Web Programming

Form and Frame

What is a form?

Form is a media to accept user inputs and send the process to server to be processed.

HTML form

First name:

Last name:

E-mail:

○ Male
○ Female

Submit   Reset

Form

`<form></form>`

- Is used as the base to contain the user inputs.
- Every form will have variety of inputs, boxes, buttons, etc

Input

- Tag: `<input />`
- Types of input: text, number, date, checkbox, etc
- To give value, use attribute "value"

Note: It is a good practice to add id and name in out input tag like

```
<input type="text" id="fname" name="fname"/>
<input type="text" id="fname" name="fname"
        value="John Doe"/>
```

Label

First name:

- Label is a description of an input.
- Using label will help user in identifying which input is currently in process.
- Use "for" attribute containing the "id" of the input.

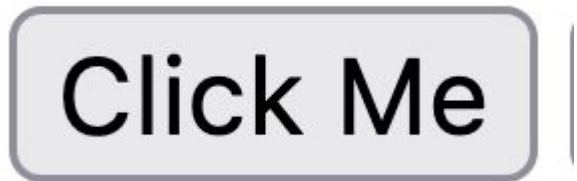Example: the "label" is for input with id "fname"

```
<label for="fname">First name:</label><br/>
<input type="text" id="fname" name="fname"/>
```

Button

A button is something that is clickable for our user. It is usually used as confirmation about an action, or when we want to trigger something in our form. To create a button we have two ways

1. Using `<input type="button" value="Click Me"/>`
2. Using `<button>Click Me</button>`

Click Me

Button Types

We have two different main button types

1. **button**: the usual button
2. **submit**: same with input type submit and will call the form*

Let's Try input types and add some values ;)

```html
Date: <input type="date" name="myDate" id="myDate" /> <br/><br/>
Email: <input type="email" name="myEmail" id="myEmail" /> <br/><br/>
Tel: <input type="tel" name="myTel" id="myTel" /> <br/><br/>
File: <input type="file" name="myFile" id="myFile" /> <br/><br/>
Password: <input type="password" name="myPass" id="myPass" /> <br/><br/>
Number: <input type="number" name="myNumber" id="myNumber" /> <br/><br/>
Range: <input type="range" name="myRange" id="myRange" /> <br/><br/>
Hidden <input type="hidden" name="myHidden" id="myHidden" /> <br/><br/>
```

With values

```html
Date: <input type="date" name="myDate" id="myDate" value="2023-02-14"/>
<br/><br/>
Email: <input type="email" name="myEmail" id="myEmail"
value="john@test.com"/>
<br/><br/>
Tel: <input type="tel" name="myTel" id="myTel" value="+62 85484447" />
<br/><br/>
File: <input type="file" name="myFile" id="myFile" />
<br/><br/>
Password: <input type="password" name="myPass" id="myPass" value="secret" />
<br/><br/>
Number: <input type="number" name="myNumber" id="myNumber" value="13" />
<br/><br/>
Range: <input type="range" name="myRange" id="myRange" value="10" />
<br/><br/>
Hidden <input type="hidden" name="myHidden" id="myHidden" value="secret" />
```

Date: mm / dd / yyyy 📅   Date: 02 / 14 / 2023 📅

Email: [   ]   Email: [john@test.com   ]

Tel: [   ]   Tel: [+62 85484447   ]

File: [Browse...] No file selected.   File: [Browse...] No file selected.

Password: [   ]   Password: [•••••   ]

Number: [⌄⌃]   Number: [13   ⌄⌃]

Range: ———●————————   Range: ——●———————————

Hidden   Hidden

Input Attributes

```html
<form>
    Username: <input type="text" id="username" name="username" value="John" size="20"/>
    <br/><br/>
    Nickname: <input type="text" id="nickname" name="nickname" autofocus/>
    <br/><br/>
    StudentID: <input type="text" id="studentId" name="studentId" value="001" readonly/>
    <br/><br/>
    Major: <input type="text" id="major" name="major" value="IT" disabled/>
    <br/><br/>
    Hobby: <input type="text" id="hobby" name="hobby" placeholder="Sing"
                maxlength="20" required/>
    <br/><br/>
    Rate: <input type="number" id="rate" name="rate" min="1" max="5"/>
    <br/><br/>
    <input type="submit" value="Submit Form"/>
</form>
```

Username: John

Nickname:

StudentID: 001

Major: IT

Hobby: Sing

Rate: 5

Submit Form

Username: John

Nickname:

StudentID: 001

Major: IT

Hobby: Sing

Please fill out this field.

Rate: 5

Submit Form

Username: John

Nickname:

StudentID: 001

Major: IT

Hobby: Reading

Rate: 10

Please select a value that is no more than 5.

Submit Form

Radio

```html
<p>Choose your favorite Web language:</p>

<form>
  <input type="radio" id="html" name="fav_language" value="HTML"/>
  <label for="html">HTML</label><br/>
  <input type="radio" id="css" name="fav_language" value="CSS"/>
  <label for="css">CSS</label><br/>
  <input type="radio" id="javascript" name="fav_language" value="JavaScript"/>
  <label for="javascript">JavaScript</label>
</form>
```

Choose your favorite Web language:

- ⦿ HTML
- ◯ CSS
- ◯ JavaScript

CheckBox

☐ Peanut ☐ Cookies ☐ Almond

Different from radio, checkbox provides separate values that user could choose as she/he would like to,

```html
<form>
  <input type="checkbox" id="toppingA" name="topping" value="Peanut"/> Peanut
  <input type="checkbox" id="toppingB" name="topping" value="Cookies"/> Cookies
  <input type="checkbox" id="toppingC" name="topping" value="Almond"/> Almond
</form>
```

Notes on radio and checkbox

To make sure that our radio buttons provide different choices, we **MUST give the same name**, and different id value. The same applies to checkboxes too

Try to change the name into different names for each and see what happens

Select

```html
<label for="cars">Choose a car:</label>
<select id="cars" name="cars">
  <option value="volvo">Volvo</option>
  <option value="toyota">Toyota</option>
  <option value="fiat">Fiat</option>
  <option value="audi">Audi</option>
</select>
```

Choose a car: ✓ Volvo
Toyota
Fiat
Audi

Auto Select

Choose a car: Toyota ˅

```html
<label for="cars">Choose a car:</label>
<select id="cars" name="cars">
  <option value="volvo">Volvo</option>
  <option value="toyota" selected>Toyota</option>
  <option value="fiat">Fiat</option>
  <option value="audi">Audi</option>
</select>
```

Multiple Select

```html
<label for="cars">Choose cars:</label>
<select id="cars" name="cars" multiple>
  <option value="volvo">Volvo</option>
  <option value="toyota">Toyota</option>
  <option value="fiat">Fiat</option>
  <option value="audi">Audi</option>
</select>
```

Choose cars:

Volvo
Toyota
Fiat
Audi

Optgroup

```html
<label for="cars">Choose a car:</label>
<select name="cars" id="cars">
    <optgroup label="Japan Cars">
        <option value="toyota">Toyota</option>
        <option value="honda">Honda</option>
    </optgroup>
    <optgroup label="German Cars">
        <option value="mercedes">Mercedes</option>
        <option value="bmw">BMW</option>
    </optgroup>
</select>
```

Choose a car: Toyota ⌄

Japan Cars
✓ Toyota
Honda
German Cars
Mercedes
BMW

Textarea

```html
<label for="web_programming">How Web Programming is:</label>

<textarea id="web_programming" name="web_programming" rows="4" cols="50">
Learn web programming they say, it will be fun they say.
</textarea>
```

Learn web programming they say, it will be fun they say.

How Web Programming is:

Fieldset and Legend

```html
<form>
  <fieldset>
    <legend>Personalia:</legend>
    <label for="fname">First name:</label><br>
    <input type="text" id="fname" name="fname" value="John"><br>
    <label for="lname">Last name:</label><br>
    <input type="text" id="lname" name="lname" value="Doe"><br><br>
    <input type="submit" value="Submit">
  </fieldset>
</form>
```

Personalia:

First name:

John

Last name:

Doe

Submit

Datalist

```html
<form>
  <input list="browsers" name="browser">
  <datalist id="browsers">
    <option value="Internet Explorer">
    <option value="Firefox">
    <option value="Chrome">
    <option value="Opera">
    <option value="Safari">
  </datalist>
  <input type="submit" value="Find Browser"/>
</form>
```

a

Find Browser

Opera
Safari

Frame and Frameset

- Deprecated in HTML5, but still fun to use
- Used to embed another html page inside a page
- Frame could be nested
- To add frame and frameset, need to remove some part of the html tags

Create these files in one folder:

1. Master page (with frame): `index.html`
2. Navigation: `nav.html`
3. Home page*: `main.html`
4. Form page*: `form.html`
5. About page*: `about.html`
6. Info page*: `info.html`

*Just put anything inside, do not need to ask :)

index.html

Use cols to create set of frames
110 means use 110 pixels first
* means use the rest

```html
<frameset cols="110,*">
    <frame name="leftframe" src="nav.html"/>
    <frame name="main" src="main.html"/>
    <noframes>
        Not Supported
    </noframes>
</frameset>
```

If your browser does not support frames, show noframes

Add 2 frames with unique name, and add the source to load the HTML. Keep an eye on the **name**

nav.html

```html
<a href="main.html" target="main">Main Page</a><br/><br/>
<a href="form.html" target="main">Form</a><br/><br/>
<a href="about.html" target="main">About</a><br/><br/>
```

Create links, and fill the "target" attribute with the name of the frame to load, in this case the frame name is "main"

Open index.html

Main Page

Form

About

Home Page

Nested Frame

- Put another frameset inside
- Use `rows` attribute to split the frame by rows
- Use `cols` attribute to split the frame by columns

index.html (updated)

```html
<frameset cols="110,*">
    <frame name="leftframe" src="nav.html"/>
    <frameset rows="100,*">
        <frame name="info" src="info.html"/>
        <frame name="main" src="main.html"/>
    </frameset>
    <noframes>
        Not Supported
    </noframes>
</frameset>
```

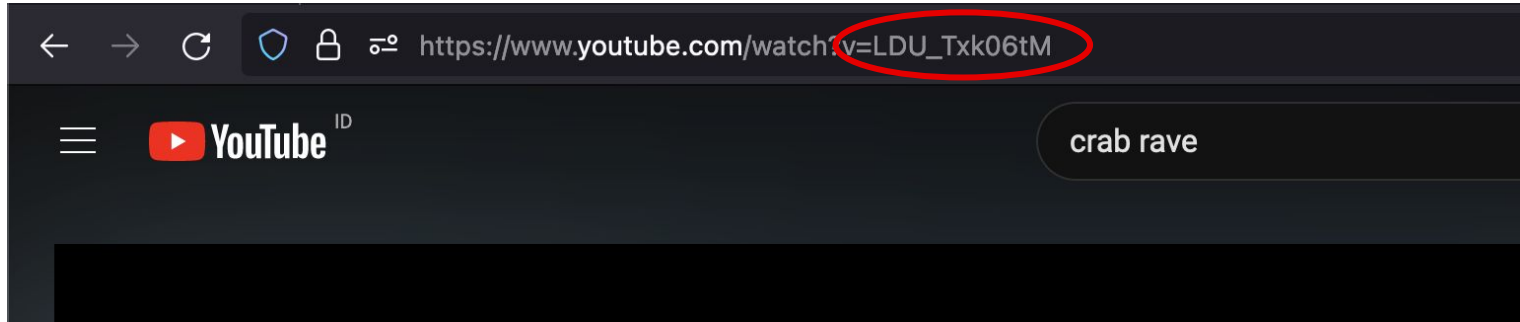Add another frameset, split by rows
First row is 100 pixels

Web Programming Week 3

Home Page

Iframe

- Used in HTML5
- To embed external pages or video sources

Example: YouTube videos will have the unique identifier

Iframe

```html
Here is a video:<br/>
<iframe width="420" height="315"
src="https://www.youtube.com/embed/LDU_Txk06tM">
</iframe>
```
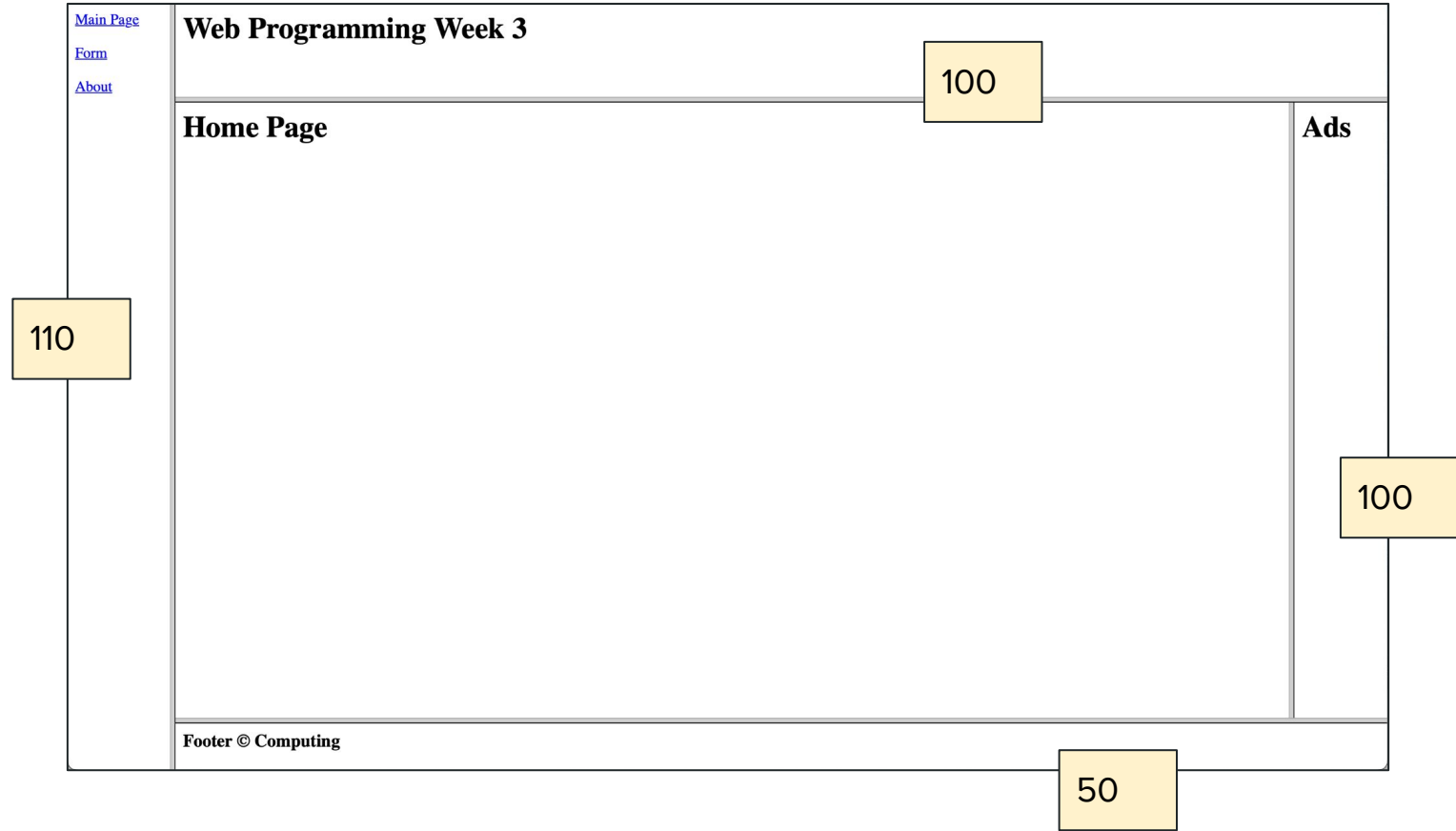
Here is a video:

One more thing

Try this in the frame:

1. Change the content of `about.html` using the previous slide
2. Then open the link in the frame :)

Exercise to challenge yourself

Main Page

Form

About

Web Programming Week 3

100

Home Page

Ads

110

100

Footer © Computing

50

References

https://www.w3schools.com/html/html_form_elements.asp

https://www.w3schools.com/html/html_form_input_types.asp