JavaScript for Kids

Start Your Coding Adventure

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Introduction

Welcome to the book “JavaScript for Kids: Start your Coding Adventure”.
This book is your introduction to the world of JavaScript. It's your first step towards developing websites and mobile applications. With JavaScript, you can turn your ideas into reality. Learning should be fun, so you will feel like you are reading a story.
By the end of this book, you will have a good understanding of JavaScript. You will have taken the first steps in your modern web programming adventure.
Have fun programming!

Move forward

When you start a new topic, you should explore it broadly and focus on moving forward without getting lost in the details. I also recommend that you gather information on the same topic from different sources. Take breaks from time to time, look for short answers to questions, and use different sources to get different perspectives. Don´t worry if you still don't understand after many attempts, just keep going because you will come across it again later.

Java vs JavaScript

Java and JavaScript are different programming languages with different goals: Java is a general-purpose, object-oriented language used for developing applications for various platforms, while JavaScript is a scripting language used mainly for creating interactive content on websites.

What is JavaScript?

JavaScript is a programming language that is mainly used to create interactive content on websites. It allows developers to implement features on web pages, such as interactive forms and real-time updates, without having to reload the page.

JavaScript was primarily developed for execution by the web browser. You are familiar with web browsers because we use them all the time. The most popular browsers include Google Chrome, Microsoft Edge, Mozilla Firefox, Opera and Safari.

JavaScript is a programming language that mainly exists and is executed within the web browser. This was the case for many years before the release of Node.js. With Node.js, you can use JavaScript for server-side programming outside the web browser. Now we use JavaScript for all types of programming.

How do web browsers work?

When you visit a website in the browser, it goes to the specified URL, downloads the files and displays them on the screen. Websites are made up of three types of files that together make up the page you see online.
First, there is the HTML code, which is responsible for the content of the website, with no styles or programming, just the content.
Let's say we have a web page for a product on Amazon.com. The HTML consists of the product name, price, images, description and shipping details.
Everything is written in plain text, line by line. And the images are displayed one after the other, each on a separate line.
Imagine I give you some information and ask you to write it down in your notebook.
You write the product name on the first line, the price on the second line and so on.
Just the information without any design or programming.

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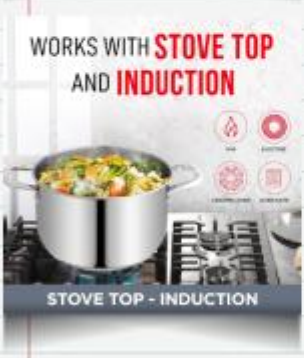
$31.60



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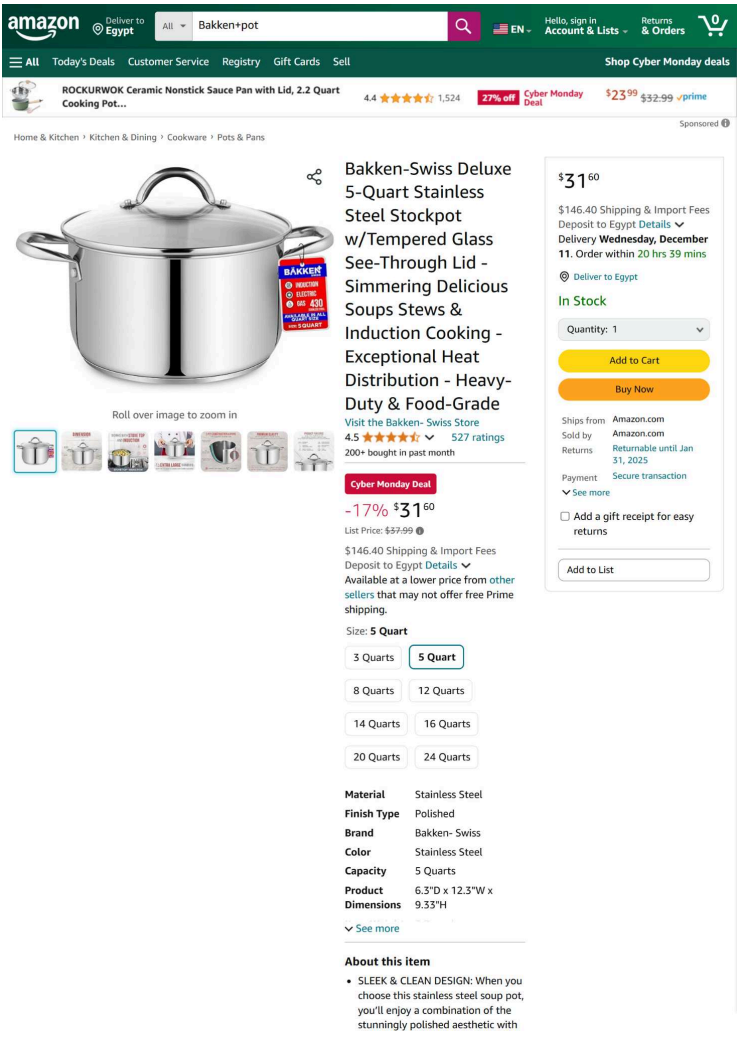
That's what HTML does: it displays the information in a semantic way. Accessibility devices read their

information from the HTML. They are mainly interested in the information. If you use a screen reader for a blind user, it will read the content of the page. All styles are ignored.
However, for sighted people who can see and interact with the website, the styles are important.
For example, if we apply styles to a product page on Amazon, we can make the title bigger and put the images on the left-hand side in a separate area. We can also hide all the images and only show the first image in a carousel or slider. We can change colors, fonts, spacing and borders, draw shapes and do all sorts of things with CSS.



So, now you know HTML and CSS, but there's a third component: JavaScript.

What is programming?

Programming is the process of creating a set of instructions that a computer can follow to perform specific tasks.

Create a small application

Let us create a small application so that you understand what programming means.
The application takes two numbers and should return the sum of the two.
I will create a variable called first `firstNumber` and a second one called `secondNumber`.
You can define the variables `x` and `y`, but professional programmers recommend giving the variables a meaningful name that clarifies the purpose of the creation. This is very useful when sharing your code with others so that they can easily understand what you are trying to do.

```
let firstNumber;
let secondNumber;
return firstNumber + secondNumber;
```

In JavaScript, we use the word `let` to declare a variable. You can then refer to the variable name to perform calculations.