

WMNFE 2210

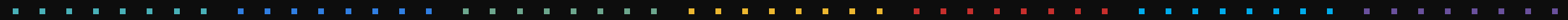
FRONT-END DEVELOPMENT

JavaScript #7 | Forms





ΠΕΡΙΕΧΟΜΕΝΑ



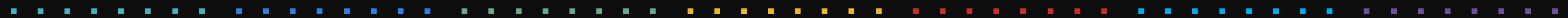


Περιεχόμενα

- Form elements
 - Accessing forms / elements
 - Text/Password fields
 - Checkboxes
 - Radio buttons
 - Buttons
- Simple checks / validation
- Useful Events
 - **change**
 - **blur / focus**
 - **submit**



FORM ELEMENTS





Form elements

Accessing forms

There is a special **HTMLCollection** just for **HTMLFormElement** items

```
document.theForm;           // by 'name'
document.forms.theForm;     // by 'id' or 'name'
document.forms[0];          // by index

// When the name has no valid characters
document.forms['the-form']   // by 'id' or 'name'

// The following is still valid
document.getElementById('theForm'); // by 'id'
```



Form elements

Accessing form elements

```
const theForm = document.theForm;

theForm.elements.firstName;           // by 'id' or 'name'
theForm.firstName;                    // by 'id' or 'name'

// When the name has no valid characters
theForm.elements['first-name'];       // by 'id' or 'name'

// or maybe by
document.forms['the-form']['first-name'];
```



Form elements

Text/Password fields

```
<form id="login-form" name="login-form">
  <label for="username">User name:</label>
  <input type="text" id="username" name="username">
  <label for="password">Password:</label>
  <input type="password" id="password" name="password">
</form>
```



Form elements

Text/Password fields

Getting/setting the value from/to a text field

```
const username = document.forms['login-form'].elements['username'];  
console.log(username.value);  
  
username.value = '';  
console.log(username.value);
```




Form elements

Radio Buttons

```
<form id="genders" name="genders">
  <input type="radio" id="gender-male" name="gender" value="male" checked>
  <label for="gender-male">Male</label>
  <input type="radio" id="gender-female" name="gender" value="female">
  <label for="gender-female">Female</label>
  <input type="radio" id="gender-other" name="gender" value="other">
  <label for="gender-other">Other</label>
</form>
```



Form elements

Radio Buttons

Getting the value of the selected radio button

```
const other = document.forms.genders.elements['gender-other'];  
console.log(other.checked);  
other.checked = true;  
  
const gender = document.forms.genders.elements['gender'];  
console.log(gender); // RadioNodeList  
console.log(gender.value);
```



Form elements

Checkboxes

```
<form id="hobbies" name="hobbies">
  <input type="checkbox" id="basketball" name="sports" value="basketball">
  <label for="basketball">Basketball</label>
  <input type="checkbox" id="football" name="sports" value="football">
  <label for="football">Football</label>

  <input type="checkbox" id="consent" name="consent" value="consent">
  <label for="consent">Consent</label>
</form>
```



Form elements

Checkboxes

Getting the values of the selected checkboxes

```
const form = document.forms['hobbies'];
console.log(form.elements['sports']);           // RadioNodeList
console.log(form.elements['sports'].value);

// ES6
const values = Array
  .from(document.querySelectorAll('input[name="sports"][type="checkbox"]'))
  .filter((checkbox) => checkbox.checked)
  .map((checkbox) => checkbox.value);

console.log(values);

console.log(form.elements['consent'].value);
console.log(form.elements['consent'].checked);
```



Form elements

Buttons

```
<form>
  <input type="button" value="Click">

  <button type="button">Click</button>
  <button type="submit">Submit</button>
  <button type="reset">Reset</button>
</form>
```



SIMPLE CHECKS / VALIDATION





Simple checks / validation

Checking for empty

```
const userName = document.getElementById('user-name');

if (userName.value === "") {
    alert('User name missing');
}

// Better yet

if (userName.value.trim().length === 0) {
    alert('User name missing');
}
```



Simple checks / validation

Checking for number

```
const age = document.getElementById('age');  
  
if (isNaN(age.value)) {  
    alert('Age missing');  
}
```




Simple checks / validation

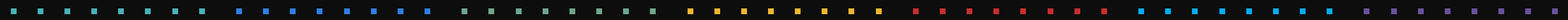
Checking for email (trivial)

```
const email = document.getElementById('email');

if (email.value.trim().length === 0) {
  alert('Email missing');
} else if (email.value.indexOf('@') < 0) {
  alert('Invalid email address');
}
```



USEFUL EVENTS





Useful Events

on change

```
const age = document.getElementById('age');

function checkAge(event) {
  const el = event.target;

  if (isNaN(el.value)) {
    alert('Age missing');
  }
}

age.addEventListener('change', checkAge);
```



Useful Events

on blur

```
const email = document.getElementById('email');

function checkEmail(event) {
  const el = event.target;

  if (el.value === "") {
    alert('Email missing');
  } else if (el.value.indexOf('@') < 0) {
    alert('Wrong email value');
  }
}

email.addEventListener('blur', checkEmail);
```



Useful Events

on focus

```
const els = document.querySelectorAll('input[type="text"]');

els.forEach((el) => { // or with a for ... of etc.
  el.addEventListener('focus', (event) => {
    event.target.classList.remove('error');
  });
});
```



on **submit**

Useful Events

```
<form name="theForm">
  <fieldset>
    <legend>Personal information:</legend>
    <label for="">First name:</label>
    <input type="text" name="firstname" value="Mickey">
    <label for="">Last name:</label>
    <input type="text" name="lastname" value="Mouse">
    <input type="submit" value="Submit">
  </fieldset>
</form>
```



on submit

Useful Events

```
document.theForm.addEventListener('submit', (event) => {
  const form = event.target;

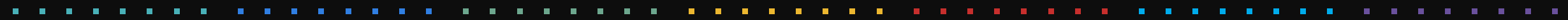
  const firstname = form.elements["firstname"];
  const lastname = form.elements["lastname"];

  if (firstname.value.trim().length === 0) {
    firstname.classList.add('error');
    event.preventDefault();
    return false;
  }

  if (lastname.value.trim().length === 0) {
    lastname.classList.add('error');
    event.preventDefault();
    return false;
  }
});
```



EVENT METHODS





Event methods

preventDefault()

Η μέθοδος **preventDefault()** σταματά την default λειτουργία ενός συμβάντος, για παράδειγμα την αλλαγή σελίδας στο **click** μιας ετικέτας **a** ή στο **submit** μιας φόρμας.

```
event.preventDefault();
```



Event methods

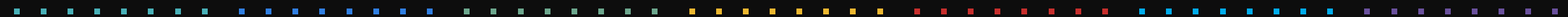
stopPropagation()

Η μέθοδος **stopPropagation()** σταματά την περαιτέρω διάδοση ενός συμβάντος, για παράδειγμα το **click** εντός στοιχείου στο γονέα του.

```
event.stopPropagation();
```



HOMework






Homework

Todos list

1. Ανοίξτε το app σε **αυτή τη διεύθυνση**.
2. Συμπληρώστε τον κώδικα, σύμφωνα με τις οδηγίες, ώστε η εφαρμογή να είναι λειτουργική.
3. **Προαιρετικά**, προσθέστε ένα κουμπί & τον απαραίτητο συνοδευτικό κώδικα, για τον καθαρισμό της λίστας.
Το κουμπί αυτό θα χρειαστεί να καλεί την μέθοδο **ul.textContent = ""**.



Χρήσιμα links

 Web forms — Working with user data - Learn web dev...
<https://developer.mozilla.org/en-US/docs/Learn/Forms>

 Forms, controls
<https://javascript.info/forms-controls>

 `Event.preventDefault()` - Web APIs | MDN
[https://developer.mozilla.org/en-US/docs/Web/API/Eve...](https://developer.mozilla.org/en-US/docs/Web/API/Event.preventDefault)


 `Event.stopPropagation()` - Web APIs | MDN
[https://developer.mozilla.org/en-US/docs/Web/API/Eve...](https://developer.mozilla.org/en-US/docs/Web/API/Event.stopPropagation)



Extra info

 JavaScript Form Validation

https://www.w3schools.com/js/js_validation.asp

 Client-side form validation - Learn web development ...

<https://developer.mozilla.org/en-US/docs/Learn/Forms/...>

 HTML5 Form Validation Examples < HTML | The Art of ...

<https://www.the-art-of-web.com/html/html5-form-valid...>



THANK YOU!