BRO Academy

Forms and Their Styling

Lesson 6

Lesson plan

1

HTML Form Elements

2

Styling Form Elements

3

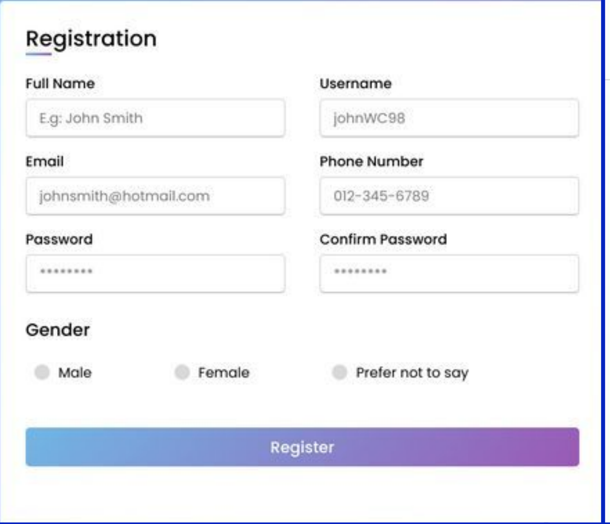
Challenges with Styling

4

Form Validation

5

Other Interactive Tags



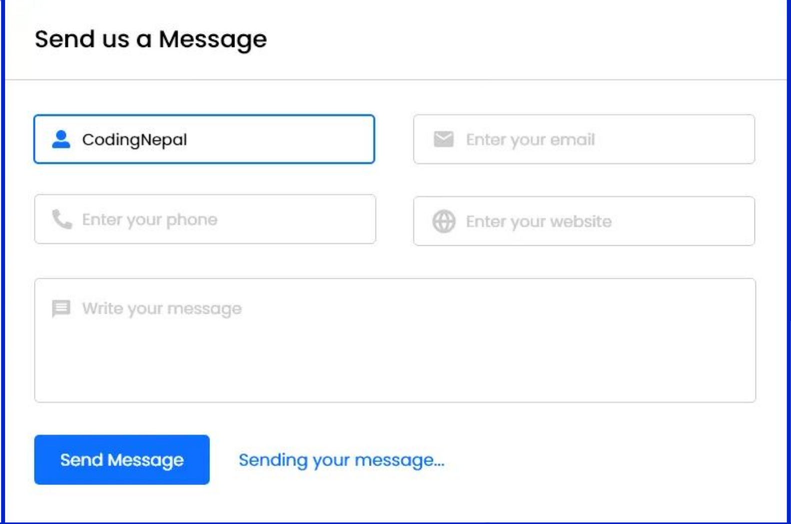
Registration

Full Name	Username
E.g: John Smith	johnWC98
Email	Phone Number
johnsmith@hotmail.com	012-345-6789
Password	Confirm Password
********	********

Gender

○ Male ○ Female ○ Prefer not to say

Register



Send us a Message

CodingNepal

Enter your email

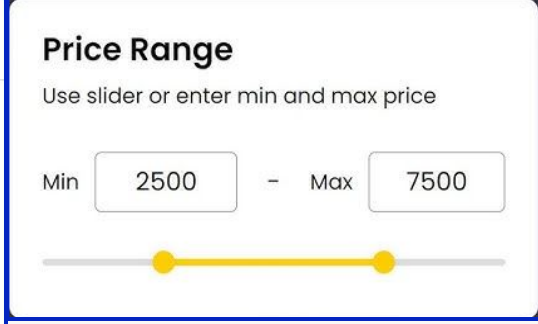
Enter your phone

Enter your website

Write your message

Send Message

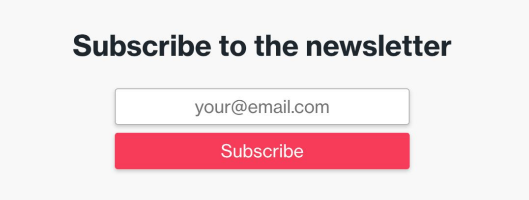
Sending your message...



Price Range

Use slider or enter min and max price

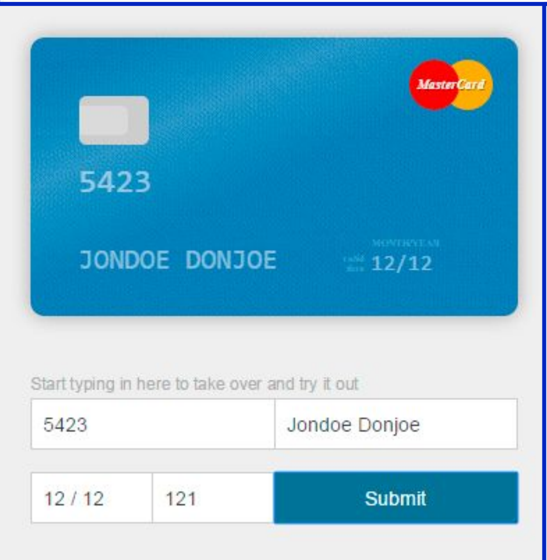
Min 2500 - Max 7500



Subscribe to the newsletter

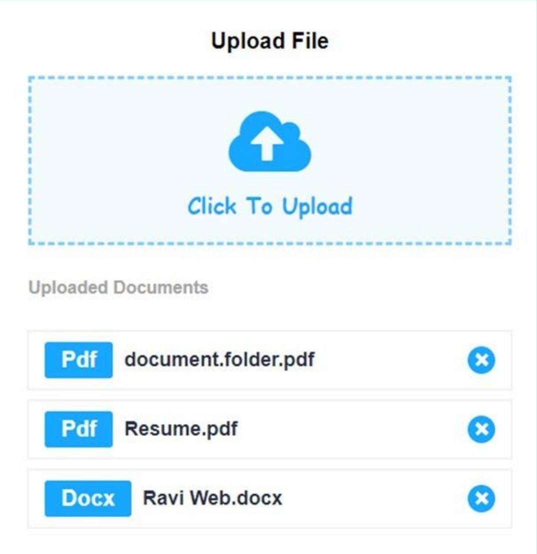
your@email.com

Subscribe



Start typing in here to take over and try it out

5423	Jondoe Donjoe	
12 / 12	121	Submit



Upload File

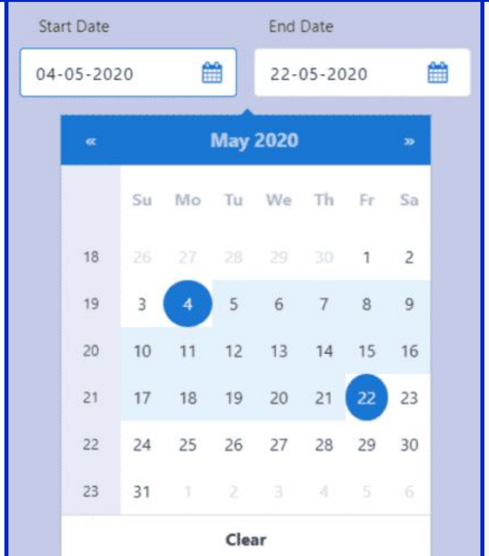
Click To Upload

Uploaded Documents

Pdf document.folder.pdf

Pdf Resume.pdf

Docx Ravi Web.docx



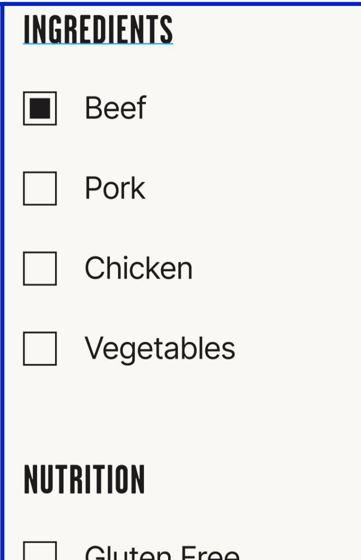
Start Date 04-05-2020

End Date 22-05-2020

« May 2020 »

	Su	Mo	Tu	We	Th	Fr	Sa
18	26	27	28	29	30	1	2
19	3	4	5	6	7	8	9
20	10	11	12	13	14	15	16
21	17	18	19	20	21	22	23
22	24	25	26	27	28	29	30
23	31	1	2	3	4	5	6

Clear



INGREDIENTS

☒ Beef

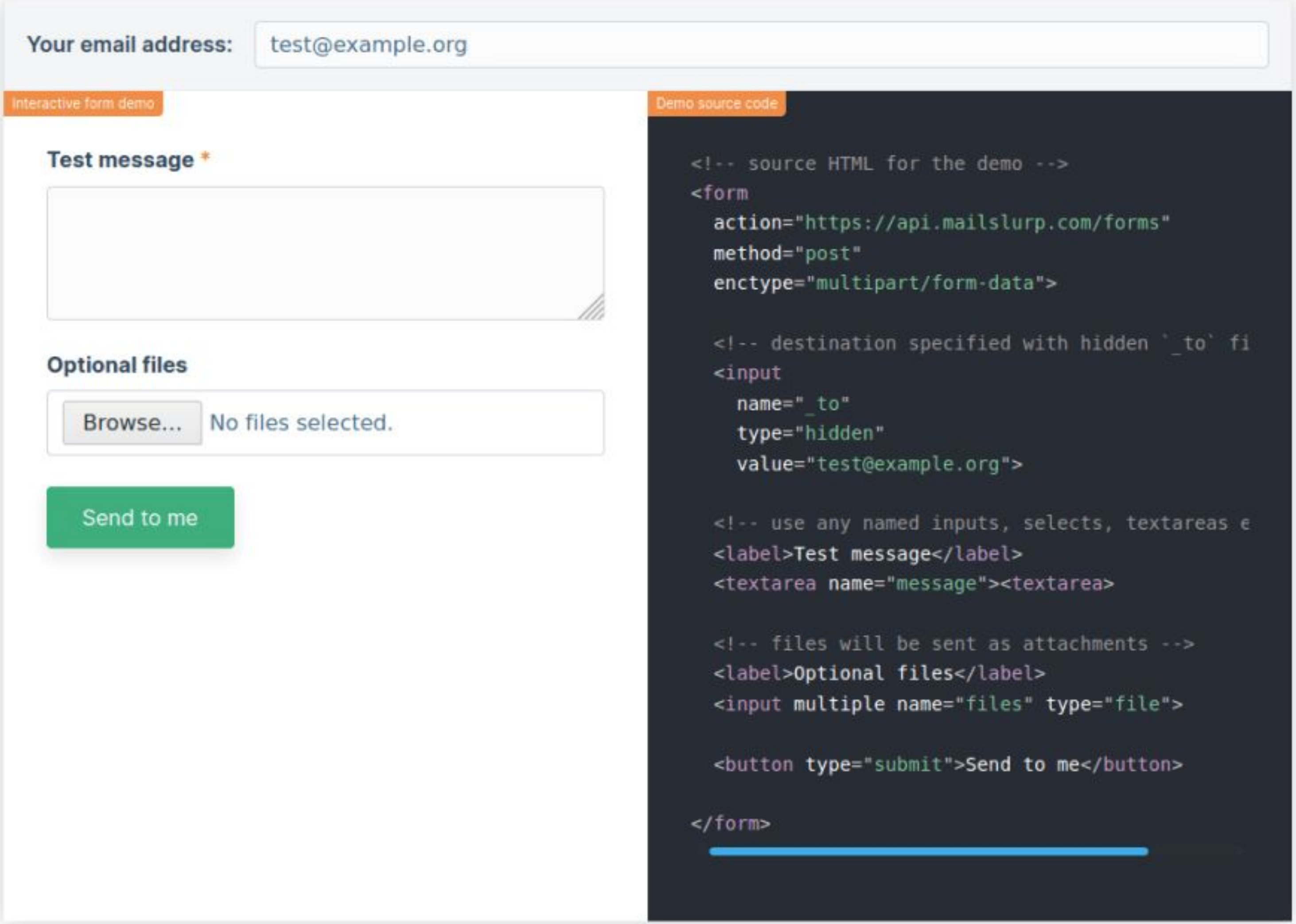
□ Pork

□ Chicken

□ Vegetables

NUTRITION

□ Gluten Free



Your email address: test@example.org

```
<!-- source HTML for the demo -->
<form
  action="https://api.mailslurp.com/forms"
  method="post"
  enctype="multipart/form-data">

  <!-- destination specified with hidden `_to` fi
  <input
    name="_to"
    type="hidden"
    value="test@example.org">

  <!-- use any named inputs, selects, textareas e
  <label>Test message</label>
  <textarea name="message"><textarea>

  <!-- files will be sent as attachments -->
  <label>Optional files</label>
  <input multiple name="files" type="file">

  <button type="submit">Send to me</button>

</form>
```

`<form>` Attributes

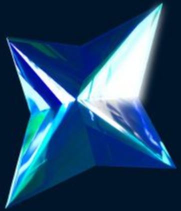
`action` – The **URL** where the form data will be sent

`method` – The HTTP method used for sending form data

- **GET** – Used to retrieve data
- **POST** – Used to send data, especially sensitive information

```
<form action="submit.php" method="post">
```

<input>



- Used to create interactive form controls for user data input.

- The default type is `text`

- One of the most powerful and complex HTML elements due to the vast number of input types and attributes.

```
<input type="text">
```

`input attributes`

– customize `<input>`

- These attributes add features and behaviors to the **`<input>`** elements.
- Attribute examples include **`size`**, **`value`**, **`maxlength`**, **`required`**, and many more.

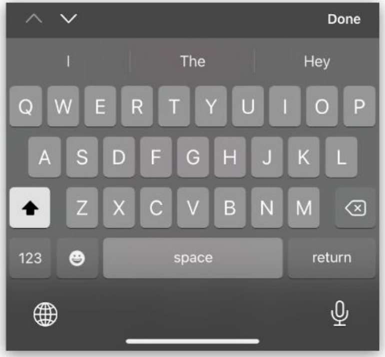
```
<input
    type="text"
    name="bro"
    required
    minlength="2"
    maxlength="8"
/>
```

input types

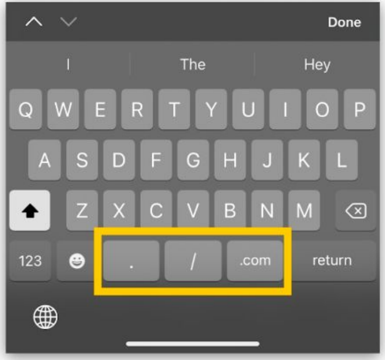
<input type="button">	Button
<input type="checkbox">	□ ✓ □
<input type="color">	🟥
<input type="date">	dd-mm-yyyy 📅
<input type="email">	farazc60@gmail.com
<input type="file">	Choose File No file chosen
<input type="hidden">	
<input type="image">	🖼
<input type="number">	5 ▲▼
<input type="password">	•••••••••
<input type="radio">	● ○
<input type="range">	
<input type="reset">	Reset
<input type="submit">	Submit
<input type="text">	codewithfaraz
<input type="url">	https://www.codewithfaraz.com

<input inputmode="..">

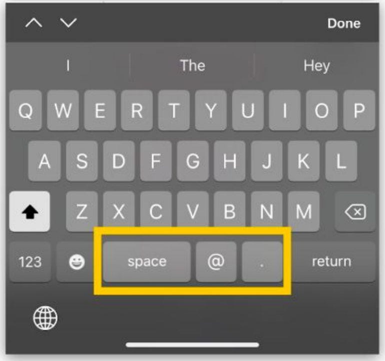
"none"



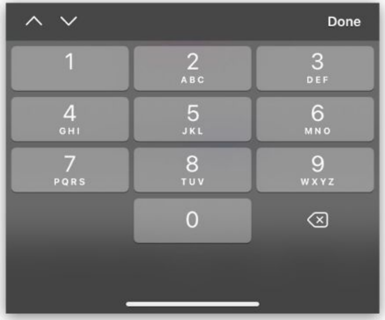
"text"



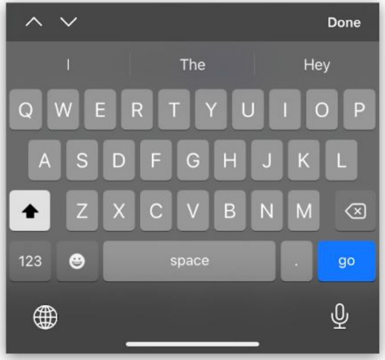
"url"



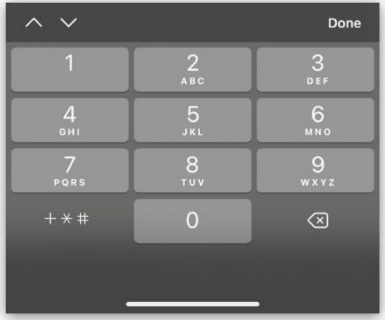
"email"



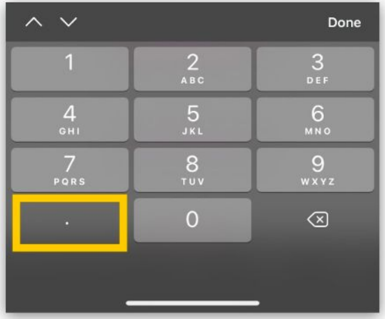
"numeric"



"search"



"tel"

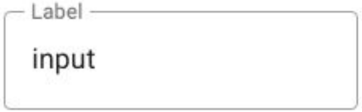


"decimal"

label

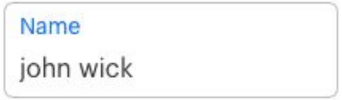
– description for form element

- linked using the **id** attribute
- clicking on the **label focus**es on the associated form element
- !every form element should have a corresponding label
- can be used for styling elements that are otherwise difficult to style



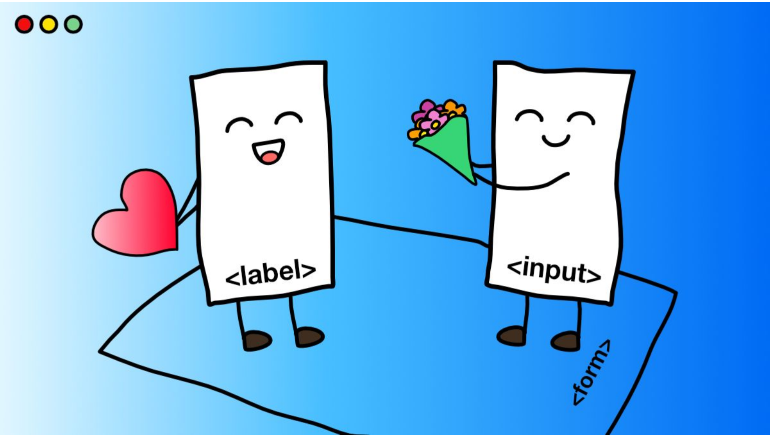
Label

input



Name

john wick



```
<input type="radio" name="vegetables" value="tomato"
id=”vegetables-tomato”>
<label for="vegetables-tomato"> Tomato </label>
```

Checkbox Usage Rules

– used to let a user select **one or more** options of a limited number of choices.

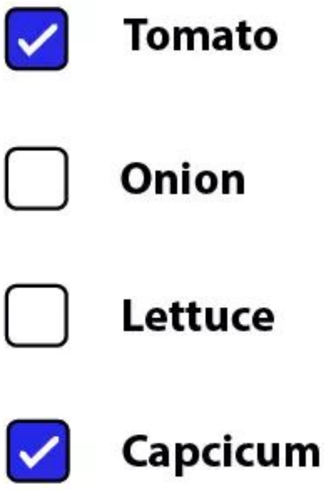
```
<input type="checkbox" name="vegetables" value="tomato"
class="radio visually-hidden" id=”checkbox-tomato”>
```

Required Attributes:

value – Must be unique for each checkbox

Optional:

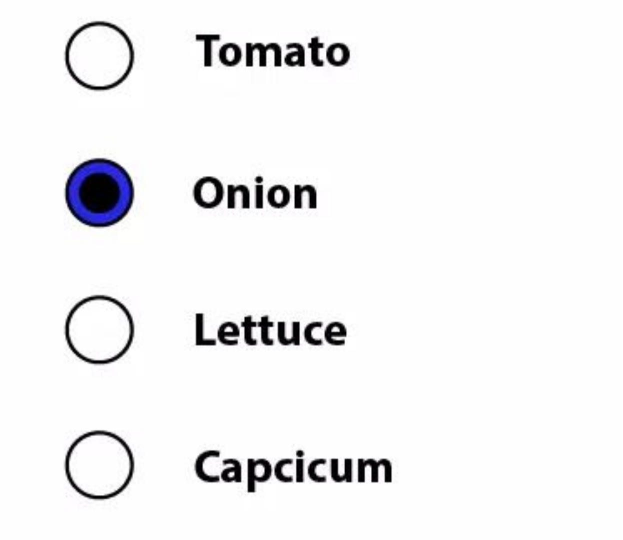
name – Should be the same for all checkboxes in a group



Radio Button Usage Rules

– used to let a user select **one** option of a limited number of choices.

```
<input type="radio" name="vegetables" value="onion" class="radio
visually-hidden" id=”vegetables-onion”>
```



○ Tomato

● Onion

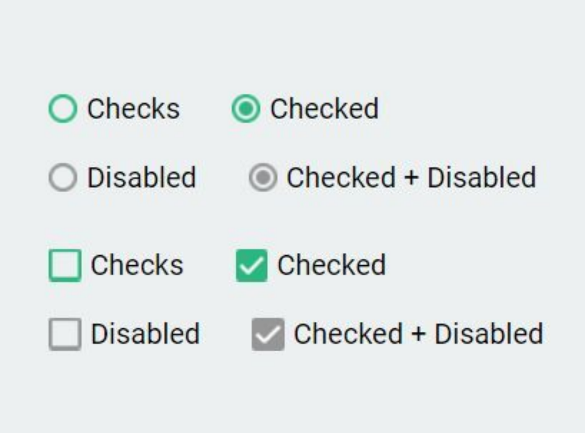
○ Lettuce

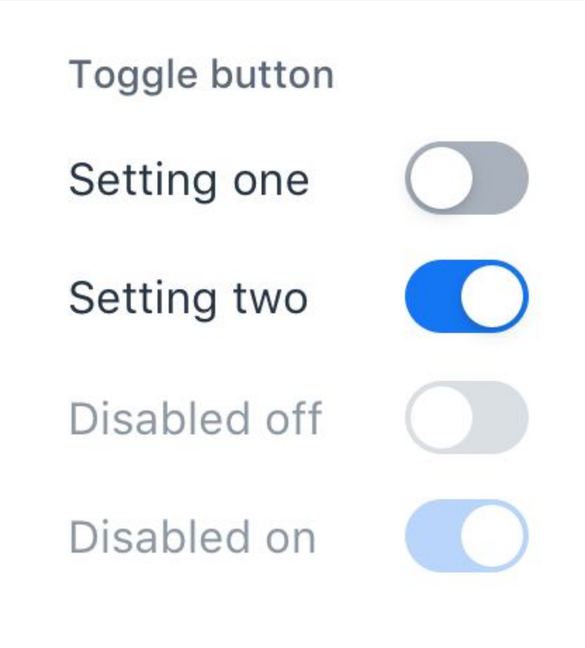
○ Capcicum

Required Attributes:

name – Required Attributes

value – Must be unique for each radio button





`<input>`

radio & checkbox

- radio and checkbox elements cannot be easily styled directly
  (though it is possible)
- Typically, the `input` element is hidden, and the associated `label` is styled instead
- Always consider the `checked` and `disabled` states for styling

Styling Radio & Checkbox

```
<input type="radio" name="weight" value="weight0" class="radio
visually-hidden" id=”weight0”>

<label for="weight0">0%</label>
```

Styles for Unchecked Elements:

```
.radio:not(:checked) + label {}
```

Styles for Checked Elements:

```
.radio:checked + label {}
```

Accessible input hiding

```
<input type="radio"class="visually-hidden">
```

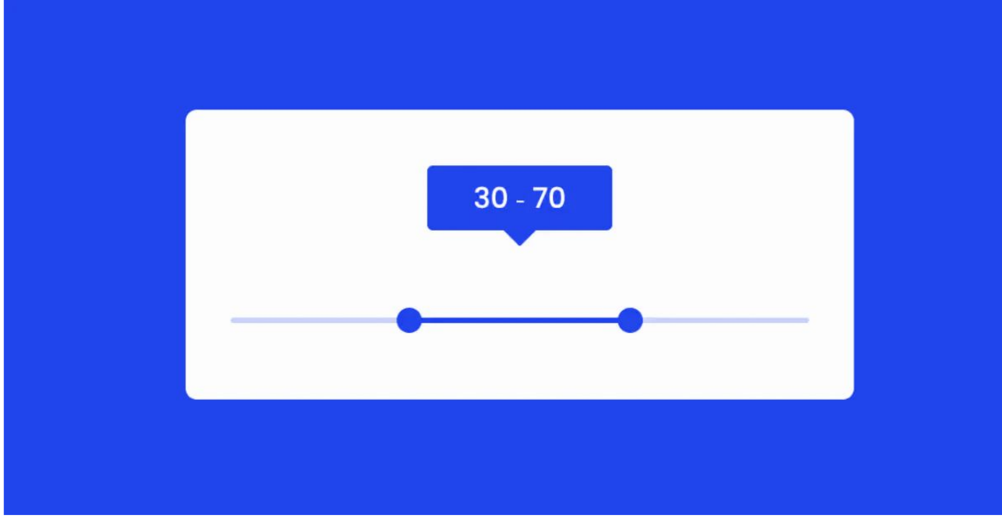
~~display: none;~~

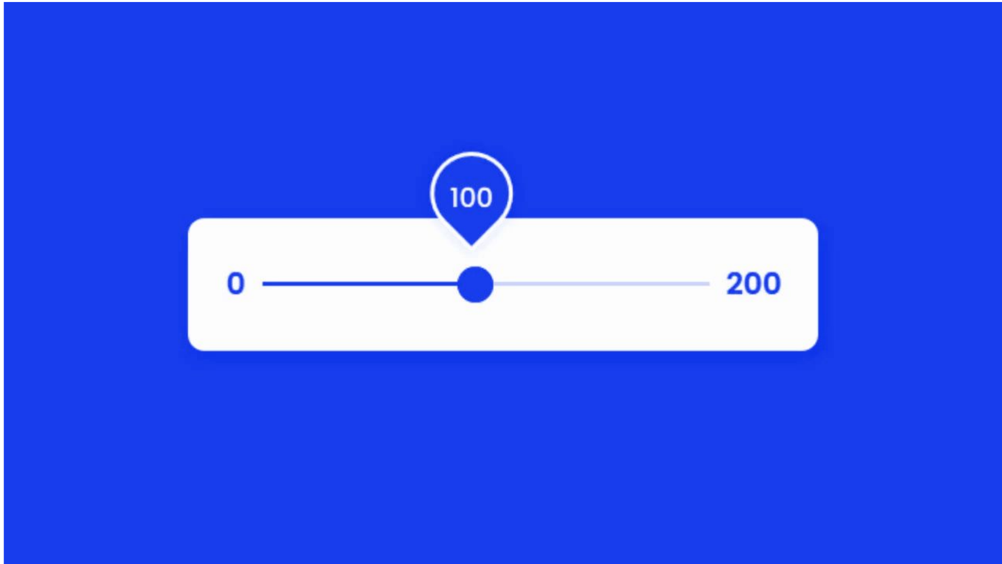
```
.visually-hidden:not(:focus):not(:active) {
  clip: rect(0 0 0 0);
  clip-path: inset(50%);
  height: 1px;
  overflow: hidden;
  position: absolute;
  white-space: nowrap;
  width: 1px;
}
```

input range

- Has a single slider
- Difficult to style
- usually requires a plugin for more complex controls

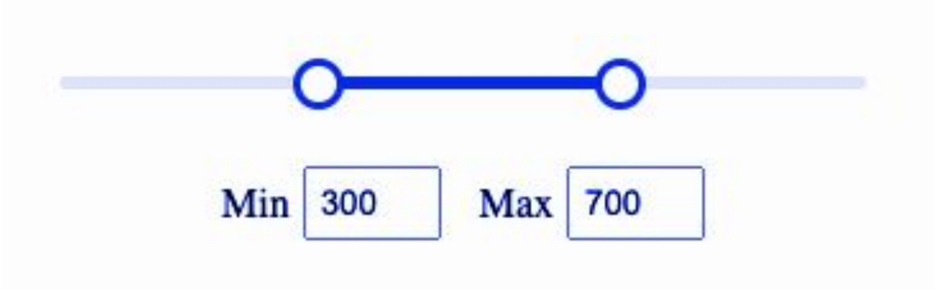
For styling, consider using a JS plugin like AlRangeSlider.





input range in HTML

```
<div class=”range”>
    <button class=”range-button is-min></button>
    <button class=”range-button is-max></button>
    <div class=”range-line”></div>
    <div class=”range-line is-selected”></div>
    <div class=”range-container>
        <div class=”range-min”> Min
            <input type=”number”>
        </div>
        <div class=”range-max”> Max
            <input type=”number”>
        </div>
    </div>
</div>
```



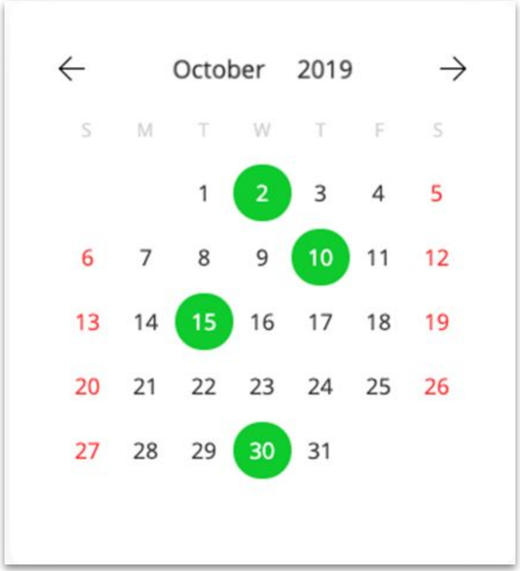
Min 300 Max 700

styling datepicker📅

```
<input type="date">
```

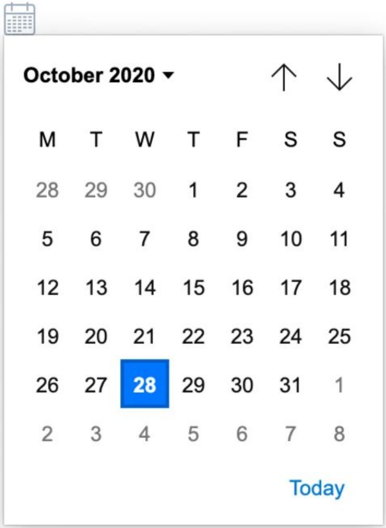
- Cannot be styled natively.

- Use JS plugins like [Air datepicker](#) for custom styling



← October 2019 →

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		



October 2020 ▾ ↑ ↓

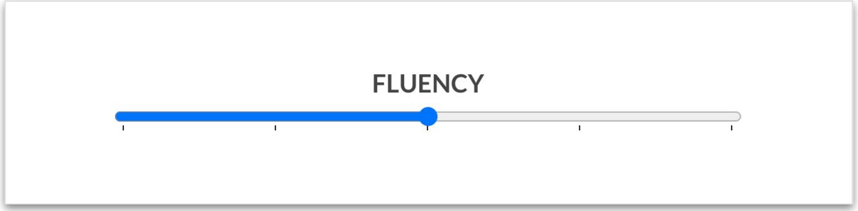
M	T	W	T	F	S	S
28	29	30	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1
2	3	4	5	6	7	8

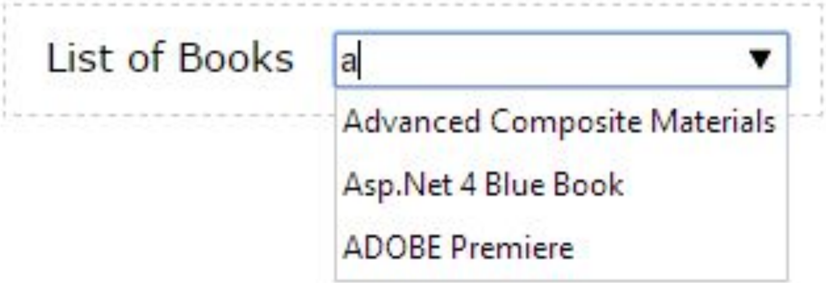
Today

datalist

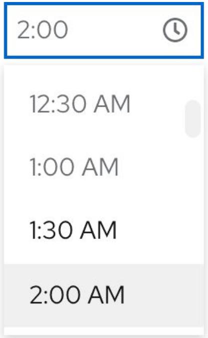
- Provides a list of options for an **`input`** element.
- You can select an option from the list instead of entering it manually
- Works with specific input types such as:

`text, search, range, color, number, date, time, tel, email`

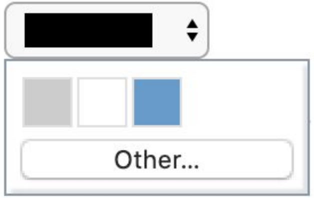


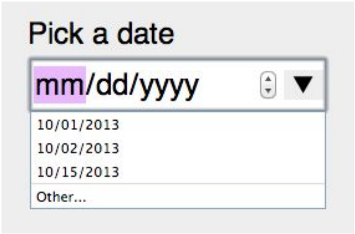

List of Books a

datalist


2:00
12:30 AM
1:00 AM
1:30 AM
2:00 AM

```
<input list="options" name="input_name">
<datalist id="options">
  <option value="option 1">
  <option value="option 2">
  <option value="option 3">
</datalist>
```


Other...

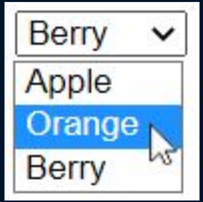

Pick a date
mm/dd/yyyy
10/01/2013
10/02/2013
10/15/2013
Other...

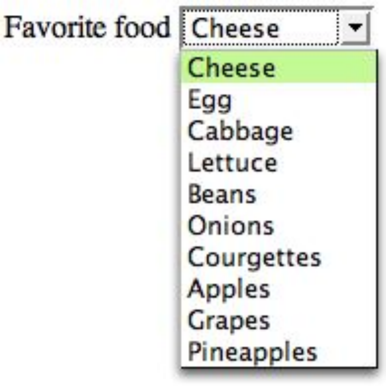
select

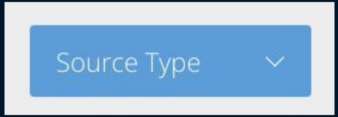
- Dropdown menu allowing the selection of one or multiple options

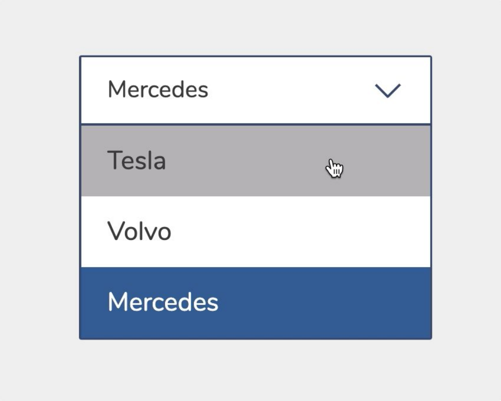
- The dropdown button can be partially styled, but not the arrow

- The dropdown cannot be natively styled



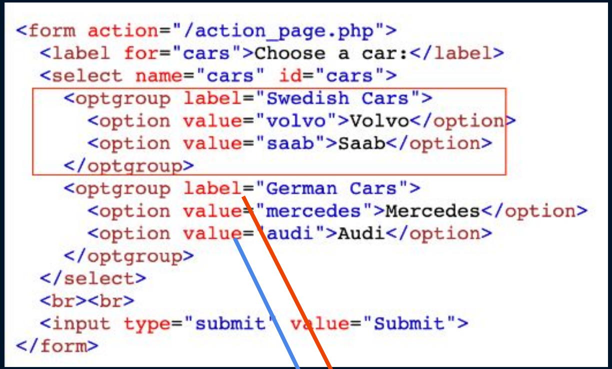




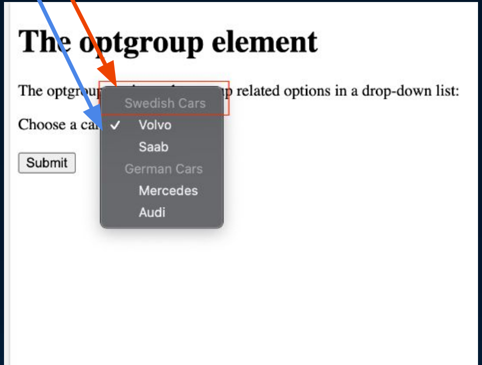


select

```
<select>
  <option value=”apple”>Apple</option>
  <option value=”orange”>Orange</option>
  <option value=”berry”>Berry</option>
</select>
```



```
<form action="/action_page.php">
  <label for="cars">Choose a car:</label>
  <select name="cars" id="cars">
    <optgroup label="Swedish Cars">
      <option value="volvo">Volvo</option>
      <option value="saab">Saab</option>
    </optgroup>
    <optgroup label="German Cars">
      <option value="mercedes">Mercedes</option>
      <option value="audi">Audi</option>
    </optgroup>
  </select>
  <br><br>
  <input type="submit" value="Submit">
</form>
```



The optgroup element

The optgroup p related options in a drop-down list:

Choose a ca

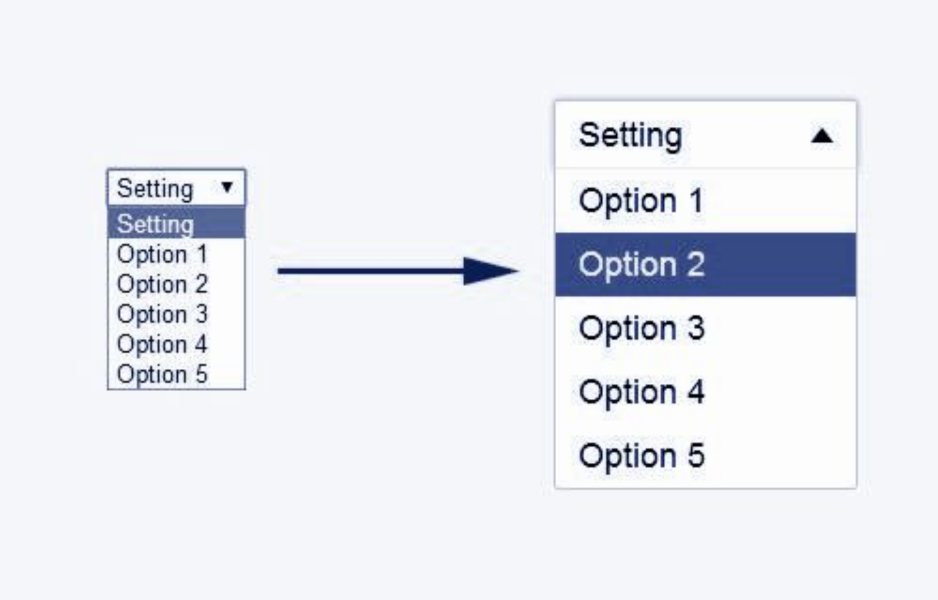
option – an element in a dropdown list

value – the value of the element that will be sent to the server; a required attribute

optgroup – an element used to group items in a dropdown list

label – an attribute that sets the title for a group (the title is not clickable)

styling `select`



Using JavaScript libraries.

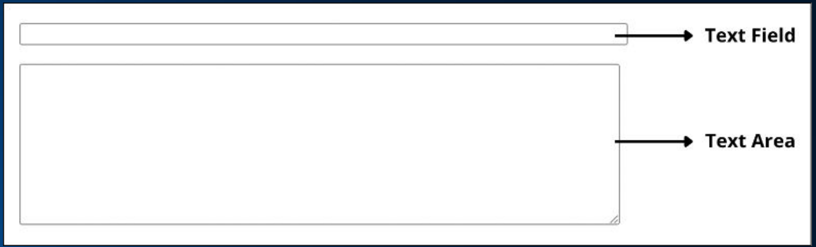
They create a separate element next to the `<select>` for styling purposes, while hiding the original `<select>` element.
When an option is selected, the choice is passed to the hidden `<select>`, which is then submitted with the form.

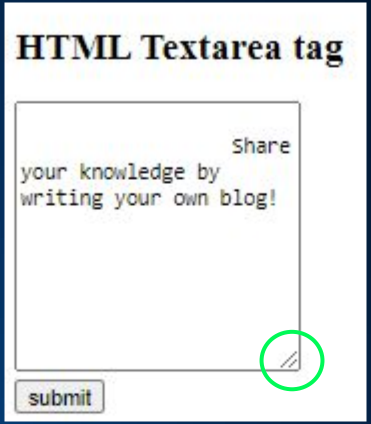
For example, **jQuery Nice Select**.

textarea

- **Allows multi-line text input**

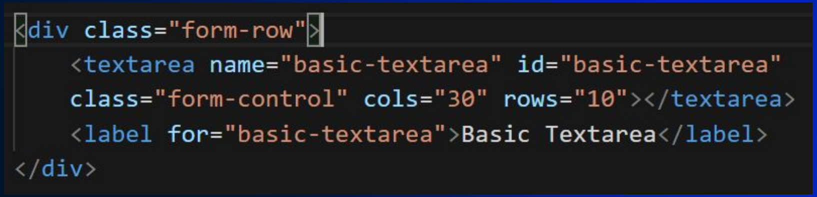
- By default, it is resizable. This can be disabled using CSS




HTML Textarea tag

Share your knowledge by writing your own blog!

textarea



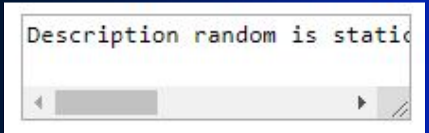
```
<div class="form-row">
    <textarea name="basic-textarea" id="basic-textarea"
    class="form-control" cols="30" rows="10"></textarea>
    <label for="basic-textarea">Basic Textarea</label>
</div>
```

Attributes:

`cols` – specifies the width of the textarea in terms of the number of text columns

`rows` – specifies the number of text lines it can display at a time (height)

instead of using this attributes, you might set the width and height in your CSS



Description random is static

if you want to prevent users from resizing:

```
textarea {
    resize: none;
}
```

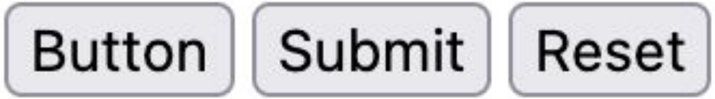
button

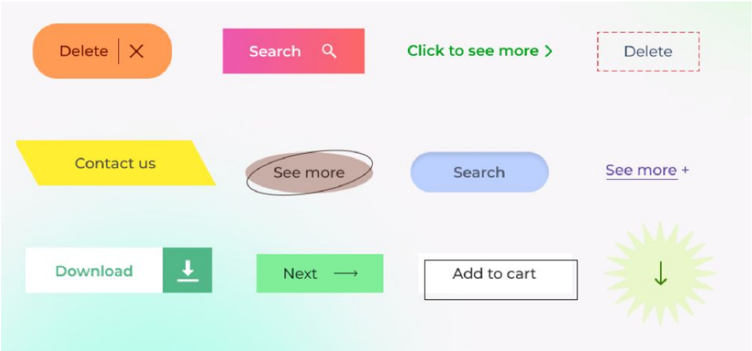
button – A generic button for any action

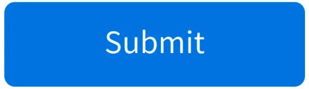
submit – Submits the form data to the server

reset – Resets the form data to its initial state

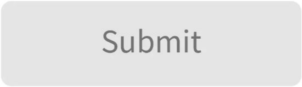
The `disabled`, attribute can be used to prevent the form from being submitted



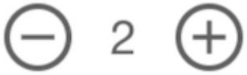


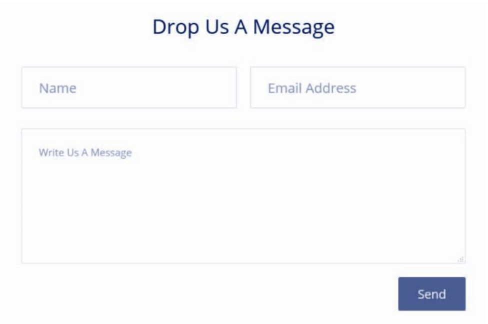


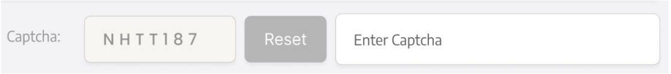
Button Enabled

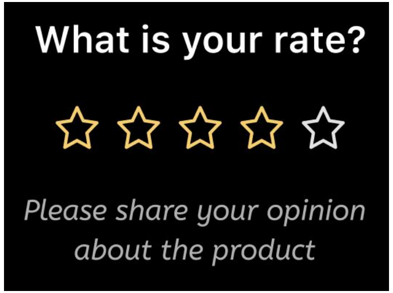


Button Disabled



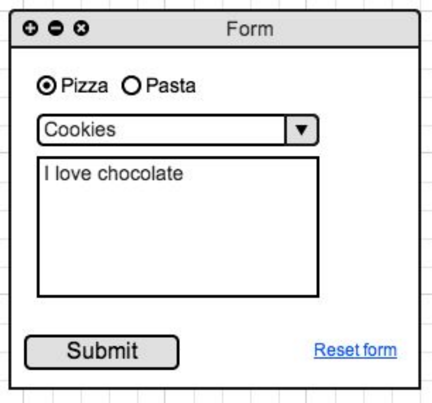





What is your rate?

☆ ☆ ☆ ☆ ☆

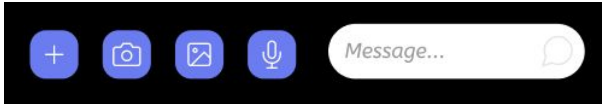
Please share your opinion about the product

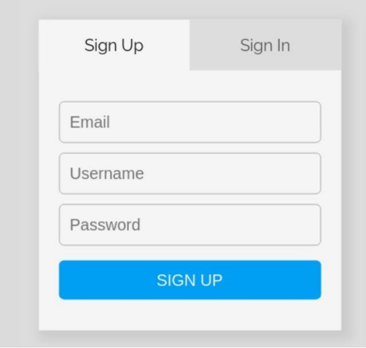


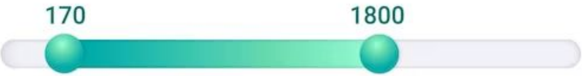
● Pizza ○ Pasta

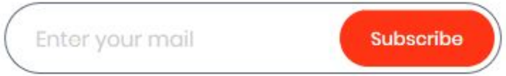
Cookies ▼

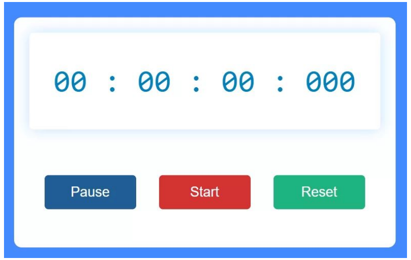
I love chocolate







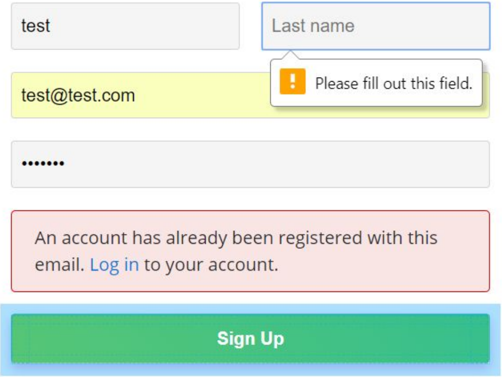




form validation

- Validates form data according to specific rules

- Methods for validation include:
  - html → 1. Use the appropriate **`input type`**
    2. Add the **`required`** attribute where necessary
    3. Use the **`pattern`** attribute for custom validation rules
    4. Style inputs and validation messages using pseudo-classes like **`:invalid`**, **`:valid`**
  - js



test

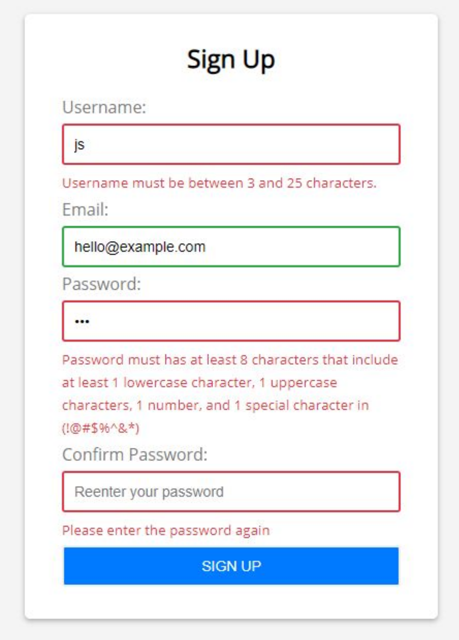
Last name

Please fill out this field.

test@test.com

•••••••

An account has already been registered with this email. Log in to your account.



Sign Up

Username:

js

Username must be between 3 and 25 characters.

Email:

hello@example.com

Password:

•••

Password must has at least 8 characters that include at least 1 lowercase character, 1 uppercase characters, 1 number, and 1 special character in (!@#$%^&*)

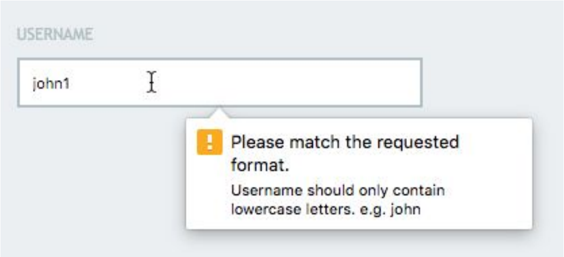
Confirm Password:

Reenter your password

Please enter the password again

input attribute pattern

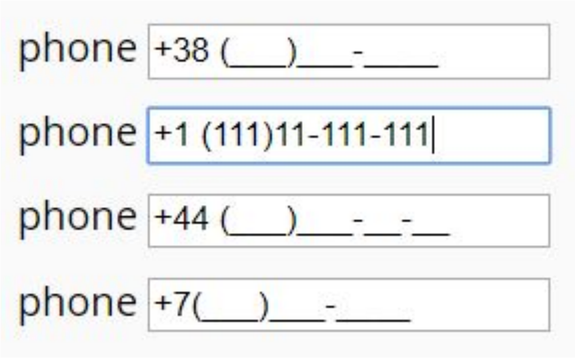
— helps ensure data is entered in the correct format
— provides a prompt or error message if the data doesn't match the pattern
— ask ChatGPT to help you create the right pattern



USERNAME

john1

Please match the requested format.
Username should only contain lowercase letters. e.g. john



phone +38 (___)___-____

phone +1 (111)11-111-111

phone +44 (___)___-__-__

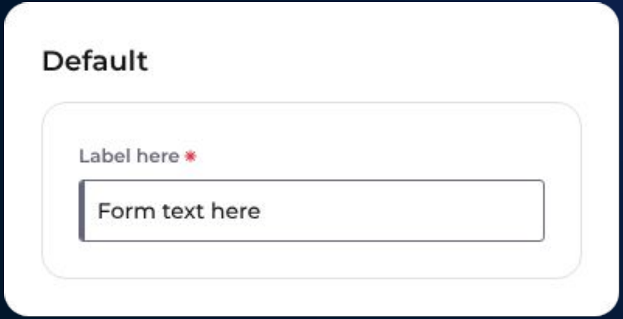
phone +7(___)___-____

pattern="[A-Za-z]{5}"
This pattern requires 5 characters, allowing both uppercase and lowercase Latin letters.

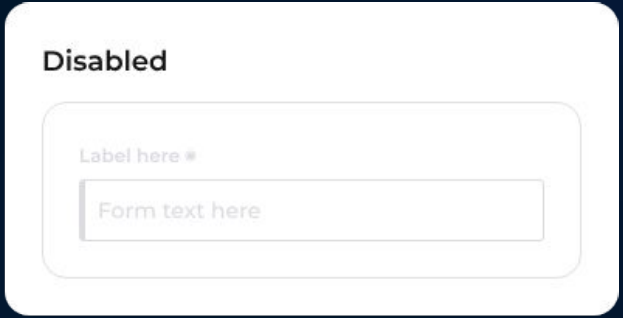
```
<input type="email" pattern="[a-z0-9._%+-]+@[a-z0-9.-]+\.[a-z]{2,}$">
```

User interface pseudo-class selectors

- `:disabled` – element that is disabled (using the `disabled attribute`)
- `:enabled` – elements that do not have the `disabled attribute`
- `:default` – the element that is the default among a group of similar elements



Default

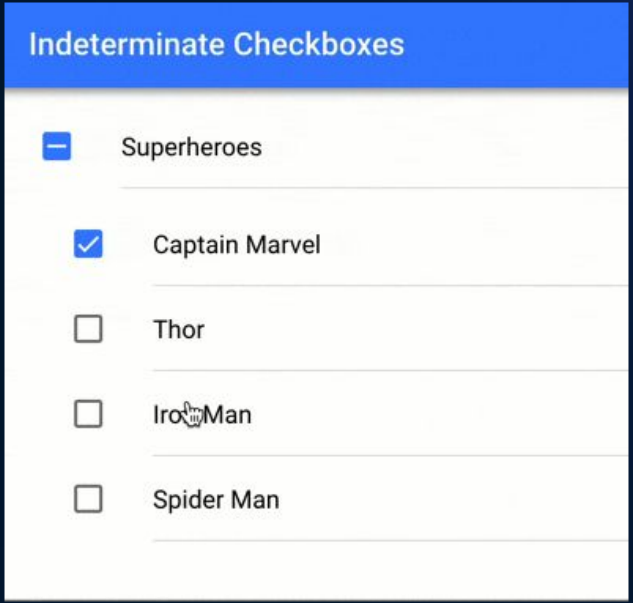


Disabled

User interface pseudo-class selectors

- `:checked` – `radio or checkbox` elements that have the checked attribute or have been selected by the user

- `:indeterminate` – `radio or checkbox` elements that are in an intermediate state, without the checked attribute or not selected by the user



Indeterminate Checkboxes

⊟ Superheroes

☑ Captain Marvel

☐ Thor

☐ Iron Man

☐ Spider Man

User interface pseudo-class selectors

- `:in-range` – highlights an element when the user's input falls within the specified range

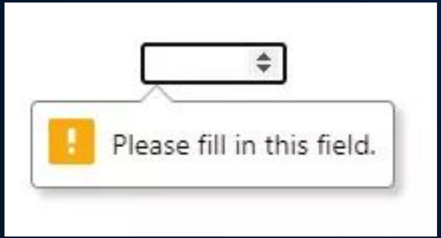
- `:out-of-range` – highlights an element when the user's input falls outside the specified range

-
  ```
  input:in-range { }
  <input min="1" max="10">
  ```

User interface pseudo-class selectors

- `:required` – targets elements that have the required attribute (indicating that the field is mandatory)

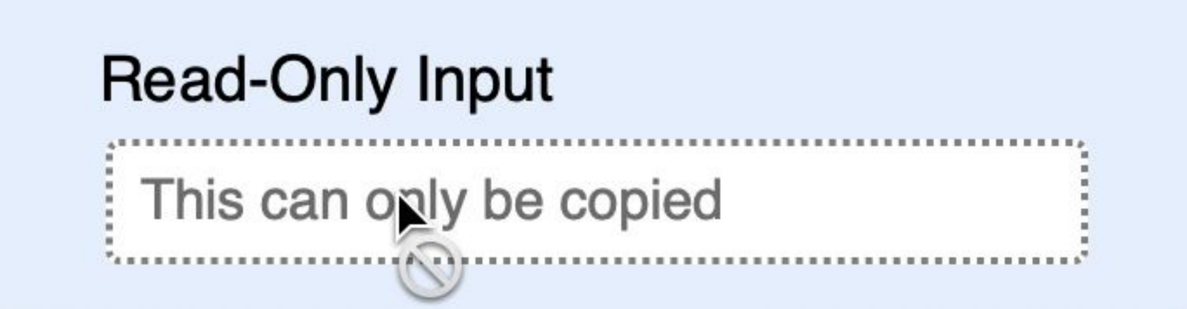
- `:optional` – targets elements that do not have the required attribute



Please fill in this field.

User interface pseudo-class selectors

- `:read-only` – targets elements with the readonly attribute (indicating that the user cannot change the element's value)
- `:read-write` – targets elements that do not have the readonly attribute



Read-Only Input

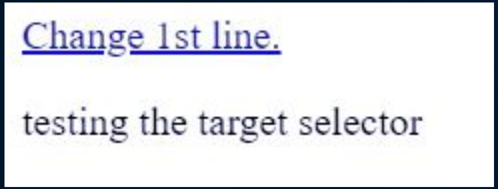
This can only be copied

User interface pseudo-class selectors

- `:target` – applies styles to elements that are referenced by a fragment identifier (ID) in a URL.

```
<a href="#one">Link</a>
<p id="one"> Target element </p>

p:target {
    background-color: red;
    color: white;
}
```



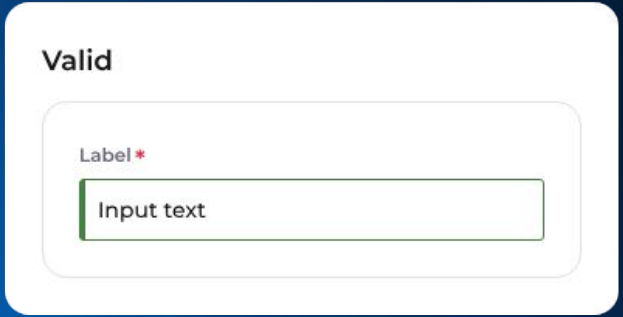
Change 1st line.

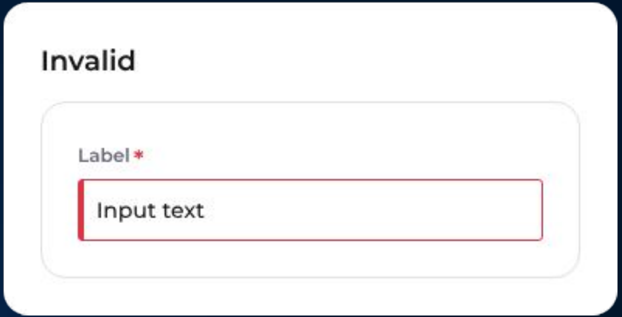
testing the target selector

User interface pseudo-class selectors

- `:valid` – highlights an element when the entered data meets the specified patterns

- `:invalid` – highlights an element when the entered data does not meet the specified patterns.

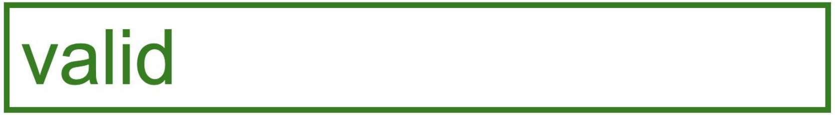




styling `valid & invalid`

Data entered correctly:

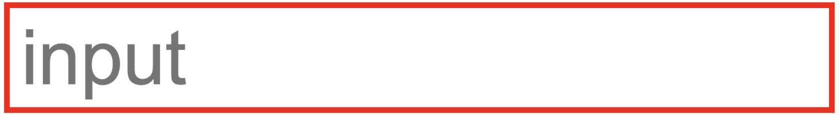
```css
input:valid {border-color: green;}
```



valid

Data entered incorrectly:

```css
input:invalid {border-color: red;}
```



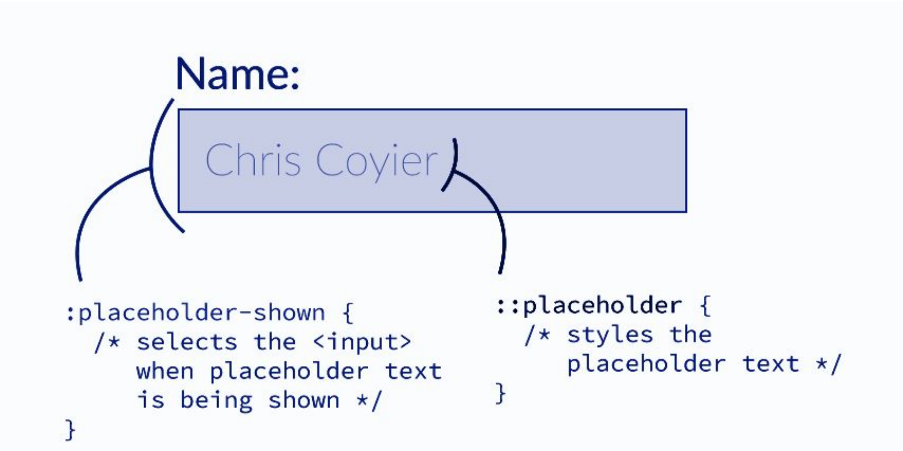
input

Note: This works even if the input is empty, because an empty value is also considered invalid.

Pseudo-elements

`::placeholder` – Styles the placeholder text inside an **`input`** or **`textarea`**, when nothing is entered into it

`::placeholder-shown` – represents any **`input`** or **`textarea`** element that is currently displaying placeholder text.



```
:placeholder-shown {
  /* selects the <input>
     when placeholder text
     is being shown */
}
```

```
::placeholder {
  /* styles the
     placeholder text */
}
```

styling valid & invalid

Considering whether data has been entered into the input:

```
input:invalid:not(:placeholder-shown) {border-color: red;}
input:valid:not(:placeholder-shown) {border-color: green;}
```

This checks whether the placeholder is visible (it's not visible if data has been entered in the field)

styling valid & invalid

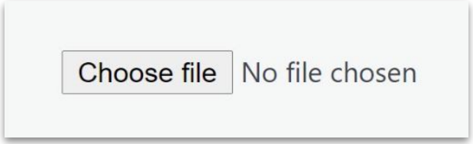
Considering whether the input is focused:

```
input:invalid:not(:placeholder-shown):not(:focus)
{border-color: red}
```

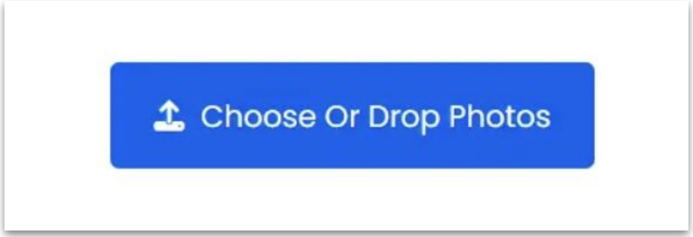
This checks whether the placeholder is visible and whether the field is in focus. If the field is focused, the user might still be entering data, so it may be too early to validate.

---

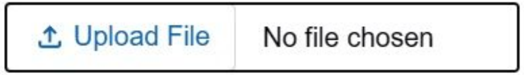
styling □file upload□input



- Styled using pseudo-elements.
- Icons can be added using pseudo-elements.



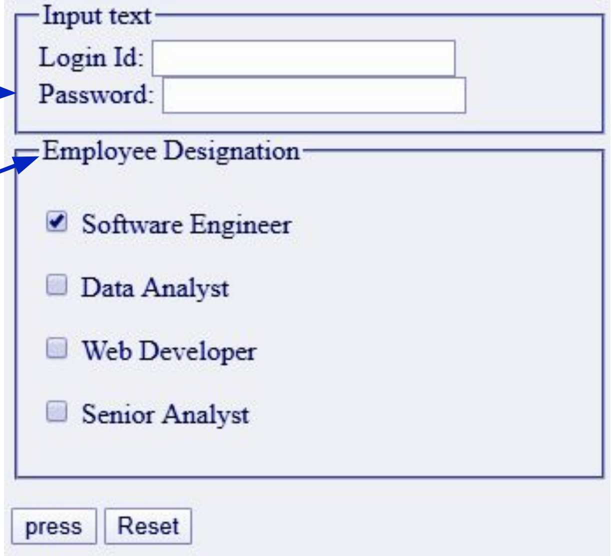
::file-selector-button – Styles the button for **<input type=”file”>**



```
input[type="file"]::file-selector-button {}
input[type="file"]::before {}
```

Grouping Elements

- **`<fieldset>`** – Groups related elements within a form
- **`<legend>`** – A caption for the fieldset
  – The caption is offset upwards, which can make it difficult to align with other elements
  – It does not respond to **`flex`** layout properties applied to the **`fieldset`**



Input text

Login Id:

Password:

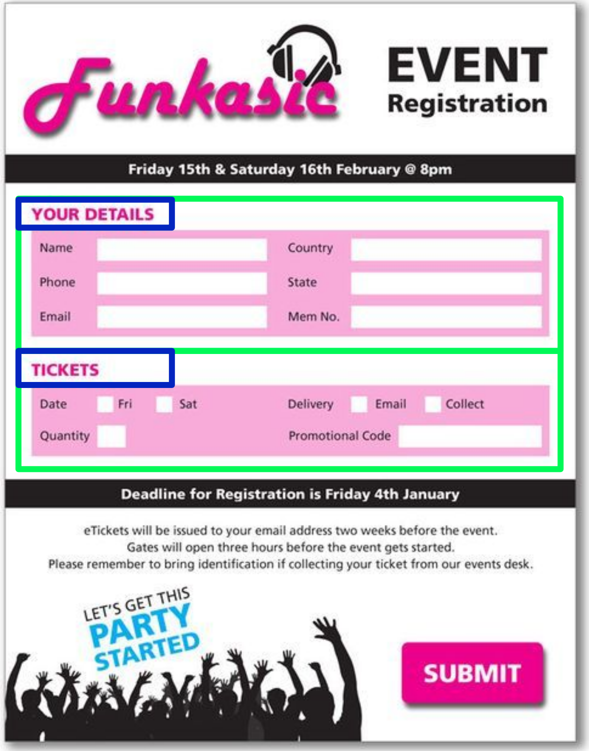
Employee Designation

☑ Software Engineer

□ Data Analyst

□ Web Developer

□ Senior Analyst



Funkasic EVENT Registration

Friday 15th & Saturday 16th February @ 8pm

YOUR DETAILS

Name		Country	
Phone		State	
Email		Mem No.	

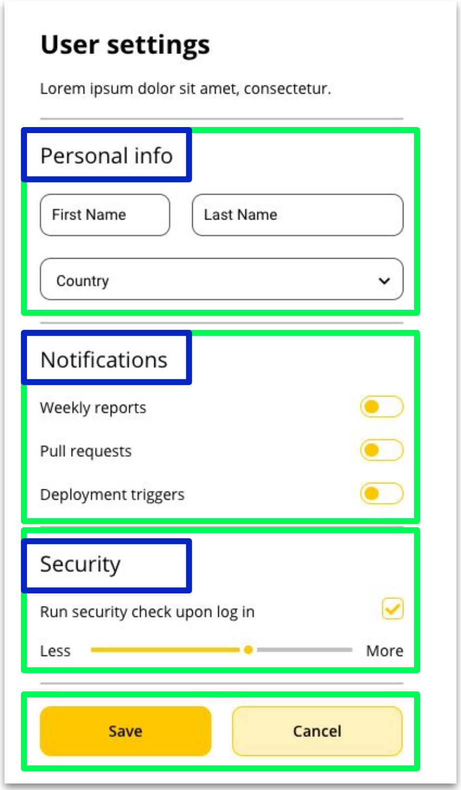
TICKETS

Date □ Fri □ Sat Delivery □ Email □ Collect

Quantity □ Promotional Code

Deadline for Registration is Friday 4th January

eTickets will be issued to your email address two weeks before the event.
Gates will open three hours before the event gets started.
Please remember to bring identification if collecting your ticket from our events desk.



User settings

Lorem ipsum dolor sit amet, consectetur.

Personal info

First Name | Last Name

Country

Notifications

Weekly reports

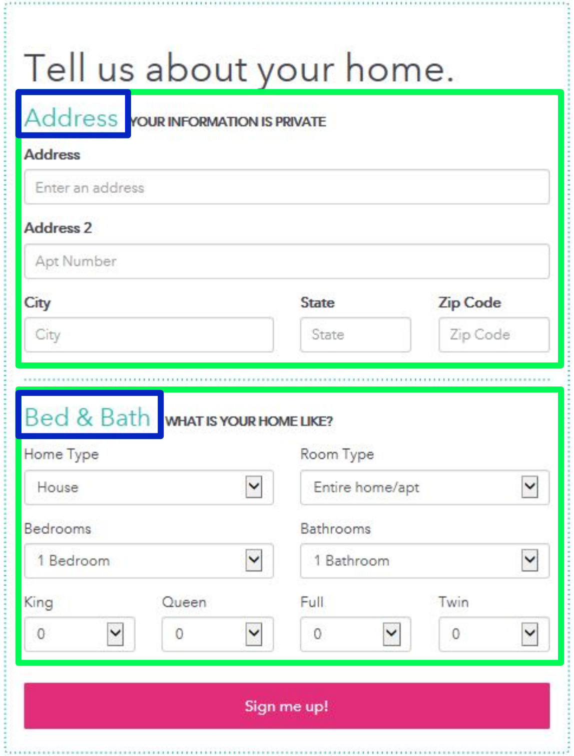
Pull requests

Deployment triggers

Security

Run security check upon log in ☑

Less — More



Tell us about your home.

Address

YOUR INFORMATION IS PRIVATE

Address: Enter an address

Address 2: Apt Number

City: City | State: State | Zip Code: Zip Code

Bed & Bath

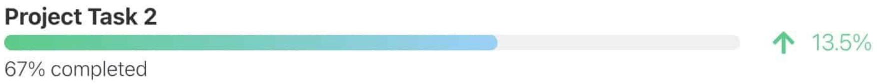
WHAT IS YOUR HOME LIKE?

Home Type: House | Room Type: Entire home/apt

Bedrooms: 1 Bedroom | Bathrooms: 1 Bathroom

King: 0 | Queen: 0 | Full: 0 | Twin: 0

progress



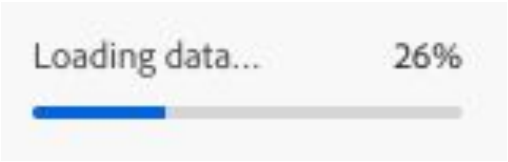
Project Task 2

67% completed

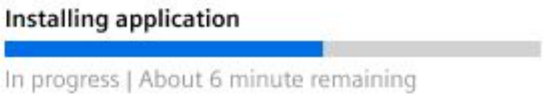
↑ 13.5%

– displays the progress of long-running processes.

- Progress of filling out a registration form.
- Task completion progress.
- Progress of uploading a large file.
- Progress of course completion in online learning.
- Game progress as levels are completed.

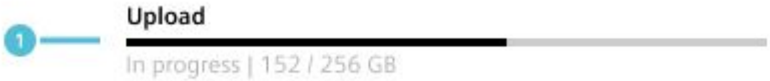


Loading data... 26%



Installing application

In progress | About 6 minute remaining



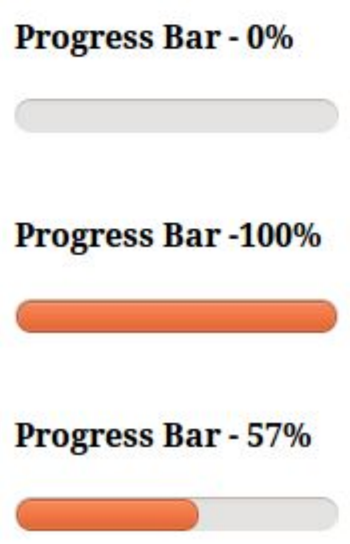
1

Upload

In progress | 152 / 256 GB

progress

```
<label for="progress-bar">Downloading</label>
<progress
  id="progress-bar"
  value="57"
  max="100"
  title="percentage">
</progress>
```



Progress Bar - 0%

Progress Bar -100%

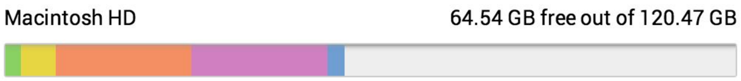
Progress Bar - 57%

max – the maximum value (a number greater than 0)

value – the current value (a number between 0 and **max**)

meter

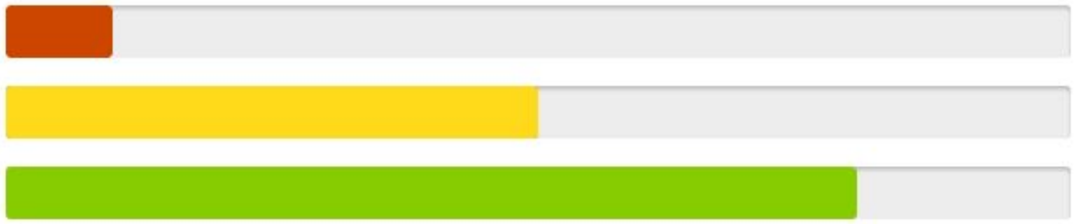
– displays a scalar measurement within a known range



Macintosh HD

64.54 GB free out of 120.47 GB

- Password strength
- Battery level
- Sound volume



meter

```
<label for="vote"></label>
<meter
    id='vote'
    value='75'
    min='0'
    max='100'>
</meter>
```

value — current value on the scale

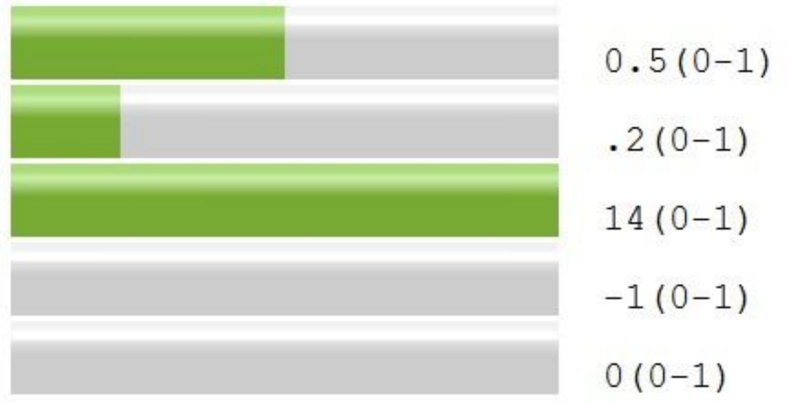
min — minimum value

max — maximum value

low — lower threshold value

high — upper threshold value

optimum — optimal threshold value



appearance

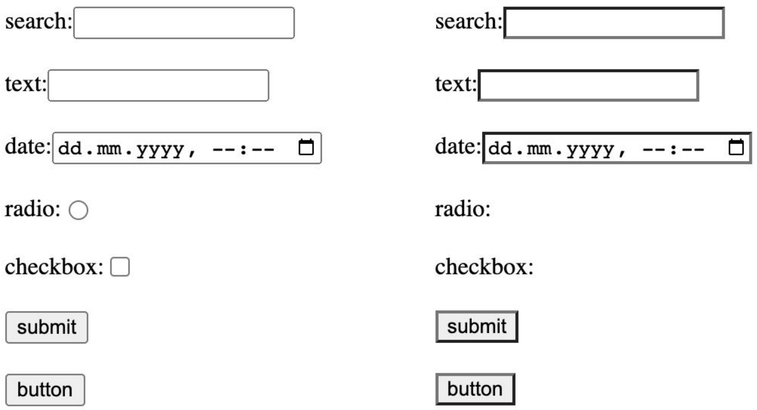
`appearance: none` – resets the appearance of an element to a consistent style across all browsers and operating systems

`appearance` other than **none** – used to apply specific styles to elements that do not have those styles by default

```
appearance: searchfield;
```

The default styling applied by the browser:

```
appearance: auto;
```

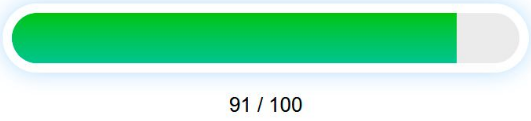


styling progress

```
progress {
  appearance: none;
}

progress::-webkit-progress-bar {
   background-color: grey;
}

progress::-webkit-progress-value {
   background-color: green;
}
```

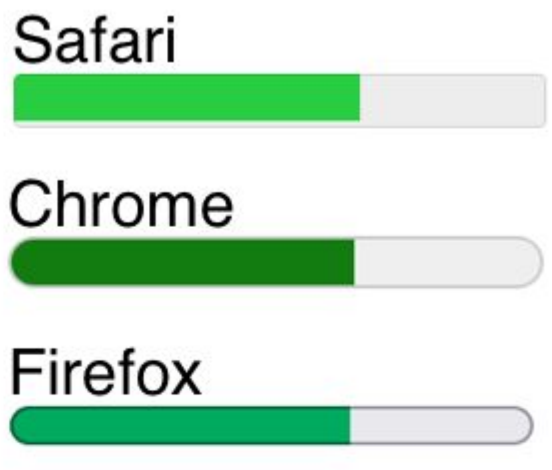


meter

```
meter {
  appearance: none;
}

meter::-webkit-meter-bar {
  background: none;
    /* Required to get rid of the default background property */
  background-color: grey;
}

meter::-webkit-meter-optimum-value {
  background-color: green;
}
```



Quality Criteria for HTML Course

❤️Mandatory for passing the course

💛Required for the highest grade

💚Optional

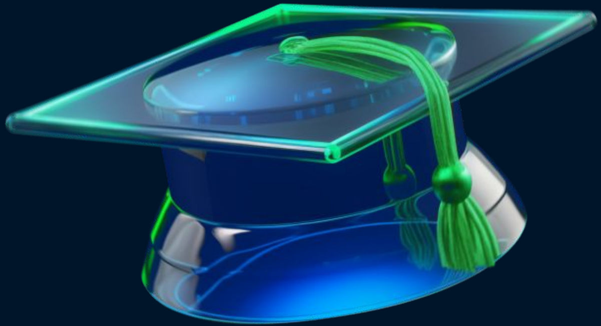
❤️ 1.19. Each form element should have a <label>.

💛 1.20. Resizing <textarea> should not break the layout.

❤️ 1.21. Basic HTML form validation should be implemented.

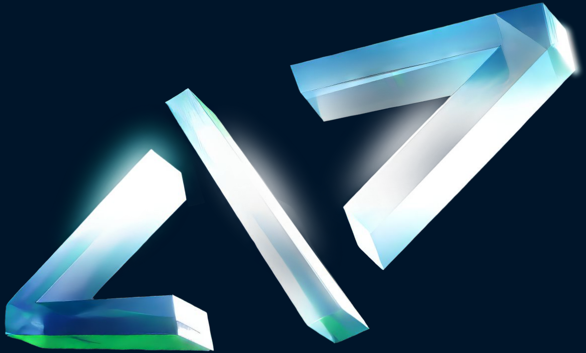
Summary

1. The importance of forms on websites.
2. Components of forms.
3. How to solve styling issues with form elements.
4. How to validate form data.
5. Interactive tags outside of forms.



Homework

1. Complete the Lesson about forms elements
2. Markup and Style Forms in Binabox:
   - ○ Specify Button Types
   - ○ Validate Your Forms

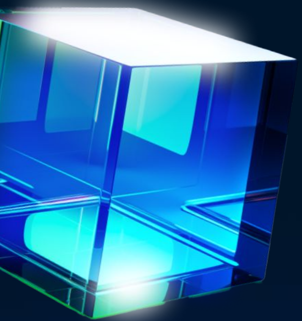


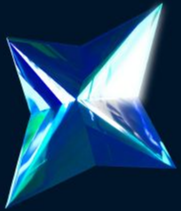
BRO Academy

QUESTIONS?

Please fill out the feedback form

It’s very important for us





THANK YOU!

Have a good evening!