Basics of Web and HTML

Objective

- Understand Design Layout for UI

- Differentiate between div and span tags in HTML

- Understand how to use tables and forms in HTML

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HTML Table

- Tables are defined with the **<table>** tag.

- A table is divided into rows with the **<tr>** tag. (tr stands for table row)

- A row is divided into data cells with the **<td>** tag. (td stands for table data)

- A row can also be divided into headings with the **<th>** tag. (th stands for table heading)

- The <td> elements are the data containers in the table.

- The <td> elements can contain all sorts of HTML elements like text, images, lists, other tables, etc.
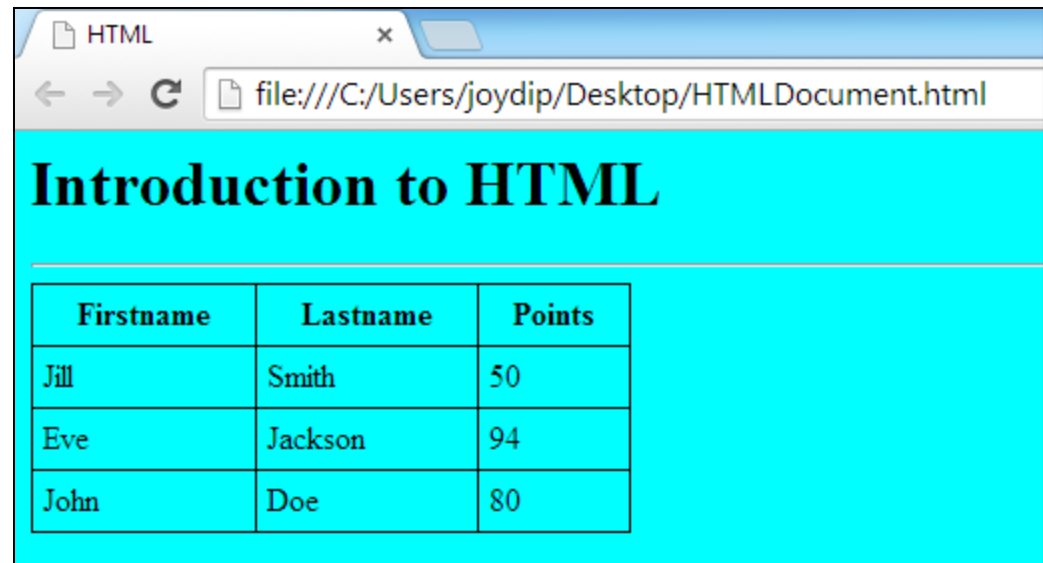
- The width of a table can be defined using style tag.

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HTML Table Tags

Tag	Description
<table>	Defines a table
<th>	Defines a header cell in a table
<tr>	Defines a row in a table
<td>	Defines a cell in a table
<caption>	Defines a table caption
<colgroup>	Specifies a group of one or more columns in a table for formatting
<col>	Specifies column properties for each column within a <colgroup> element
<thead>	Groups the header content in a table
<tbody>	Groups the body content in a table
<tfoot>	Groups the footer content in a table

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HTML Table: Example

```html
<html>
<head>
<title>HTML</title>
<style>
table,th,td { border:1px solid black; border-collapse:collapse; }
th,td { padding:5px; }
</style>
</head>
<body bgcolor="Aqua">
<h1> Introduction to HTML </h1>
<hr/>

<table style="width:300px;">
<tr>
 <th>Firstname</th>
 <th>Lastname</th>
 <th>Points</th>
 </tr>
<tr>
<tr>
 <td>Jill</td>
 <td>Smith</td>
 <td>50</td>
 </tr>
<tr>
 <td>Eve</td>
 <td>Jackson</td>
 <td>94</td>
</tr>
<tr>
 <td>John</td>
 <td>Doe</td>
 <td>80</td>
</tr>
</table>


</body>
</html>
```


Introduction to HTML

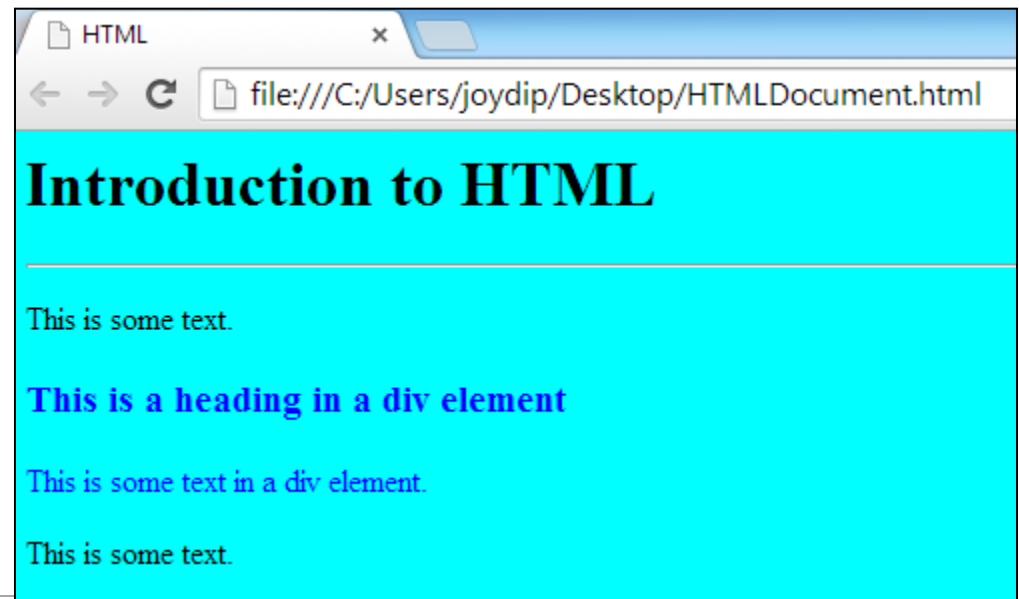| Firstname	Lastname	Points
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

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HTML Div Tag

- The <div> tag defines a division or a section in an HTML document.

- The <div> tag is used to group block-elements to format them with style tag.

- **Note:** By default, browsers always place a line break before and after the <div> element. However, this can be changed with style tag

```
<p>This is some text.</p>

<div style="color:#0000FF">
 <h3>This is a heading in a div element</h3>
 <p>This is some text in a div element.</p>
</div>

<p>This is some text.</p>
```
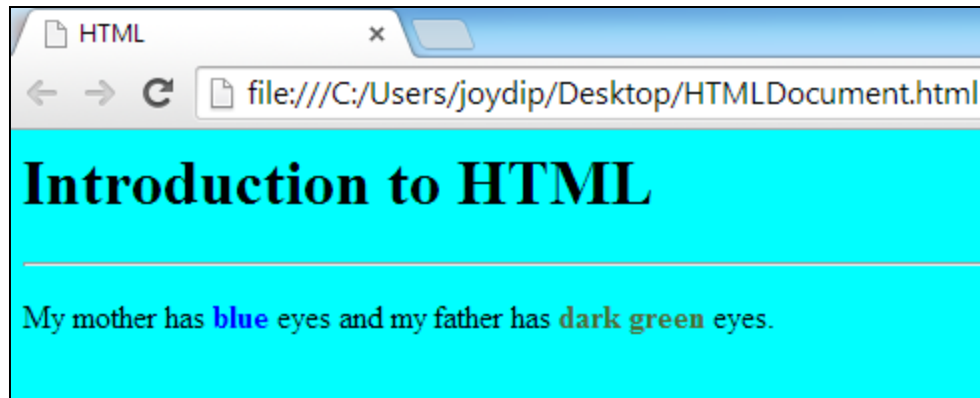
HTML ×

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Introduction to HTML

This is some text.

This is a heading in a div element

This is some text in a div element.

This is some text.

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HTML Span tag

- The <span> tag is used to group inline-elements in a document.

- The <span> tag provides no visual change by itself.

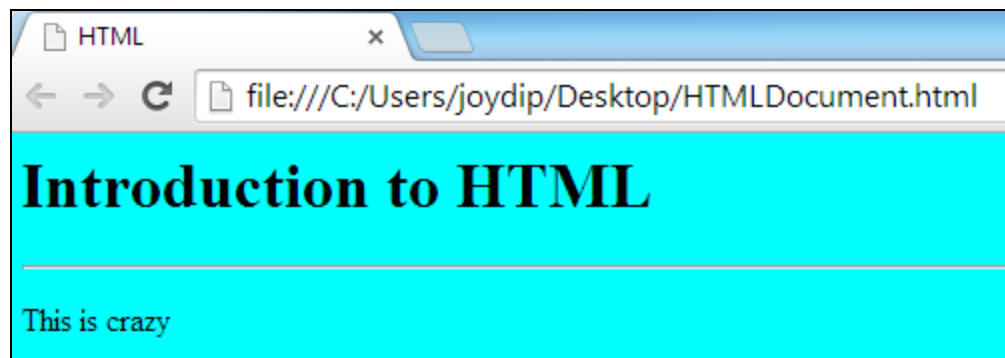- The <span> tag provides a way to add a hook to a part of a text or a part of a document

```
<p>My mother has
<span style="color:blue;font-weight:bold">blue</span>
 eyes and my father has
<span style="color:darkolivegreen;font-weight:bold">dark green</span> eyes.
</p>
```


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Difference Between Span and Div

- The difference between span and div is that a span element is *in-line* and usually used for a small chunk of HTML inside a line (such as inside a paragraph) whereas a div (division) element is *block-line* (which is basically equivalent to having a line-break before and after it) and used to group larger chunks of code.

```
<div id="scissors">
   <p>This is <span class="paper">crazy</span></p>
</div>
```

HTML ×

file:///C:/Users/joydip/Desktop/HTMLDocument.html
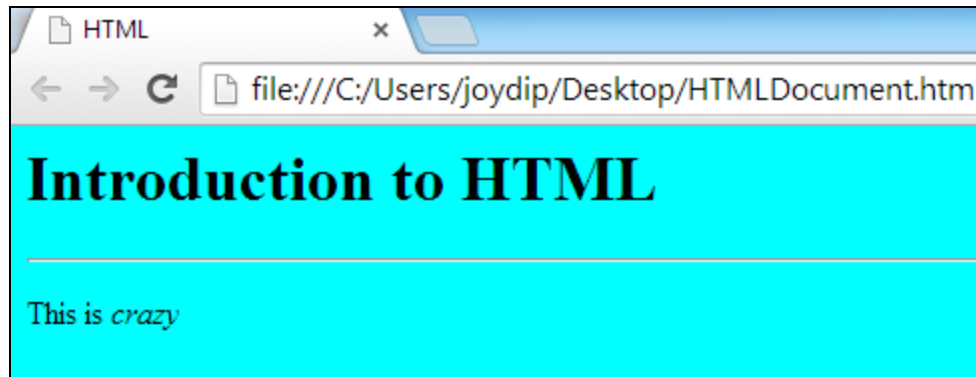
Introduction to HTML

This is crazy

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Caution About Span and Div tag

- div and especially span shouldn't actually be used that often. Whenever there is a sensible alternative that should be used instead.

- For example, if you want to emphasize the word "crazy" and the class "paper" is adding italics for visual emphasis, then, for richer, more meaningful content, the code might look like this:

```html
<div id="scissors">
    <p>This is <em class="paper">crazy</em></p>
</div>
```

Understand Design Layout for UI

- Most websites have put their content in multiple columns (formatted like a magazine or newspaper).

- Multiple columns are created by using <div> or <table> elements. CSS are used to position elements, or to create backgrounds or colorful look for the pages.

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HTML Layouts - Using <div> Elements

- Defines a section in a document (block-level)

- The div element is a block level element used for grouping HTML elements

```
<div id="container" style="width:500px">

<div id="header" style="background-color:#FFA500;">
<h1 style="margin-bottom:0;">
Main Title of Web Page</h1></div>

<div id="menu"
style="background-color:#FFD700;height:200px;width:100px;float:left;">
<b>Menu</b><br>
HTML<br>
CSS<br>
JavaScript</div>

<div id="content"
style="background-color:#EEEEEE;height:200px;width:400px;float:left;">
Content goes here</div>

<div id="footer"
style="background-color:#FFA500;clear:both;text-align:center;">
Copyright © mindtree.com</div>

</div>
```
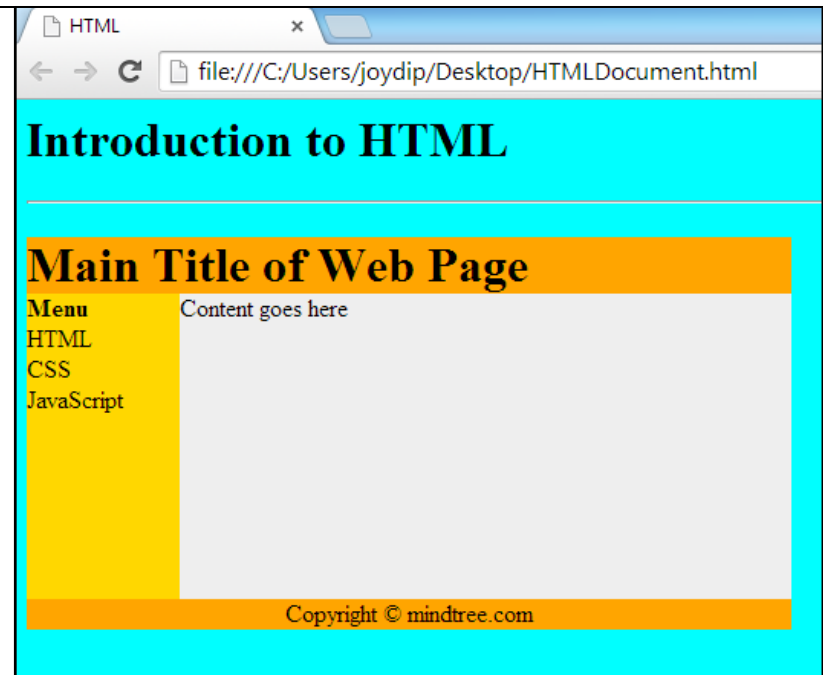

![Mindtree logo] Mindtree

HTML Layouts - Using <table> Elements

```html
<table width="500">
<tr>
<td colspan="2" style="background-color:#FFA500;">
<h1>Main Title of Web Page</h1>
</td>
</tr>

<tr>
<td style="background-color:#FFD700;width:100px;">
<b>Menu</b><br>
HTML<br>
CSS<br>
JavaScript
</td>
<td style="background-color:#eeeeee;height:200px;width:400px;">
Content goes here</td>
</tr>

<tr>
<td colspan="2" style="background-color:#FFA500;text-align:center;">
Copyright © mindtree.com</td>
</tr>
</table>
```
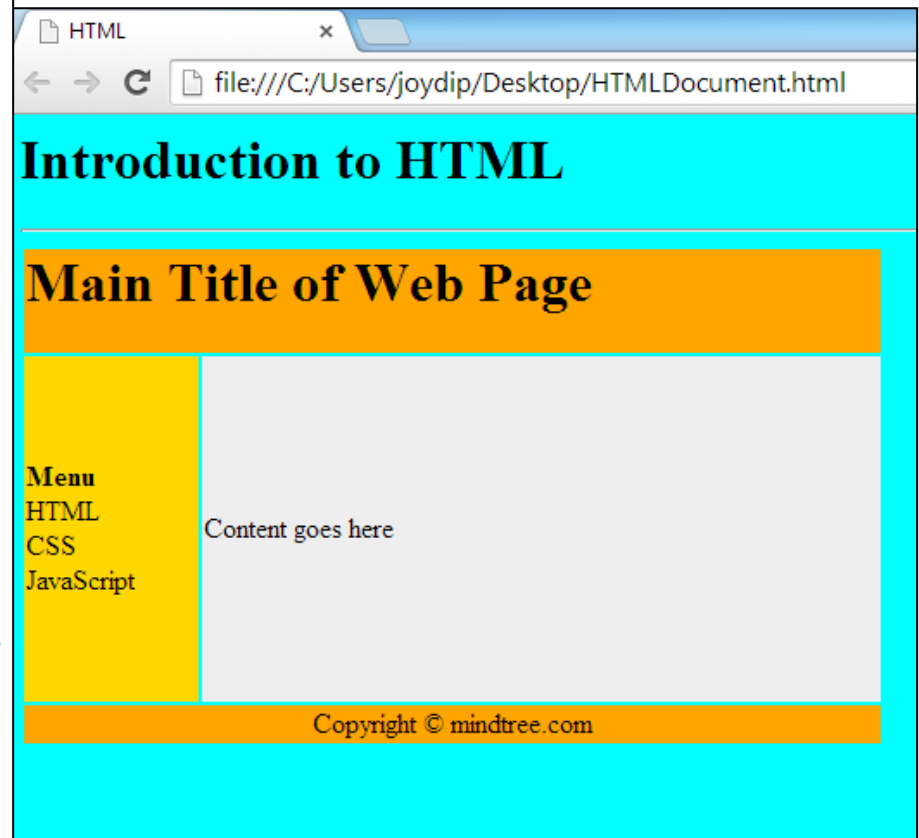
HTML Form Tag

- HTML forms are used to pass data to a server.

- An HTML form can contain input elements like text fields, checkboxes, radio-buttons, submit buttons and more. A form can also contain select lists, textarea, fieldset, legend, and label elements.

- The <form> tag is used to create an HTML form

- HTML Forms - The **Input** Element

  - The most important form element is the <input> element.

  - The <input> element is used to select user information.

  - An <input> element can vary in many ways, depending on the type attribute. An < input> element can be of type text field, checkbox, password, radio button, submit button, and more.

HTML Form Tag: Action Attribute

- Action attribute specifies where to send the form-data when a form is submitted.

- Syntax:

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

- *URL:* Where to send the form-data when the form is submitted. Possible values:

  - An absolute URL - points to another web site (like action="http://www.example.com/example.htm")

  - A relative URL - points to a file within a web site (like action="example.htm")

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HTML Form Tag: Method Attribute

- The **method** attribute specifies how to send form-data (the form-data is sent to the page specified in the action attribute).

- The form-data can be sent as URL variables (with method="get") or as HTTP post transaction (with method="post").

- **GET Method:**

  - Appends form-data into the URL in name/value pairs

  - The length of a URL is limited (about 3000 characters)

  - Never use GET to send sensitive data! (will be visible in the URL)

  - Useful for form submissions where a user want to bookmark the result

  - GET is better for non-secure data, like query strings in Google

- **POST Method:**

  - Appends form-data inside the body of the HTTP request (data is not shown is in URL)

  - Has no size limitations

  - Form submissions with POST cannot be bookmarked

- **Syntax:**

```
<form method="get|post">
```
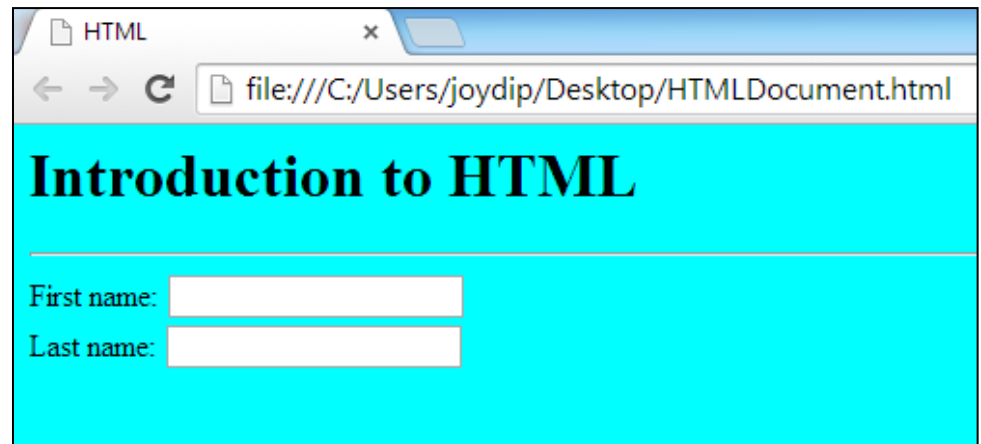
HTML Form Tag: Action and Method Attribute Example

```html
<form action="demo_form.asp" method="get">
  First name: <input type="text" name="fname"><br>
  Last name: <input type="text" name="lname"><br>
  <input type="submit" value="Submit">
</form>
```

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Text Fields

- <input type="text"> defines a one-line input field that a user can enter text into:

```
<html>
<head>
<title>HTML</title>
</head>
<body bgcolor="Aqua">
<form>
<h1> Introduction to HTML </h1>
<hr/>
First name: <input type="text" name="firstname"><br>
Last name: <input type="text" name="lastname">
</form>
</body>
</html>
```
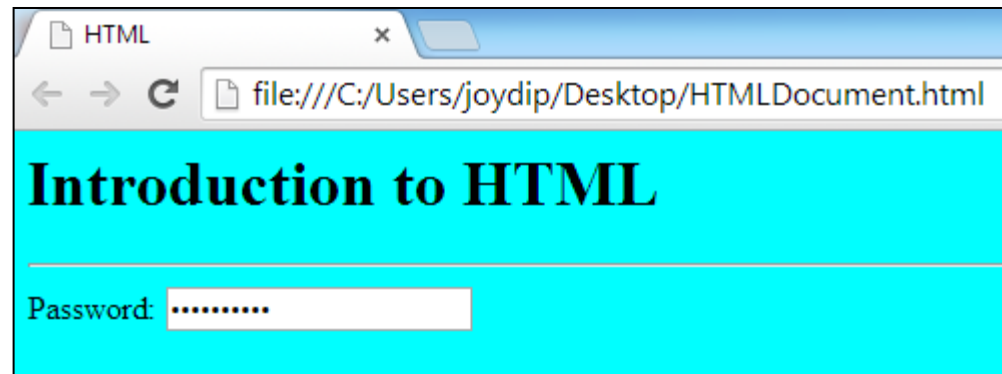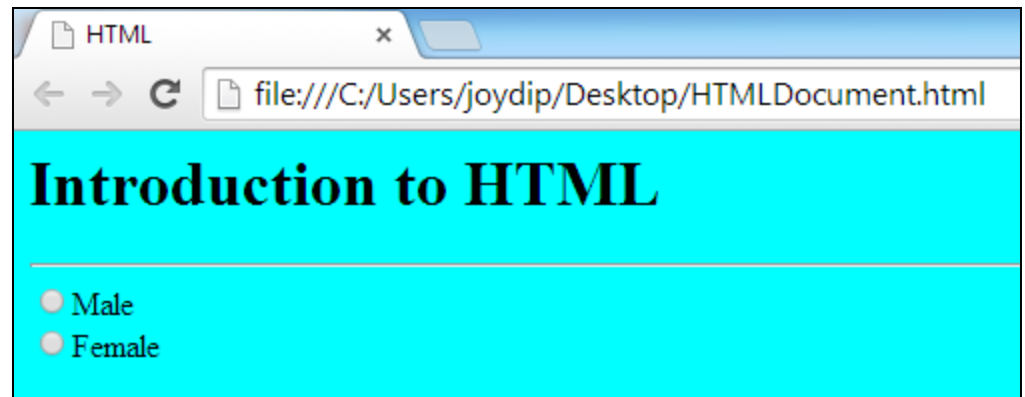

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Password Field

- <input type="password"> defines a password field:

```
<html>
<head>
<title>HTML</title>
</head>
<body bgcolor="Aqua">
<form>
<h1> Introduction to HTML </h1>
<hr/>
 Password: <input type="password" name="pwd">
 </form>
</body>
</html>
```


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Radio Buttons

- <input type="radio"> defines a radio button. Radio buttons let a user select ONLY ONE of a limited number of choices:

```html
<html>
<head>
<title>HTML</title>
</head>
<body bgcolor="Aqua">
<form>
<h1> Introduction to HTML </h1>
<hr/>
<input type="radio" name="sex" value="male">Male<br>
<input type="radio" name="sex" value="female">Female
</form>
</body>
</html>
```
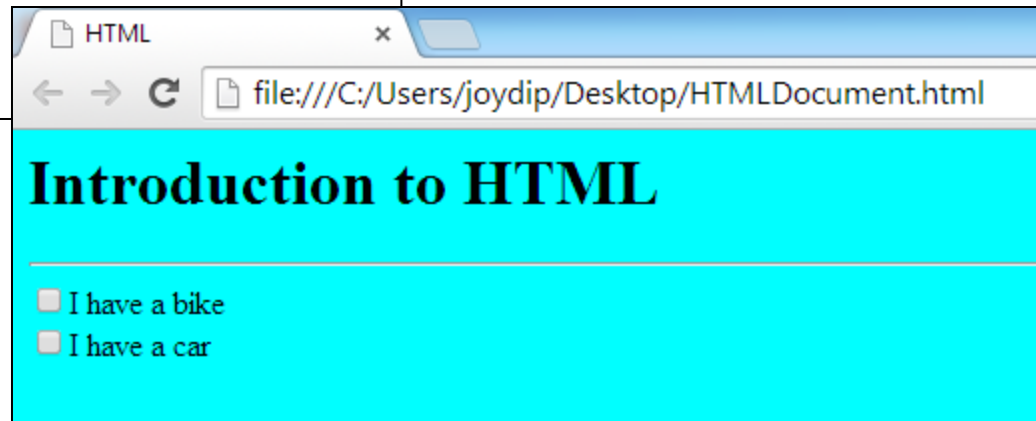

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Checkboxes

- <input type="checkbox"> defines a checkbox. Checkboxes let a user select ZERO or MORE options of a limited number of choices.

```html
<html>
<head>
<title>HTML</title>
</head>
<body bgcolor="Aqua">
<form>
<h1> Introduction to HTML </h1>
<hr/>
<input type="checkbox" name="vehicle" value="Bike">I have a bike<br>
 <input type="checkbox" name="vehicle" value="Car">I have a car
 </form>
</body>
</html>
```
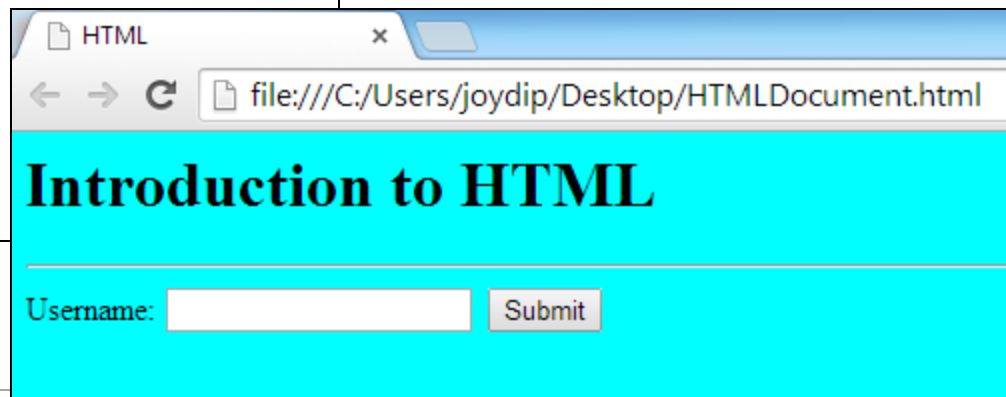
HTML ×

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☐ I have a bike
☐ I have a car

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Submit Button

- <input type="submit"> defines a submit button.

- A submit button is used to send form data to a server. The data is sent to the page specified in the form's action attribute. The file defined in the action attribute usually does something with the received input

```html
<html>
<head>
<title>HTML</title>
</head>
<body bgcolor="Aqua">
<form name="input" action="demo_form_action.asp" method="get">
<h1> Introduction to HTML </h1>
<hr/>
Username: <input type="text" name="user">
 <input type="submit" value="Submit">
 </form>
</body>
</html>
```


HTML

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Introduction to HTML

Username: [   ]   Submit

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References

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- http://html.net/tutorials/html/

- http://www.codecademy.com/tracks/web

- http://htmldog.com/guides/html/intermediate/spandiv/

- http://stackoverflow.com/questions/183532/what-is-the-difference-between-html-tags-div-and-span

- http://www.tutorialspoint.com/html/html_tables.htm

Thank You

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