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CODDY - International Coding and Design School for Teens and Kids

# Frontend Developer: HTML/CSS/JavaScript Web Sites Course. Module 1

**Learning goal** is to go from the basics of HTML and CSS to your own modern website, gaining web programming skills and colouring your vision of the web developer profession

### **Course Syllabus:**

#### Day one Introduction to Webpage markup

- HTML document structure
- The first web page using HyperText markup language
- Introduction to the Sublime Text 3 Editor

**Learning outcome:** created the first web page, learned the basic ways to mark up text by using tags.

**Practical task:** create a web page using HTML.

#### Day two The div element and tag attributes

- Working with web inspector
- Creating a multi-page website
- Learning new tag elements and attributes

**Learning outcome:** learned how to add links and images to the site, added attributes to tags.

**Practical task:** create the first multi-page website.

#### Day three Cascading style sheets

- Introduction to cascading style sheets (CSS)
- Creating HTML element styles
- Using CSS selectors
- Installing and working with the Emmet plugin and adding Lorem text

**Learning outcome:** learned how to change the background color and text color of HTML elements, use two types of selectors, create Lorem text using Emmet plugin. **Practical task:** change the page appearance using CSS properties.

#### Day four Creating Jaguar website

- Creating a multi-page Jaguar website
- Creating a project file structure
- Working with external and internal indents of elements

**Learning outcome:** learned how to work with an external CSS file, got acquainted with external and internal indents of elements.

**Practical task:** create a multi-page Jaguar website.



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# Frontend Developer: HTML/CSS/JavaScript Web Sites Course. Module 2

**Learning goal** is to go from the basics of HTML and CSS to your own modern website, gaining web programming skills and colouring your vision of the web developer profession

## **Course Syllabus:**

#### Day one CSS Box Model

- Box model in CSS
- Creating custom-shaped blocks
- Working with the box-sizing property to change the way the width and height of an element are calculated

**Learning outcome:** learned how to create blocks of unusual shape, use the box-sizing property with the border-box value to calculate the width of an element, and set the dimensions of elements in different units of measurement. **Practical task:** create cards with text using different values of the box-sizing property.

#### Day two Advanced work with text in CSS

- Different types of fonts
- Choosing fonts for websites
- Creating new styles to customize the display of text at an advanced level

**Learning outcome:** created a page using different font types, improved the appearance and readability of the text using the learned properties. **Practical task:** create a page using basic font types.

#### Day three Positioning elements in CSS

- Working with the float property
- Types of positioning of elements on the page
- Position property

**Learning outcome:** learned how to work with the float and position properties, create text wrapping around images.

**Practical task:** create a web page and place elements on it using the float and position properties.

#### Day four Creating a blog page

- Creating a blog page
- Positioning properties of elements for placing menus and posts on a page
- Semantic tags

**Learning outcome:** learned how to work with semantic tags using positioning properties, placed the main components of the blog on the page.

**Practical task:** create a blog page using semantic tags.



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# Frontend Developer: HTML/CSS/JavaScript Web Sites Course. Module 3

**Learning goal** is to go from the basics of HTML and CSS to your own modern website, gaining web programming skills and colouring your vision of the web developer profession

## **Course Syllabus:**

#### Day one Pseudo-classes and working with images in CSS

- Using background images on a web page
- Hover, active, and visited pseudo-classes
- Changing the style of one element when activating a pseudo-element
- Creating background patterns

**Learning outcome:** learned how to work with background images, learned the properties for working with images.

**Practical task:** add external changes to elements when the mouse cursor hovers over them.

#### Day two FlexBox in CSS

- Working with CSS Flexible Box Layout
- Properties for aligning elements in the Flex container
- Flexbox froggy educational game

**Learning outcome:** learned how to work with Flex technology to create flexible layouts, completed Flexbox froggy game to consolidate knowledge gained. **Practical task:** complete Flexbox froggy game to consolidate the completed topic.

#### Day three Sneakers shop website development. Part 1

- Creating a site structure with models
- Connecting google font to the site
- Site header properties and its child elements
- Functions for creating a gradient page background

**Learning outcome: created** a site structure with sneakers models,

connected the font to the site.

**Practical task:** select and download images with models, add a shadow to the site header.

#### Day four Sneakers shop website development. Part 2

- Completing work on the site
- Creating a block with cards
- Changing the behavior of elements when hovering over them
- FlexBox technology for positioning cards

**Learning outcome:** created a website with sneakers models cards.

**Practical task:** add a gallery using FlexBox technology.



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# Frontend Developer: HTML/CSS/JavaScript Web Sites Course. Module 4

**Learning goal** is to go from the basics of HTML and CSS to your own modern website, gaining web programming skills and colouring your vision of the web developer profession

### **Course Syllabus:**

#### Day one Grid Layout in CSS

- Introduction to the Grid System
- Creating a page using Grid
- Properties for advanced work with Grid cells

**Learning outcome:** studied the two-dimensional layout system (CSS Grid Layout), learned how to position Grid cells on the page.

**Practical task:** complete the Grid Garden educational game to consolidate the completed topic.

#### Day two Pseudo-elements after and before

- Pseudo-elements before and after
- Combining an image with text
- Elements with first-letter and first-line pseudo-elements

**Learning outcome: learned** how to work with pseudo-elements before, after, first-letter and first-line, combine pseudo-elements with different properties to create beautiful blocks.

**Practical task:** create an element using pseudo element before and after.

#### Day three Animations and transformations in CSS

- CSS transformations
- Applying transformations to HTML elements
- Creating animated blocks in CSS
- Applying time functions to keyframes

**Learning outcome:** learned how to work with transformations in CSS, create endless animations in CSS.

**Practical task:** create a button and add hover transformations to it.

#### Day four Practice creating animations in CSS

- Practice creating animation and transformation
- Creating an animated orbital system with our Solar system planets

**Learning outcome:** created a page with a demonstration of the movement of planets in the Solar System and an animated background.

**Practical task:** create our animated Solar System.



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# Frontend Developer: HTML/CSS/JavaScript Web Sites Course. Module 5

**Learning goal** is to go from the basics of HTML and CSS to your own modern website, gaining web programming skills and colouring your vision of the web developer profession

### **Course Syllabus:**

#### Day one Creating an online store

- What is an "online store"?
- What are "global variables" in CSS?
- Creating a project structure
- Setting up a project

**Learning outcome:** we started creating an online store.

**Practical task:** choose the icons that will be used on the site, create variables.

#### Day two Creating an online store header

- CSS variables and how to use them
- Connecting fonts to an external style sheet using the url function
- Online store header, its styling
- Adding extra menu functionality using JavaScript programming language

**Learning outcome:** we set up global variables in the project, created a multifunctional header with a menu, and connected a Javascript file to add extra menu functionality. **Practical task:** add a change in the background of the site header when scrolling the page.

#### Day three Creating the first screen with the main product

- HTML structure of the presentation block
- Grid system for correct display of elements
- CSS property values using variables
- Stylization of elements

**Learning outcome:** created a presentation part of an online store. **Practical task:** create a presentation part of an online store.

#### Day four Creating a block with popular products

- HTML markup for a block with products
- Styling product cards
- Using grid for positioning cards
- Styling a block with the company story

**Learning outcome:** created a block with popular products and the company story. **Practical task:** add external and internal margins to elements in the block with the company story.



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# Frontend Developer: HTML/CSS/JavaScript Web Sites Course. Module 6

**Learning goal** is to go from the basics of HTML and CSS to your own modern website, gaining web programming skills and colouring your vision of the web developer profession

## **Course Syllabus:**

#### Day one Creating a slider with customer reviews

- Feedback block
- Ways to create scrollable containers in CSS
- Scroll-behavior and scroll-snap-type properties
- Anchor points in the slider

**Learning outcome:** created a slider with customer feedback using HTML and CSS. **Practical task:** add anchor points to the main sections of the site and create an automatic scroll to these blocks when you click on the button.

#### Day two Working with forms and video content

- HTML5 tags for embedding video content on your site
- Styling a section with a full-screen video clip
- Input tag and its attributes
- Tag for creating HTML forms
- Text input element styling

**Learning outcome:** created a section with a video and a block with a feedback form. **Practical task:** create a feedback form, set the styling of elements.

#### Day three Creating a separate page with the gallery

- Custom grid for gallery page
- Adding image blocks to the grid
- Pseudo elements and various block animations with images
- CSS filters to improve the visual design of the gallery

**Learning outcome:** created a separate page with a photo gallery.

**Practical task:** use different types of positioning to create a semi-transparent unusual background.

#### Day four Content adaptation for all types of devices

- Ways to adapt content to mobile devices
- Media queries for applying different properties to a single element on devices with different widths
- CSS rules for three types of devices

**Learning outcome:** we adapted the site for tablets and phones.

**Practical task:** using media queries, change the property values of HTML elements to adapt content for all types of devices.



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# Frontend Developer: HTML/CSS/JavaScript Web Sites Course. Module 7

**Learning goal** is to go from the basics of HTML and CSS to your own modern website, gaining web programming skills and colouring your vision of the web developer profession

## **Course Syllabus:**

#### Day one Site testing

- Testing the site for various indicators
- Using basic tools to evaluate the site's speed
- Optimize isite mages

**Learning outcome:** learned how to test websites for various indicators.

**Practical task:** make site testing using various tools.

#### Day two Introduction to the Tailwind CSS framework

- What are frameworks and how do they speed up the project development process
- Installing the Tailwind CSS framework and plugins
- Creating a card using Tailwind CSS

**Learning outcome:** created the first web page using the Tailwind CSS framework. **Practical task:** conduct an experiment on creating a card using simple CSS and using Tailwind CSS.

#### Day three Tailwind classes for creating an adaptive website

- Working with Tailwind classes for creating an adaptive website
- Learning the concept of "site adaptability"
- Working with Flex in Tailwind
- Working with Grid in Tailwind

**Learning outcome:** created an adaptive page for all types of devices.

**Practical task:** create buttons, add their click effects using the Tailwind classes.

#### Day four Grid system in Tailwind CSS

- Working with the Grid system in Tailwind CSS
- Properties of adaptive site page elements in the Grid
- Page with feedback

**Learning outcome:** created an adaptive page with a grid of blocks using the Tailwind Grid system.

Practical task: add grid elements with feedback to adaptive page using Tailwind CSS.



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# Frontend Developer: HTML/CSS/JavaScript Web Sites Course. Module 8

**Learning goal** is to go from the basics of HTML and CSS to your own modern website, gaining web programming skills and colouring your vision of the web developer profession

### **Course Syllabus:**

#### Day one Configuring the Manage project

- Setting up the project of the Manage site app
- Creating an adaptive site header
- Creating a Hamburger menu using JavaScript
- Creating a presentation section with the product

**Learning outcome:** created the first screen of the Manage site app. **Practical task:** add a background image to the first screen.

#### Day two Create a section describing the Manage app

- Section with app description and its benefits
- Adapt the created block to all types of devices
- Section with how the app works
- Apply Tailwind filters to the image

**Learning outcome:** created two sections of the Manage website. **Practical task:** create an additional section with the app creation story.

#### Day three Creating a FAQ section for the Manage website app

- Working on the FAQ section
- Adding animation and collapse functionality to the FAQ section
- Adding interactive blocks

**Learning outcome:** created the FAQ section for the Manage website app. **Practical task:** create a FAQ section and add interactive blocks.

#### Day four Creating Manage website app footer

- Creating an adaptive footer for site
- Code a block with social network icons and feedback form
- Finish working on the Manage website app project
- Publish the site to the internet

**Learning outcome:** created the footer of the Manage site app. **Practical task:** create adaptive footer, publish the site to the internet.



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# Frontend Developer: HTML/CSS/JavaScript Web Sites Course. Module 9

**Learning goal** is to go from the basics of HTML and CSS to your own modern website, gaining web programming skills and colouring your vision of the web developer profession

### **Course Syllabus:**

#### Day one Creating the first screen of your own website

- Selecting the final project theme
- Choosing a color palette for the site
- Creating the first screen of the site

**Learning outcome:** we selected a color palette for the site,

created the first screen of the site. **Practical task:** create the first screen.

#### Day two Creating a block with cards for your own project

- Creating a Feature Section
- Creating a block with cards
- Using video content and effects for the Feature section

**Learning outcome:** created a Feature section. **Practical task:** create a Feature section and slider.

### Day three Create a Footer and CTA for your own project

- Creating a site footer
- Creating a block with a CTA
- Final testing and preparation for project presentation

**Learning outcome:** created a site footer and a CTA block, passed the final test. **Practical task:** create a site footer and a CTA block, prepare a project presentation, publish the site on the Internet.

#### Day four Project presentation

- Project presentation rehearsal and presentation completion
- Project presentation in front of the audience

**Learning outcome:** presented final project.

**Practical task:** finalize the presentation, present the project.