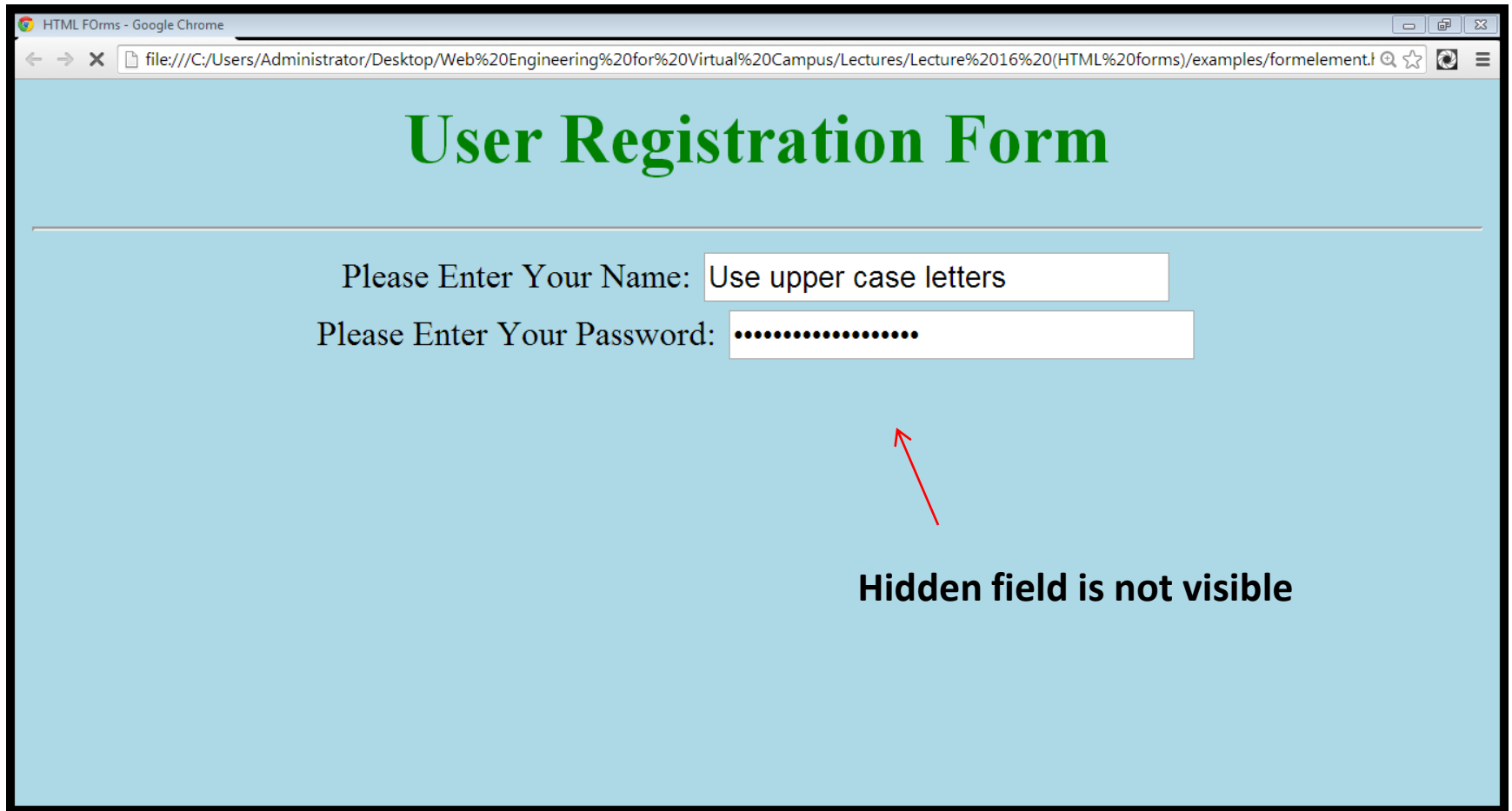
<center><h1><font color="Green" align="center">
User Registration Form </font></h1>
<hr>
<form>
Please Enter Your Name: <input type="text"
size="30" value="Use upper case letters"><br>

Please Enter Your Password: <input type="password"
size="30" value="minimum of length 6">

<input type="hidden" value="Ali" name="name">
</form>
</center>
</body>
</html>
```

Type is hidden

2.3 Hidden Text Field...



The screenshot shows a web browser window titled "HTML FOrms - Google Chrome". The address bar displays a file path: `file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2016%20(HTML%20forms)/examples/formelement.html`. The main content area has a light blue background and features the title "User Registration Form" in a large, green, serif font. Below the title, there are two input fields. The first field is labeled "Please Enter Your Name:" and contains the text "Use upper case letters". The second field is labeled "Please Enter Your Password:" and contains a series of black dots, indicating a hidden password field. A red arrow points from the text "Hidden field is not visible" to the password field.

User Registration Form

Please Enter Your Name: Use upper case letters

Please Enter Your Password:

Hidden field is not visible

2.4 Checkbox

<INPUT TYPE="CHECKBOX">

- CHECKED
- NAME
- VALUE

<INPUT TYPE="CHECKBOX" NAME="CHECK" VALUE=" CHECKED">

Checkboxes let a user select ZERO or MORE options of a limited number of choices.

2.4 Checkbox...

```
formelement - Notepad
File Edit Format View Help

Please Enter Your Password: <input type="password"
size="30" value="minimum of length 6">

<input type="hidden" value="Ali" name="name">
<br>
Which languages do you know?<br>
C++ <input type="checkbox" value="C" name="C"
checked>
VB <input type="checkbox" value="VB" name="VB">
Java<input type="checkbox" value="java" name="java">
</form>
</center>
</body>
</html>
```

The diagram illustrates the HTML code for a form. It shows a password field, a hidden input, and three checkboxes. Red arrows point from labels to specific attributes in the code:

- label**: Points to the text "Which languages do you know?"
- Type**: Points to the `type="checkbox"` attribute in the C++ checkbox code.
- value**: Points to the `value="C"` attribute in the C++ checkbox code.
- checked**: Points to the `checked` attribute in the C++ checkbox code.
- option**: Points to the `checked` attribute in the VB checkbox code.

2.4 Checkbox...

HTML FOrms - Google Chrome

file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2016%20(HTML%20forms)/examples/formelement.html

User Registration Form

Please Enter Your Name:

Please Enter Your Password:

Which languages do you know?

C++ ☒ VB ☐ Java ☐

label

Options

Already checked

The image shows a web browser window with a file path in the address bar. The page title is 'User Registration Form'. The form contains three main sections: a name input field with a placeholder 'Use upper case letters', a password input field with masked characters '.....', and a multiple-choice question 'Which languages do you know?'. The question has three options: 'C++' with a checked checkbox, 'VB' with an unchecked checkbox, and 'Java' with an unchecked checkbox. Red arrows are used as annotations: one points from the word 'label' to the question text, another from 'Options' to the language names and checkboxes, and a third from 'Already checked' to the checked checkbox for C++.

2.5 Radio Buttons

- **<INPUT TYPE="RADIO">**
 - CHECKED
 - NAME
 - VALUE

<INPUT TYPE="RADIO" NAME="RADIO" VALUE="" CHECKED>MALE

<INPUT TYPE="RADIO" NAME="RADIO" VALUE="" >FEMALE

Radio buttons let a user select ONLY ONE of a limited number of choices:

2.5 Radio Buttons...

```
formelement - Notepad
File Edit Format View Help
size="30" value="minimum of length 6">
<input type="hidden" value="Ali" name="name">
<br>
which languages do you know?<br>
C++ <input type="checkbox" value="C" name="C"
checked>
VB <input type="checkbox" value="VB" name="VB">
Java<input type="checkbox" value="java" name="java">
<br>
Your Gender?<br>
Male<input type="radio" name="gender" value="M"
checked>
Fe-Male<input type="radio" name="gender" value="F">
```

Diagram illustrating the HTML code for radio buttons:

- label**: Points to "Your Gender?"
- Option**: Points to "Male"
- type**: Points to "radio" in the first radio button code
- Same name**: Points to "gender" in both radio button code snippets

2.5 Radio Buttons...

HTML FOrms - Google Chrome

file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2016%20(HTML%20forms)/examples/formelement.html

User Registration Form

Please Enter Your Name:

Please Enter Your Password:

Which languages do you know?

C++ ☒ VB ☐ Java ☐

Your Gender?

Male ☒ Fe-Male ☐

Already checked

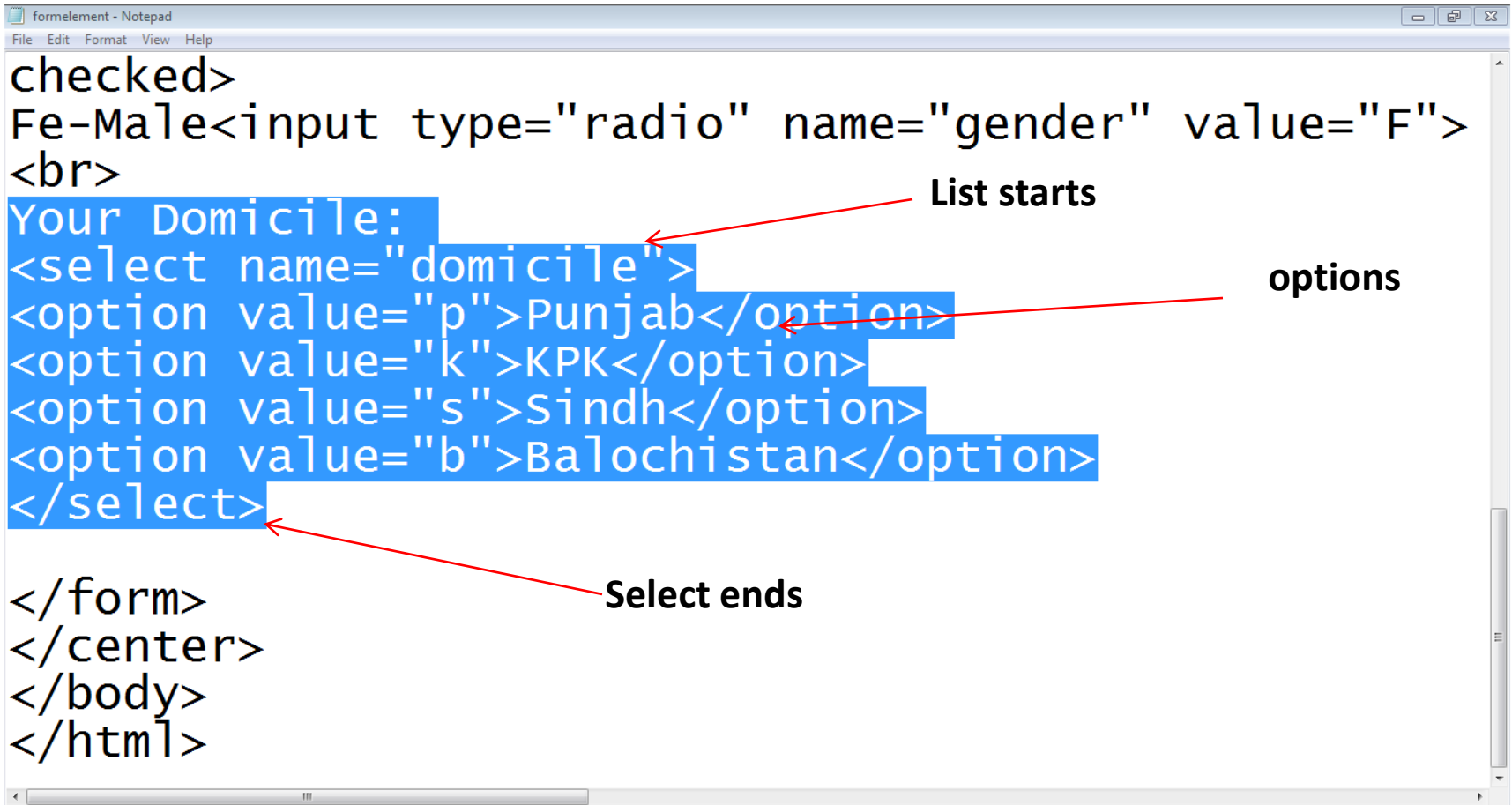
Radio Button

2.6 Select list

- **Drop down list:**
- **Select**
 - Name, size
- **Option**

```
<SELECT name="name" size="size">  
<OPTION value="lahore">LAHORE</option>  
<OPTION value="karachi">KARACH</option>  
<OPTION value="islamabad">ISLAMABAD</option>  
</SELECT>
```

2.6 Select list...



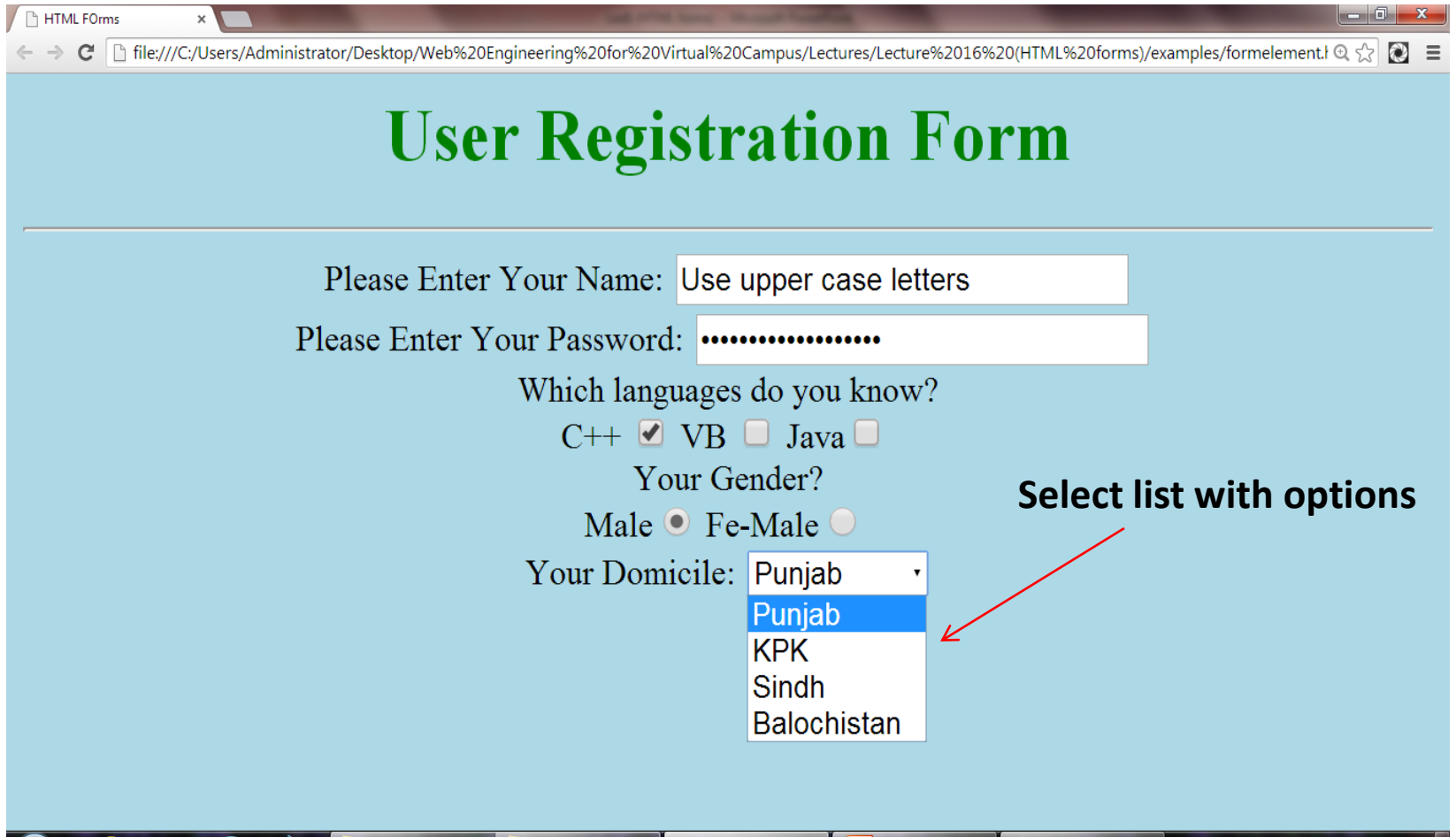
```
formelement - Notepad
File Edit Format View Help
checked>
Fe-Male<input type="radio" name="gender" value="F">
<br>
Your Domicile:
<select name="domicile">
<option value="p">Punjab</option>
<option value="k">KPK</option>
<option value="s">Sindh</option>
<option value="b">Balochistan</option>
</select>
</form>
</center>
</body>
</html>
```

List starts

options

Select ends

2.6 Select list...



The screenshot shows a web browser window with a single tab titled 'HTML Forms'. The address bar displays a file path: `file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2016%20(HTML%20forms)/examples/formelement.html`. The page content is a 'User Registration Form' on a light blue background. The form includes the following elements:

- Title:** 'User Registration Form' in a large green serif font.
- Name Field:** Labeled 'Please Enter Your Name:' followed by a text input box containing the text 'Use upper case letters'.
- Password Field:** Labeled 'Please Enter Your Password:' followed by a password input box filled with dots.
- Languages:** Labeled 'Which languages do you know?' with three checkboxes: 'C++' (checked), 'VB' (unchecked), and 'Java' (unchecked).
- Gender:** Labeled 'Your Gender?' with two radio buttons: 'Male' (selected) and 'Fe-Male' (unselected).
- Domicile:** Labeled 'Your Domicile:' followed by a dropdown menu. The menu is open, showing a list of options: 'Punjab' (highlighted in blue), 'KPK', 'Sindh', and 'Balochistan'.

A red arrow points from the text 'Select list with options' to the dropdown menu.

2.6.1 Creating scrolling select list

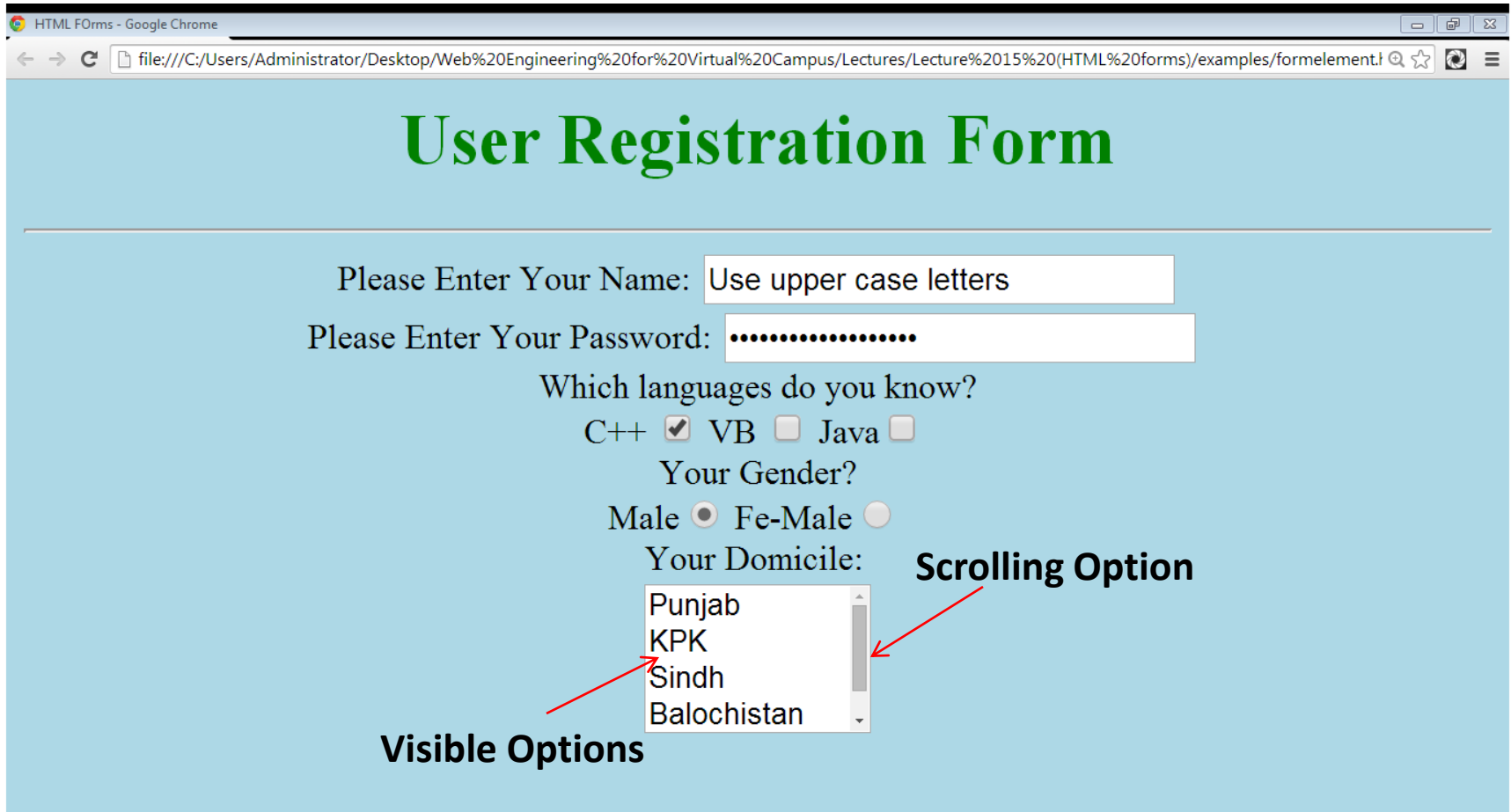
- To create scrolling select list, we use the **size** attribute of the **<select>**
- The **value** of the size attribute is the **number of options** you want to be **visible** at any one time

2.6.1 Creating scrolling select list

```
formelement - Notepad
File Edit Format View Help
<br>
Your Gender?<br>
Male<input type="radio" name="gender" value="M"
checked>
Fe-Male<input type="radio" name="gender" value="F">
<br>
Your Domicile: <br>
<select name="domicile" size="4">
<option value="p">Punjab</option>
<option value="k">KPK</option>
<option value="s">Sindh</option>
<option value="b">Balochistan</option>
<option value="g">Gilgit Balitistan</option>
</select>
```

Size attribute

2.6.1 Creating scrolling select list



The screenshot shows a web browser window titled 'HTML FOrms - Google Chrome'. The address bar displays a file path: `file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2015%20(HTML%20forms)/examples/formelement1`. The main content area has a light blue background and features a form titled 'User Registration Form' in green text.

The form contains the following elements:

- A text input field labeled 'Please Enter Your Name:' with a hint 'Use upper case letters'.
- A password input field labeled 'Please Enter Your Password:' with masked characters (dots).
- A question 'Which languages do you know?' followed by three radio buttons: 'C++' (checked), 'VB', and 'Java'.
- A question 'Your Gender?' followed by two radio buttons: 'Male' (selected) and 'Fe-Male'.
- A question 'Your Domicile:' followed by a scrolling select list.

The scrolling select list for 'Your Domicile' shows four visible options: 'Punjab', 'KPK', 'Sindh', and 'Balochistan'. A red arrow points to the list box with the label 'Visible Options'. Another red arrow points to the scrollbar with the label 'Scrolling Option'.

2.7 Text area

- **Text-area**
- The **<textarea>** element defines a multi-line input field (a **text area**):
 - Rows
 - Cols
 - Name

<TEXTAREA rows="5" cols="5">

Default text

</TEXTAREA>

2.7 Text area...

```
formelement - Notepad
File Edit Format View Help

<select name="domicile">
<option value="p">Punjab</option>
<option value="k">KPK</option>
<option value="s">Sindh</option>
<option value="b">Balochistan</option>
</select>
<br>
Your Address:<br>
<textarea rows=5 cols=30>Your permanent address
</textarea>

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

2.7 Text area...

HTML Forms - Google Chrome

file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2016%20(HTML%20forms)/examples/formelement!

User Registration Form

Please Enter Your Name:

Please Enter Your Password:

Which languages do you know?

C++ ☒ VB ☐ Java ☐

Your Gender?

Male ☒ Fe-Male ☐

Your Domicile:

Your Address:

Text area

2.8 File field

- File-field

`<input type="file" name="file-name">`

2.8 File field...

```
formelement - Notepad
File Edit Format View Help

<option value="k">KPK</option>
<option value="s">Sindh</option>
<option value="b">Balochistan</option>
</select>
<br>
Your Address:<br>
<textarea rows=5 cols=30>Your permanent address
</textarea>
<br>
Attach you CV: <input type="file" name="CV">

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

2.8 File field...

HTML FOrms - Google Chrome

file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2016%20(HTML%20forms)/examples/formelement.html

Please Enter Your Name:

Please Enter Your Password:

Which languages do you know?

C++ ☒ VB ☐ Java ☐

Your Gender?

Male ☒ Fe-Male ☐

Your Domicile:

Your Address:

Attach you CV: No file chosen

Open

Desktop

Organize New folder

Search Desktop

Favorites

- Desktop
- Downloads
- Dropbox
- Recent Places

Libraries

- Documents
- Music
- Pictures
- Videos

Computer

- WIN_7 (C:)
- Local Disk (D:)

Libraries

- System Folder
- Administrator System Folder
- Computer System Folder
- Network System Folder
- Adobe Reader 8 Shortcut 1.93 KB
- FLVPlayer Shortcut 807 bytes

File name:

All Files

Open Cancel

2.9 Submit and Reset buttons

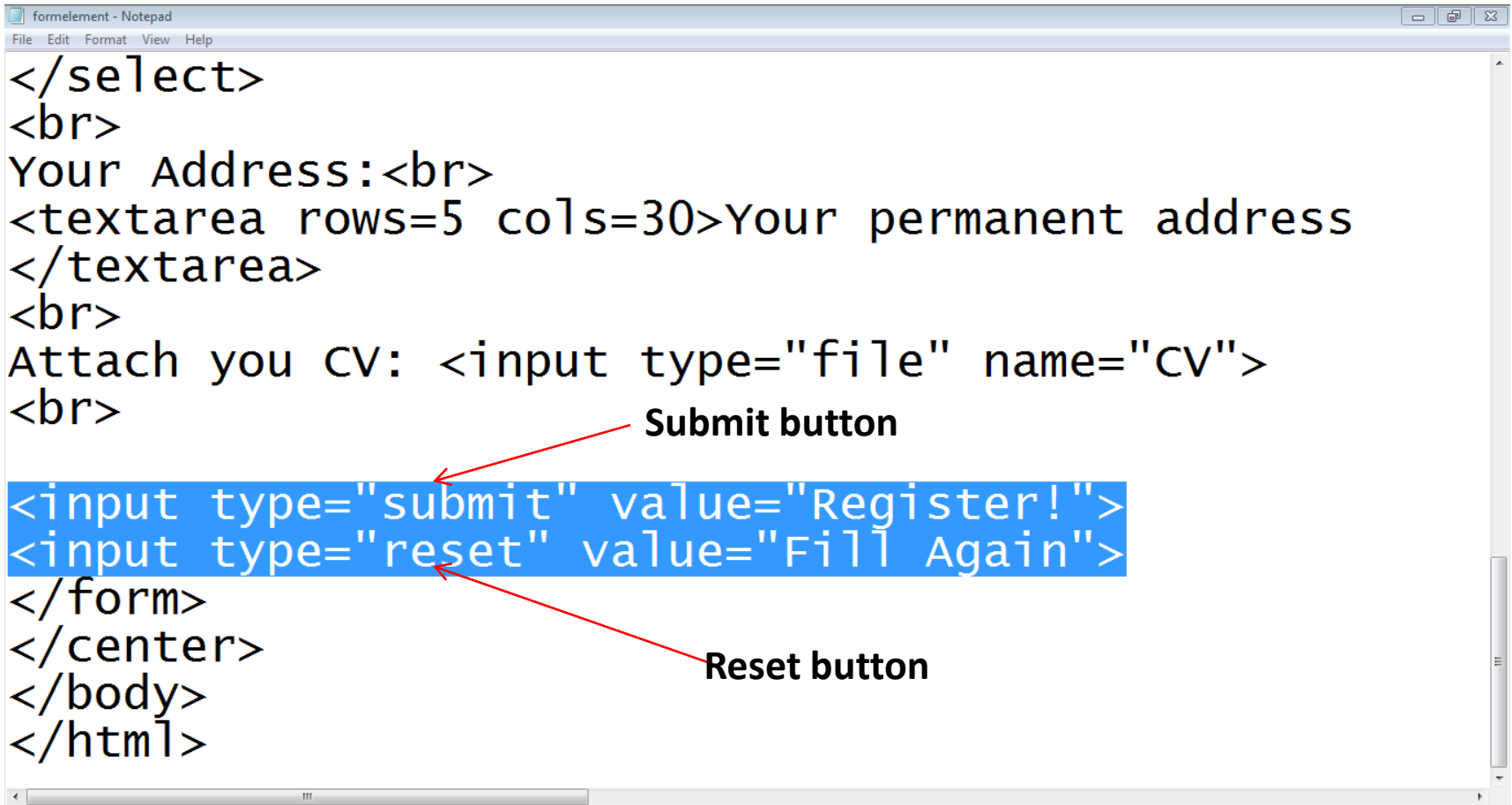
- **Submit and Reset Buttons**

<INPUT TYPE="SUBMIT" VALUE="SAVE">

<INPUT TYPE="RESET" VALUE="RESET">

- **<input type="submit">** defines a button for **submitting** form input to a **form-handler**.
- The form-handler is typically a server page with a script for processing input data.

2.9 Submit and Reset buttons...



```
</select>
<br>
Your Address:<br>
<textarea rows=5 cols=30>Your permanent address
</textarea>
<br>
Attach you CV: <input type="file" name="CV">
<br>
<input type="submit" value="Register!">
<input type="reset" value="Fill Again">
</form>
</center>
</body>
</html>
```

Submit button

Reset button

2.9 Submit and Reset buttons...

HTML Forms - Google Chrome

file:///C:/Users/Administrator/Desktop/Web%20Engineering%20for%20Virtual%20Campus/Lectures/Lecture%2016%20(HTML%20forms)/examples/formelement!

Please Enter Your Name:

Please Enter Your Password:

Which languages do you know?

C++ ☒ VB ☐ Java ☐

Your Gender?

Male ☒ Fe-Male ☐

Your Domicile:

Your Address:

Attach you CV: No file chosen

Submit → ← **Reset**

Summary

- **HTML5 added several new input types:**
- color
- date
- Datetime
- email
- month
- number
- range
- search
- tel
- time
- url
- week

Summary - input

- **HTML5 added the following attributes for <input>:**
- **autocomplete**
- **autofocus**
- **form**
- **formaction**
- **formenctype**
- **formmethod**
- **formnovalidate**
- **formtarget**
- **height and width**
- **list**
- **min and max**
- **multiple**
- **pattern (regexp)**
- **placeholder**
- **required**

Summary - attributes for input

- **HTML5 added the following attributes for <input>:**
- **the following attributes for <form>:**
- **autocomplete**
- **novalidate**

Summary

- **Creating forms in HTML**
- **Adding form elements**

THANK YOU