

# Web Technology – CACS205

BCA 3<sup>rd</sup> Semester



# Hyper Text Markup Language (HTML)



2

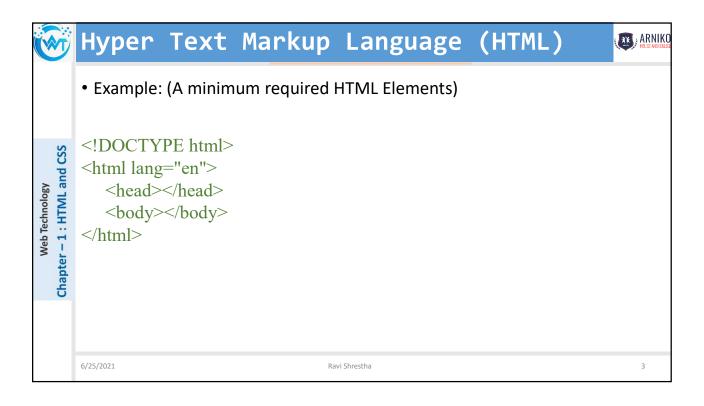
- A markup language specifies the layout and style of a document.
- A markup language consists of a set of markup tags.
- HTML uses markup tags to describe web pages.
- HTML tags are keywords surrounded by angle brackets like <html>.
- HTML tags normally come in pairs like <b> and </b>. The first tag is called the start tag (or opening tag) and the second tag is called the end tag (or closing tag).
- HTML documents describe Web pages and contains HTML tags and plain text.
- Web browser read HTML documents and renders them as Web pages. The browser does not display the HTML tags, but uses the tags to interpret the content of the page.

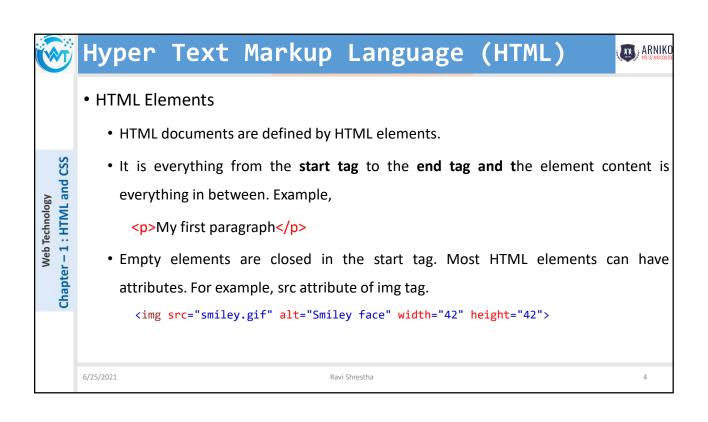
6/25/2021

Ravi Shrestha

1

# Web Technology Chapter - 1: HTML and CSS







Chapter - 1: HTML and CSS

# Hyper Text Markup Language (HTML)



## HTML Attributes

- Attributes provide additional information about HTML elements.
- Attributes are always specified in the start tag.
- Attributes come in name/value pair like name = "value".
- For example, HTML links are defined with <a> tag and the link address is provided as
  an attribute href like

<a href = "http://www.mycollege.edu.np">My College</a>.

6/25/2021

Ravi Shrestha

(WT)

Chapter - 1: HTML and CSS

# Hyper Text Markup Language (HTML)



6

5

### HTML Colors

- HTML colors are displayed using RED, GREEN, and BLUE light. Colors are defined using hexadecimal (hex) notation for combination of red, green, and blue color values (RGB). The lowest value that can be given to one of the light sources is 0 (hex 00) and the highest values is 255 (hex FF). We can use HEX (e.g. #2000FF) as well as RGB (e.g. rgb(32, 0, 255)) values to define different colors.
- The combination of Red, Green and Blue values from 0 to 255 gives a total of more than 16 million different colors to play with (256 x 256 x 256).
- We can also use color names instead of hex and rgb values. The World Wide Web Consortium (W3C) has listed 16 valid color names for HTML and CSS: aqua, black, blue, fuchsia, gray, green, lime, maroon, navy, olive, purple, red, silver, teal, white, and yellow.

6/25/2021

Ravi Shrestha

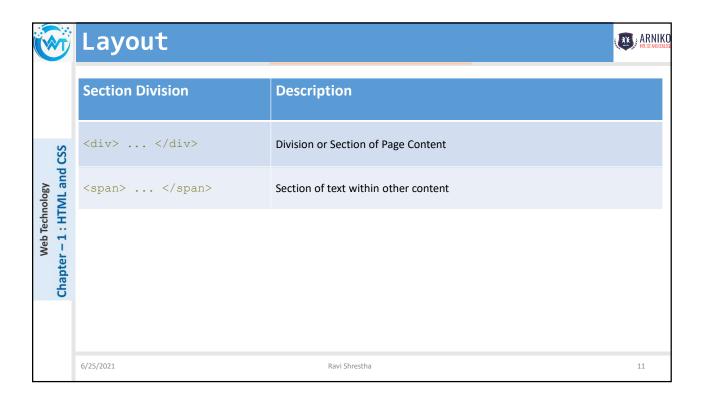
# **HTML Elements**

6/25/2021 Ravi Shrestha

<b>₩</b> Ţ	Basic Element	:S	ARNIKO MTLSS AND COLLEGE
	Basic	Description	
	<html> </html>	The HTML <a href="html">html</a> element represents the root (top-level element) of HTML document, so it is also referred to as the root element. All ot elements must be descendants of this element	
ind CSS	<head> </head>	The HTML <head> element contains machine-readable informat (metadata) about the document, like its title, scripts, and style sheets.</head>	cion
Web Technology - 1: HTML and	<title> </title>	Puts name of the document in the title bar; when bookmarking pages, this is what is bookmarked	
Veb Te - 1:	<body> </body>	Sets off the visible portion of the document	
v Chapter	<meta/>	Represents metadata that cannot be represented by other HTML meta-related elements, like <base/> , <li>link&gt;, <script>, <style> or <title> and basically used by search engines.</th><th></th></tr><tr><th></th><th><! Write your comments here></th><th>Comments</th><th></th></tr><tr><th></th><td>6/25/2021</td><td>Ravi Shrestha</td><td>8</td></tr></tbody></table></script></li>	

	<b>1</b>	Text Formatti	ng	ARNIKO WILSS AND COLLEGO
		Text Formatting	Description	
		<h1> </h1> <h6> </h6>	Heading (h1 h2 h3 h4 h5 h6) h1 largest - h6 smallest	
	d CSS	<b> </b>	Make text between tags bold	
logy	1: HTML and	<i> </i>	Italic Text	
Web Technology	H.	<u> </u>	Underline Text	
Web.	r-1	<strike> </strike>	Strikeout	
	Chapter –	<sup> </sup>	Superscript - Smaller text placed below normal text	
		<sub> </sub>	Subscript - Smaller text placed below normal text	
		6/25/2021	Ravi Shrestha	9

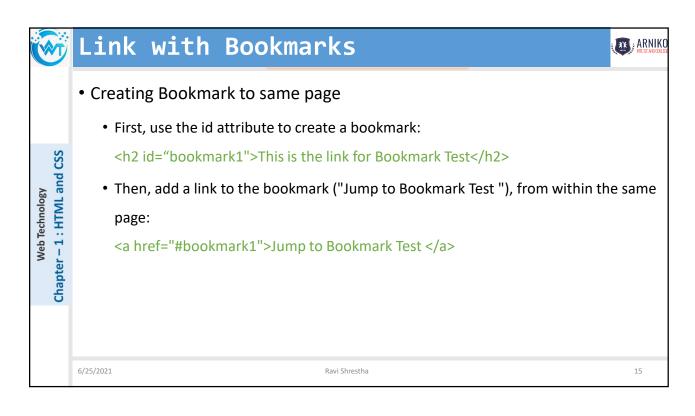
	Text Formatting				
	Text Formatting	Description			
	<small> </small>	Small - Fineprint size text			
d CSS	<tt> </tt>	Typewriter Text			
		Pre-formatted Text			
Web Technology	    /blockquote>	Text Block Quote			
Fechn HT	<strong> </strong>	Strong - Shown as Bold in most browsers			
Web 7	(om) (/om)	Emphasis - Shown as Italics in most browsers			
We		Paragraph of Text			
C		Line Break			
	<nobr> </nobr>	No line Break			
	6/25/2021	Ravi Shrestha	10		

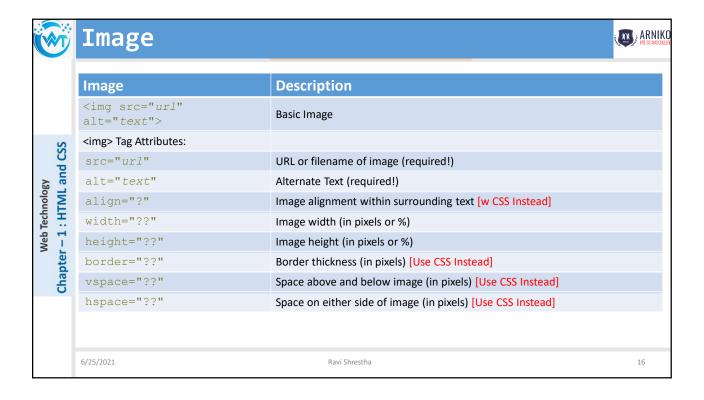


	HR		ARNIKO NTL SS AND COLLEGA
	Section Division	Description	
CSS	<hr/>	Basic Horizontal Line	
	<hr/> Tag Attributes:		
Fechnology: HTML and CSS	size="?"	Line Thickness in pixels	
Web Technology - 1: HTML a	width="?"	Line Width in pixels	
ب ب	raid+h="228"	Line Width as a percentage	
we Chapter –	. color="#??????"	Line Color [Use CSS Instead]	
Ö	align="?"	Horizontal Alignment: left, center, right [Use CSS Instead]	
	noshade	No 3D cut-out	
	6/25/2021	Ravi Shrestha	12

	Lists		ARNIKO MILSS AND COLLE
	Lists	Description	
	<ol> </ol>	Ordered List	
SS	<ul><li><ul></ul></li></ul>	Un-ordered List	
	<li><li></li></li>	List Item (within ordered or unordered)	
chnology HTML and CSS	<ol type="?"></ol>	Ordered list type: A, a, I, i, 1	
logy 1L ar	<ol start="??"></ol>	Ordered list starting value	
Web Technology	<ul type="?"></ul>	Unordered list bullet type: disc, circle, square	
eb Te		List Item Value (changes current and subsequent items)	
w ter-	<li>type="??"&gt;</li>	List Item Type (changes only current item)	
v Chapter	<dl> </dl>	Definition List	
O	<dt> </dt>	Term or phrase being defined	
	<dd> </dd>	Detailed Definition of term	
	6/25/2021	Ravi Shrestha	13

W/	T T	Links		ARNIKO NILSS AND COLIFE
		Linking	Description	
		<a href="url"> link text </a>	Basic Link	
	CSS	<a> Tag Attributes:</a>		
ogy	: HTML and	href="url"	Location (url) of page to link to.	
Web Technology	HTZ	name="??"	Name of link (name of anchor, or name of bookmark)	
ي .	$\leftarrow$	target="?"	Link target location: _self, _blank, _top, _parent.	
	Chapter -	href="url#bookmark"	Link to a bookmark (defined with name attribute).	
	O	href="mailto:email"	Link which initiates an email (dependent on user's email client).	
		6/25/2021	Ravi Shrestha	14







# Image Map



Web Technology
Chapter - 1: HTML and CSS

In HTML, an element called MAP lets you associate URLs with various regions of an image; then, when the
image is clicked in one of the designated regions, the browser loads the appropriate URL. This form of
mapping is known as a client-side image map, since the determination of which URL to contact is made
on the client and no server-side program is involved.

- HTML also supports server-side image maps that can be used within HTML forms. With such maps, an
  image is drawn, and when the user clicks on it, the coordinates of the click are sent to a server-side
  program.
- Client-side image maps are simpler and more efficient than server-side ones and should be used when all you want to do is associate a fixed set of URLs with some predefined image regions.
- Server-side image maps are appropriate if the URL needs to be computed (e.g., for weather maps), the regions change frequently, or other form data needs to be included with the request.

6/25/2021 Ravi Shrestha 17



Chapter - 1: HTML and CSS

Web Technology

# Image Map

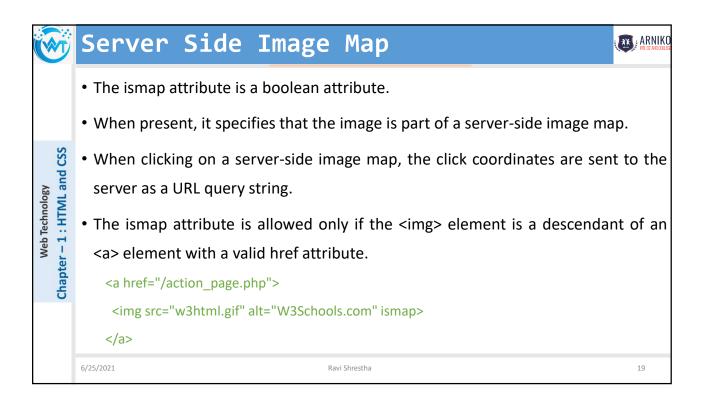


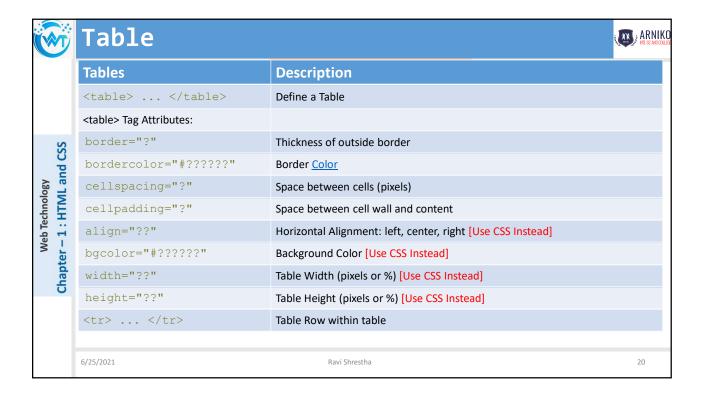
- With HTML image maps, you can create clickable areas on an image.
- The HTML <map> tag defines an image map. An image map is an image with clickable areas. The areas are defined with one or more <area> tags.

```
<img src="workplace.jpg" alt="Workplace" usemap="#workmap">
<map name="workmap">
<area shape="rect" coords="34,44,270,350" alt="Computer" href="computer.htm">
<area shape="rect" coords="290,172,333,250" alt="Phone" href="phone.htm">
<area shape="circle" coords="337,300,44" alt="Coffee" href="coffee.htm">
</map>
```

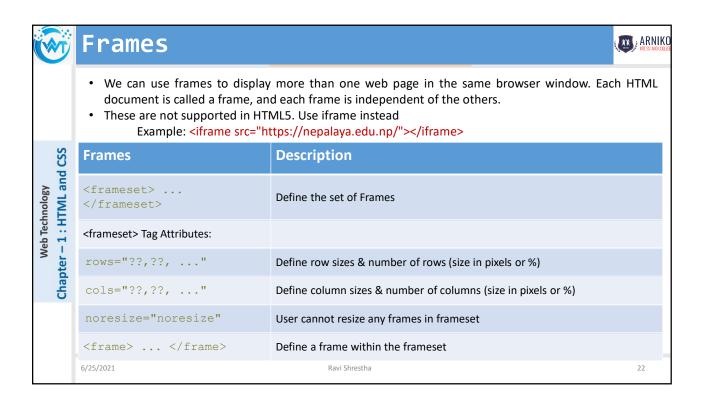
- A clickable area is defined using an <area> element.
  - You must define the shape of the clickable area, and you can choose one of these values:
    - rect defines a rectangular region
    - > circle defines a circular region
    - > poly defines a polygonal region
    - ➤ default defines the entire region
  - You must also define some coordinates to be able to place the clickable area onto the image.

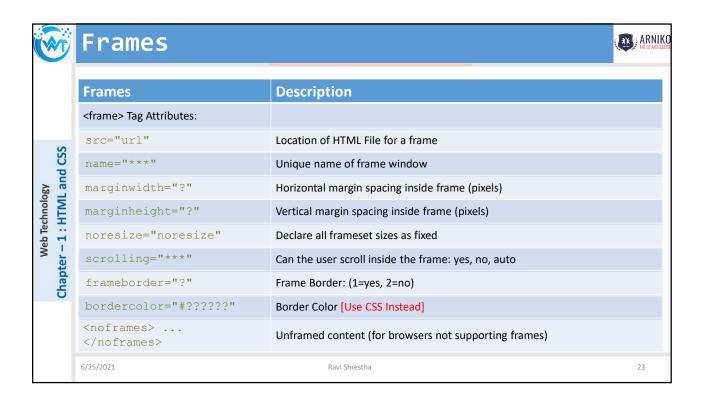
6/25/2021 Ravi Shrestha 18

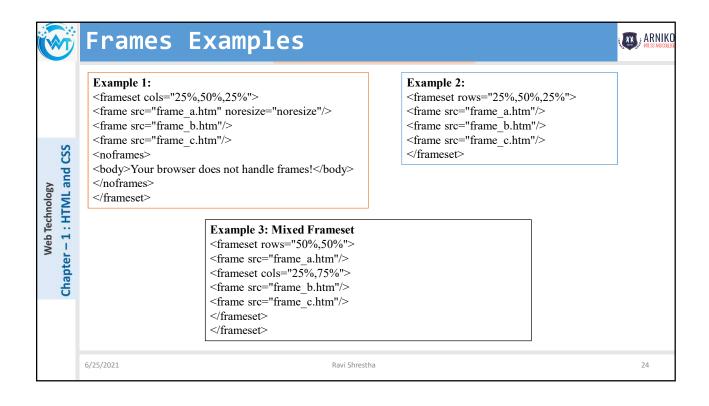


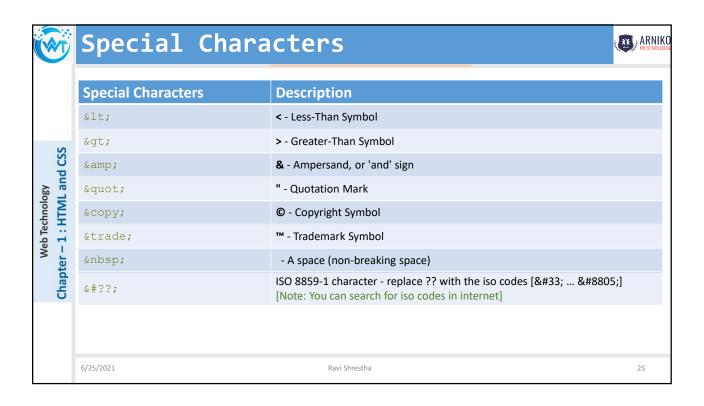


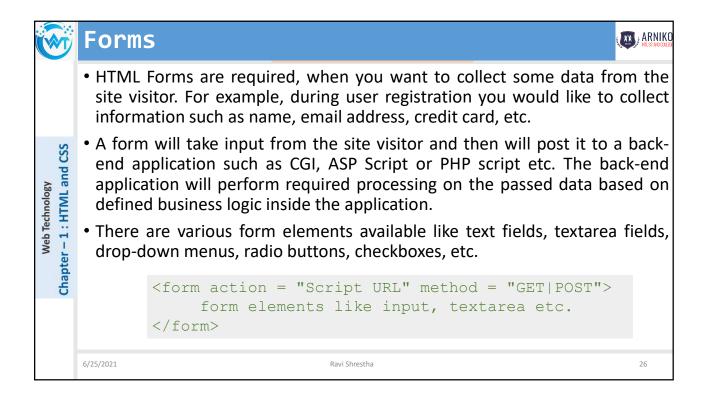
	グ	Table		ARNIKO MILSS AND COLLEG
		Tables	Description	
			Header Cell within table row	
			Table Cell within table row	
SS	SS	Tag Attributes:		
	HTML and CSS	colspan="?"	Number of columns the cell spans across (cell merge)	
logy	1L ar	rowspan="?"	Number of row a cell spans across (cell merge)	
Web Technology	Ε	width="??"	Cell Width (pixels or %) [Use CSS Instead]	
eb Te	++	height="??"	Cell Height (pixels or %) [Use CSS Instead]	
W	ter -	bgcolor="#?????"	Background Color [Use CSS Instead]	
	Chapter –	align="??"	Horizontal Alignment: left, center, right [Use CSS Instead]	
1	O	valign="??"	Vertical Alignment: top, middle, bottom [Use CSS Instead]	
		nowrap	Force no line breaks in a particular cell	
		6/25/2021	Ravi Shrestha	21



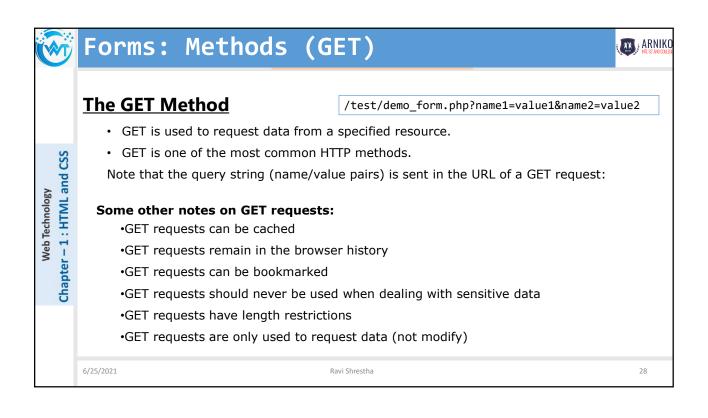


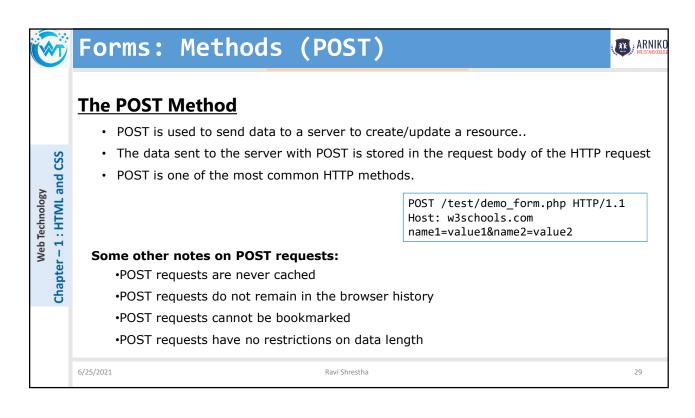






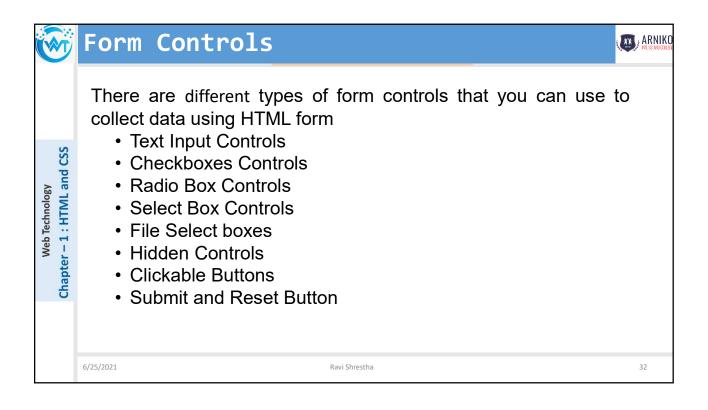
	Forms	
	Forms	Description
	action="url"	URL of Form Script
	method="***"	Method of Form: get, post, put, head, delete
Web Technology Chapter – 1: HTML and CSS	enctype="***"	You can use the enctype attribute to specify how the browser encodes the data before it sends it to the server.  Possible values are –  • application/x-www-form-urlencoded – This is the standard method most forms use in simple scenarios.  • mutlipart/form-data – This is used when you want to upload binary data in the form of files like image, word file etc.
	Target	Specify ItSpecify the target window or frame where the result of the script will be displayed. Ittakes takes values like _blank, _self, _parent etc.

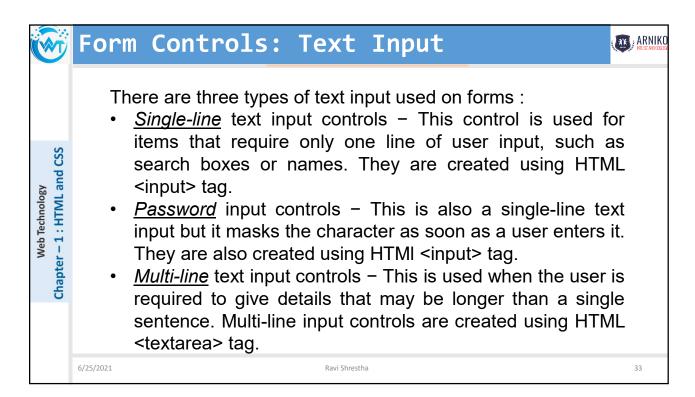




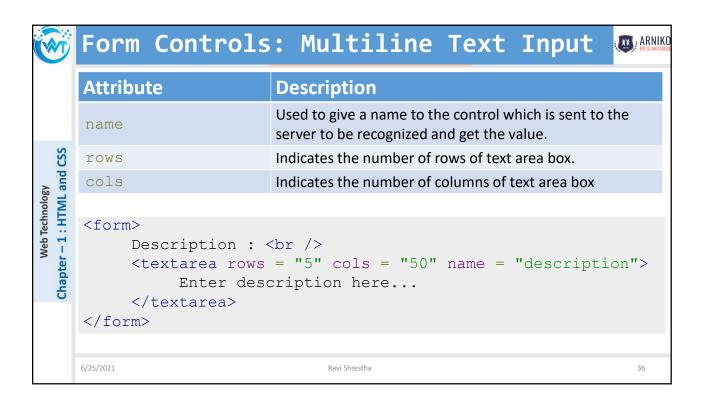
	Forms: Me	thods (GET	vs POST)	NIKO
		GET	POST	
sso pi	BACK button/Reload	Harmless	Data will be re-submitted (the browser should alert the user that the data are about to be re-submitted)	
chnology HTML and	Bookmarked	Can be bookmarked	Cannot be bookmarked	
chnol	Cached	Can be cached	Not cached	
Web Technology Chapter – 1 : HTML a	Encoding type	application/x-www- form-urlencoded	application/x-www-form-urlencoded or multipart/form-data. Use multipart encoding for binary data	
5	History	Parameters remain in browser history	Parameters are not saved in browser history	
	6/25/2021	Ravi Shrestha	30	

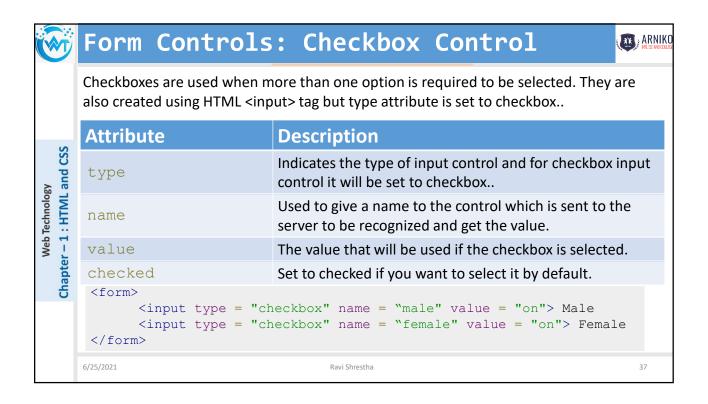
	ÿ	Forms: Me	thods (GET vs PC	ST) ARNIKO
			GET	POST
d CSS		Restrictions on data length	Yes, when sending data, the GET method adds the data to the URL; and the length of a URL is limited (maximum URL length is 2048 characters)	No restrictions
nology	: HTML and	Restrictions on data type	Only ASCII characters allowed	No restrictions. Binary data is also allowed
Veb 7		Security	GET is less secure compared to POST because data sent is part of the URL Never use GET when sending passwords or other sensitive information!	POST is a little safer than GET because the parameters are not stored in browser history or in web server logs
;	Cha	Visibility	Data is visible to everyone in the URL	Data is not displayed in the URL
	6	6/25/2021	Ravi Shrestha	31

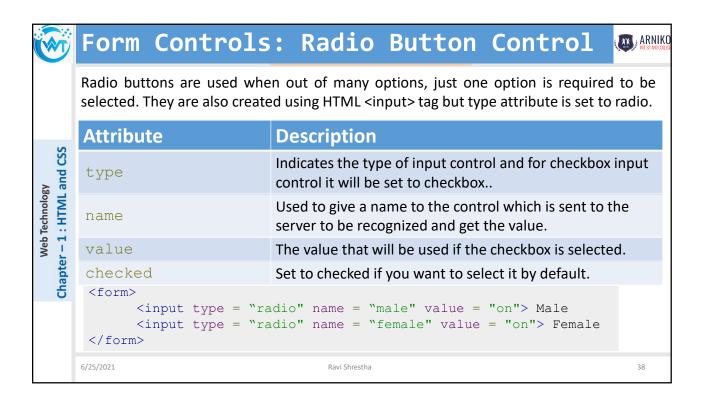


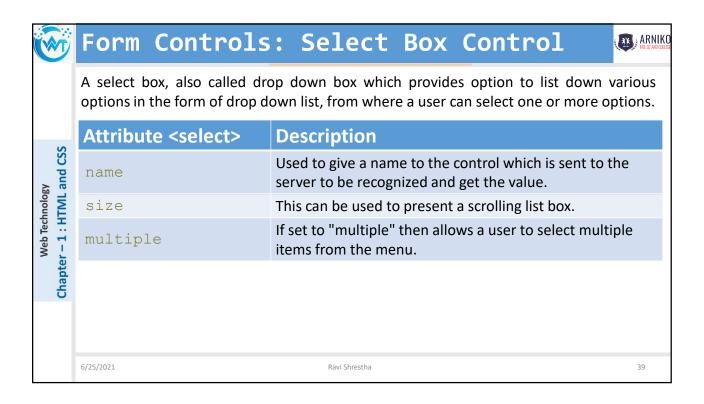


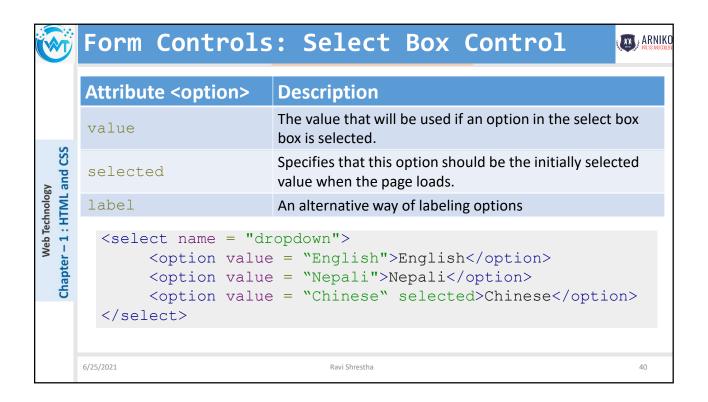
W <sub>T</sub>	Form Controls	s: Text/Password Input
	Attribute	Description
	type	Indicates the type of input control and for text input control it will be set to <u>text</u> OR <u>password</u> .
and CSS	name	Used to give a name to the control which is sent to the server to be recognized and get the value.
Web Technology - 1 : HTML a	value	This can be used to provide an initial value inside the control.
Web 7	size	Allows to specify the width of the text-input control in terms of characters.
v Chapter	maxlength	Allows to specify the maximum number of characters a user can enter into the text box.
	6/25/2021	Ravi Shrestha 34

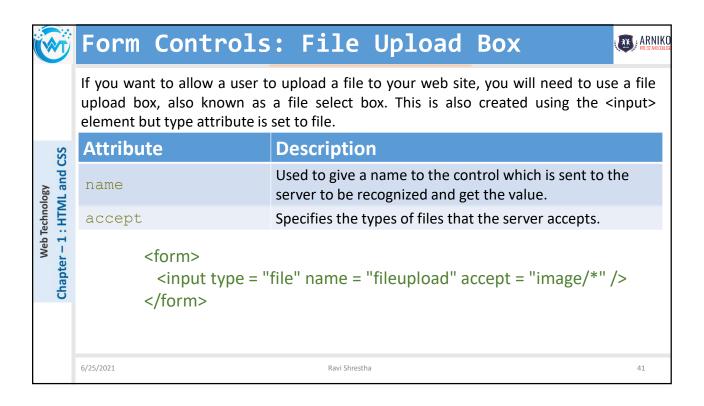












	Form	Controls: Button Control	ARNIKO MILSS AND COLLEG
	Туре	Description	
	submit	This creates a button that automatically submits a form.	
Fechnology: HTML and CSS	reset	This creates a button that automatically resets form controls to initial values.	their
/eb]	button	This creates a button that is used to trigger a client-side script when user clicks that button.	n the
v Chapter	image	This creates a clickable button but we can use an image as backgrount the button.	nd of
	6/25/2021	Ravi Shrestha	42





Chapter - 1: HTML and CSS

Web Technology

# Form Controls: Hidden



- Hidden form controls are used to hide data inside the page which later on can be pushed to the server.
- This control hides inside the code and does not appear on the actual page.
- For example, following hidden form is being used to keep current page number.
  - When a user will click next page then the value of hidden control will be sent to the web server.
  - There it will decide which page will be displayed next based on the passed current page.

6/25/2021 Ravi Shrestha 44