

INC281
2020



INC281-Lec-Lab-03

JavaScript Programming

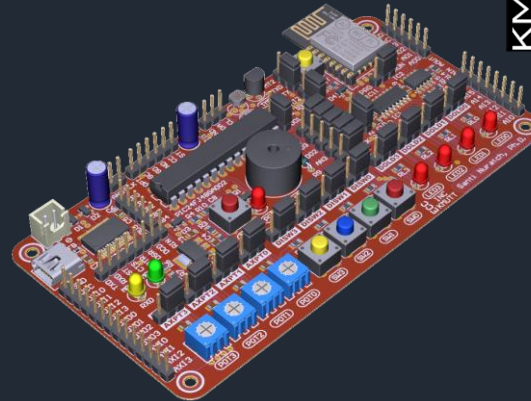
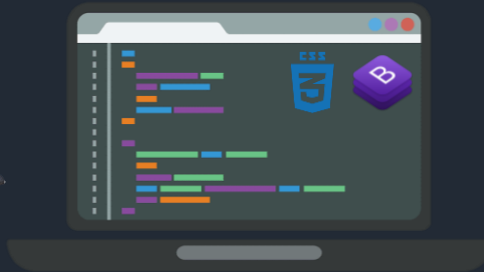
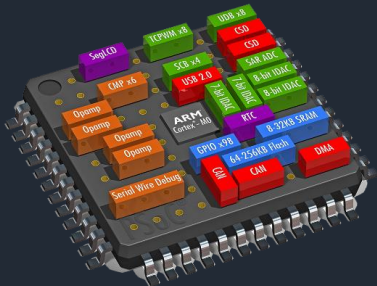


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We Make Computers do More



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JavaScript was initially created to “make web pages alive”

JavaScript can be written right in a web page’s HTML and run automatically

Today, JavaScript can execute not only in the browser, but also on the server, or actually on any device that has a special program called the JavaScript engine.

In-browser JavaScript can do everything related to webpage manipulation, interaction with the user, and the webserver. For instance, in-browser JavaScript is able to:

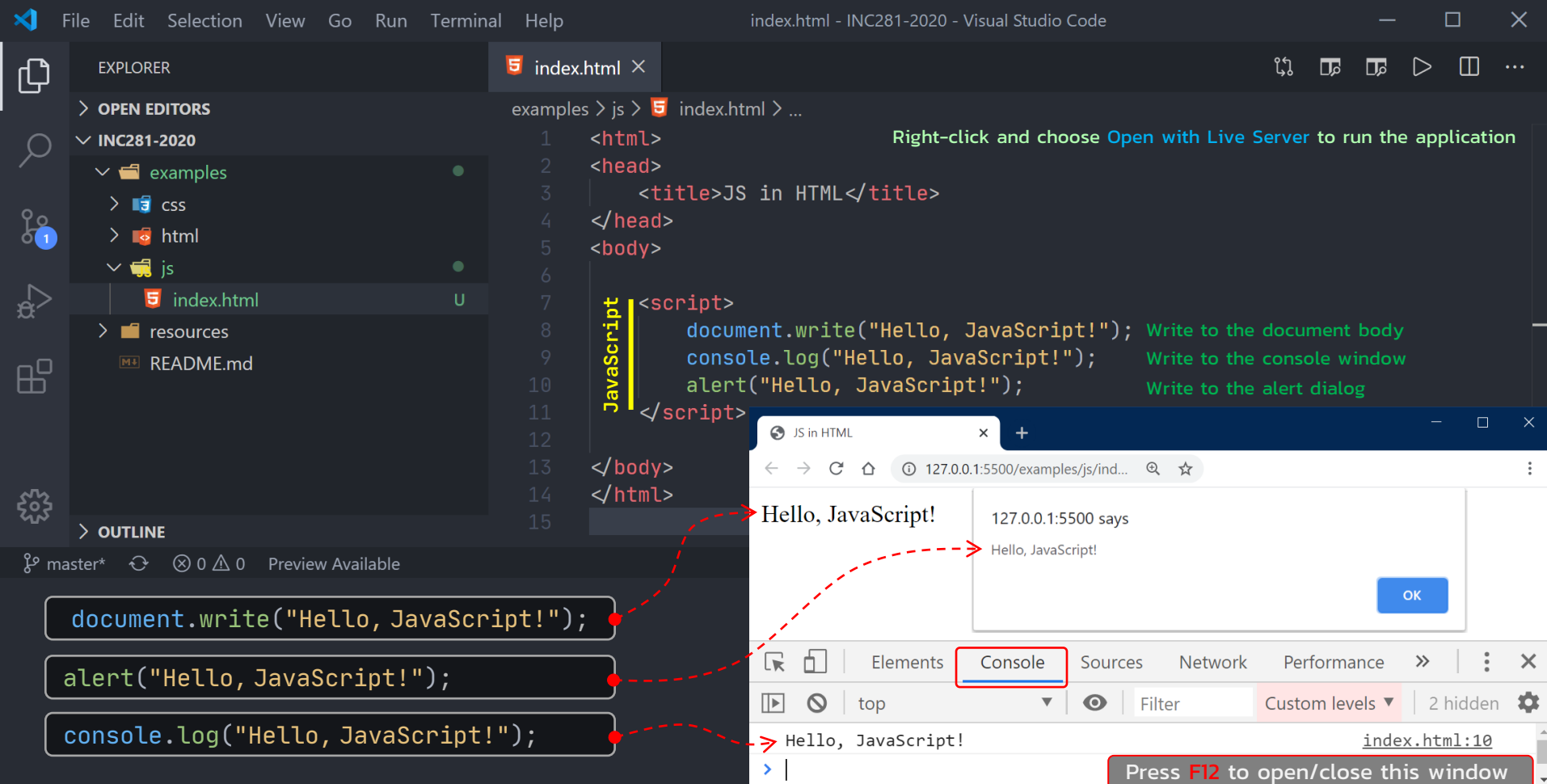
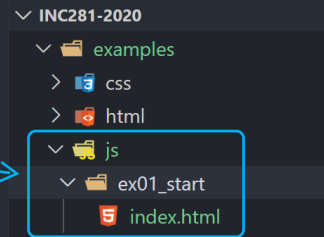
- Add new HTML to the page, change the existing content, modify styles.
- React to user actions, run on mouse clicks, pointer movements, key presses.
- Send requests over the network to remote servers, download and upload files (so-called AJAX and COMET technologies).
- Get and set cookies, ask questions to the visitor, show messages.
- Remember the data on the client-side (“local storage”).

JavaScript programs can be inserted into any part of an HTML document with the help of the `<script>` tag. (Check the next page for example).

<https://javascript.info/js>

Getting Started with JavaScript

- 1) Create a web page, `index.html` and save it in the `js/ex01_start` directory
- 2) Edit the `index.html` as shown below
- 3) Save and run `index.html`, then check the result in the web browser



The screenshot shows the Visual Studio Code editor with the `index.html` file open. The Explorer sidebar on the left shows the project structure: `INC281-2020` > `examples` > `html` > `js` > `ex01_start` > `index.html`. The Editor sidebar shows the code for `index.html`:

```
1 <html>
2 <head>
3   <title>JS in HTML</title>
4 </head>
5 <body>
6
7   <script>
8     document.write("Hello, JavaScript!");
9     console.log("Hello, JavaScript!");
10    alert("Hello, JavaScript!");
11  </script>
12
13 </body>
14 </html>
15
```

Annotations in the code include:

- Line 8: `document.write("Hello, JavaScript!");` - Write to the document body
- Line 9: `console.log("Hello, JavaScript!");` - Write to the console window
- Line 10: `alert("Hello, JavaScript!");` - Write to the alert dialog

The web browser (Chrome) shows the result of the application. The address bar is `127.0.0.1:5500/examples/js/ind...`. The page content is `Hello, JavaScript!`. The Console tab is open, showing the output: `Hello, JavaScript!`. The Elements tab is also open, showing the `body` element.

Annotations in the browser include:

- The `Console` tab is highlighted.
- The output `Hello, JavaScript!` is shown.
- The `index.html:10` line is highlighted.
- A red box around the `Console` tab has an annotation: `Press F12 to open/close this window`.

JavaScript Tutorial

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JavaScript is the programming language of HTML and the Web.

JavaScript is easy to learn.

This tutorial will teach you JavaScript from basic to advanced.

Examples in Each Chapter

With our "Try it Yourself" editor, you can edit the source code and view the result.

Example

My First JavaScript

Click me to display Date and Time

Try it Yourself »

We recommend reading this tutorial, in the sequence listed in the left menu.

The more you read, the more you acquire

Self Learning is the best weapon

The Modern JavaScript Tutorial

https://javascript.info/

javascript.info

PART 1

The JavaScript language

Here we learn JavaScript, starting from scratch and go on to advanced concepts like OOP.

We concentrate on the language itself here, with the minimum of environment-specific notes.

An introduction

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An Introduction to JavaScript

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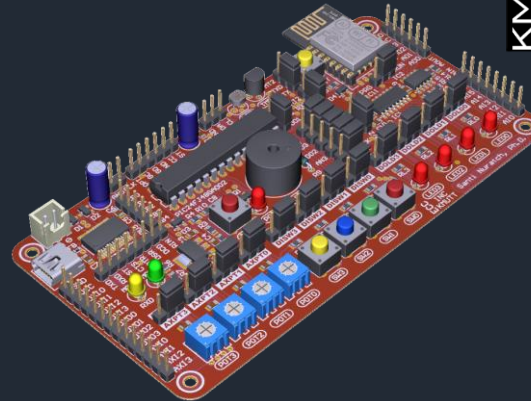
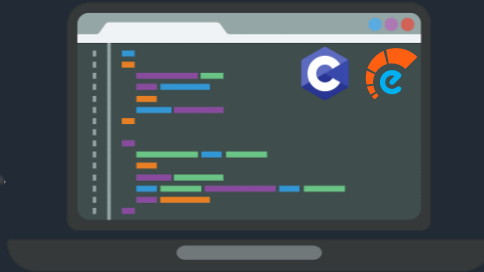
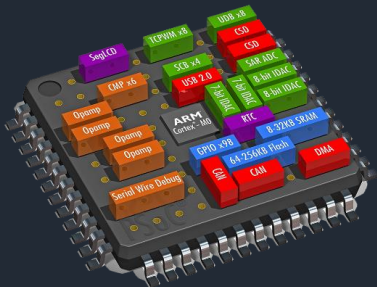
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THANK YOU!



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