Real Time College

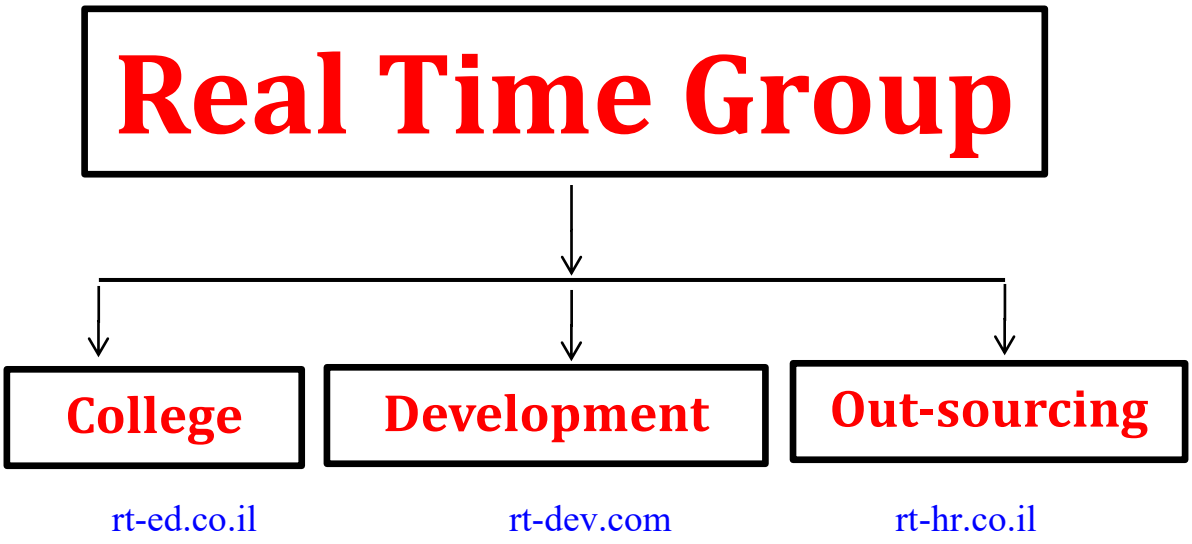
Course: Java Script

Duration: 60 Hours
Hands-On-Training: 50%

Real Time Group is a multi-disciplinary dynamic and innovative Real-Time O.S. and Embedded Software Solutions Center, established in 2007.

Providing Bare-Metal and Embedded Linux solutions, professional services and consulting, end-to-end flexible system infrastructure, outsourcing, integration and training services for Hardware, Software and RT-OS \ Embedded Systems.

The company is divided into the following three Divisions:



Training Division:

Professional Training Services for Hardware, Software, RT-OS and Embedded systems industries.

We provide the knowledge and experience needed to enable professional engineers to Develop, Integrate and QA Hardware, Software and Networking Projects.

In order to insure experience, all courses are practical – hands-on-training.
The latest Development, QA and Automation equipment which are adopted by the industry are used.

All students are supplied with Development-Boards for home-work and course projects.

Course Overview:

Expertise in web standards and website technology can help beginners and developers reliable, efficient and maintainable websites. Learn HTML, responsive design, how to manage hosted websites, and more.

If you're starting from scratch, web development can be tricky - we'll give you enough details to make you feel comfortable and learn the topics well.

We will help you get the necessary skills, put together projects for your resume and get a decent job in the company you are interested in.

In the first block of the lectures you will already write your first website on it - using HTML, CSS and Bootstrap

The fifth part **JavaScript** - is the programming language of the web. The programs in this language are called scripts. They can be written right in the HTML or in outsource file and execute automatically as the page loads.

Mostly JS code is responsible for the interaction of the website to the visitor, making the website dynamic. Meaning the website reacting and changing when user does something - we can look at it as a conversation.

Furthermore JS is capable of more actions like adding and removing content, downloading new content after the page loaded with AJAX.

Modern JS frameworks and libraries extends JS capabilities once more to reach the hard drive files, execute and run other programs and much more. **It is not theoretical course! - From the first steps, students work on real cloud Linux servers, gets experience with real client-server applications, using a set of modern open source tools**

Who should attend:

- Beginners and developers who would like to know how create provide interaction web applications

Prerequisite:

- Basic knowledge of programming and design

JavaScript

1. Introduction to JavaScript
    a. What is JavaScript
    b. First JavaScript program
    c. Javascript code execution
    d. Including an external JavaScript file
    e. Browser console, console.log and document.write

2. Javascript Basics
    a. Variables and constants
    b. Data types
    c. Operations with variables
    d. Data transformation
    e. Arrays
    f. Conditional constructs
    g. Cycles

3. Functional programming
    a. Functions
    b. Variable scope
    c. Passing parameters by value and by reference
    d. Arrow functions

4. Objects
    a. Nested objects and arrays in objects
    b. Checking for existence and iterating over methods and properties
    c. Objects in functions
    d. Object constructors
    e. Inheritance
    f. The this keyword

5. Built-in Objects
    a. Date object. Working with dates
    b. Math object. Mathematical operations
    c. Array object. Array operations
    d. Number object

6. Strings
    a. Strings and String Object
    b. RegExp object. Regular expressions
    c. Regular Expressions in String Methods
    d. Regular Expression Syntax

7. Working with the browser and BOM
    a. Browser Object Model and window object
    b. Window management
    c. Browser history. History object
    d. Location object
    e. Navigator object
    f. Timers

8. Working with the DOM
    a. Introduction to the DOM
    b. The document. Find items
    c. Properties of the document object
    d. Node. DOM navigation
    e. Creating, adding and deleting elements of a web page
    f. Element object. Element management
    g. Changing the style of elements

9. Events
    a. Introduction to event handling
    b. Event handlers
    c. Event object
    d. Propagation of events
    e. Mouse events
    f. Keyboard events

10. Working with forms
    a. Forms and their elements
    b. Buttons
    c. Text fields
    d. Checkboxes and radio buttons
    e. Select list

11. JSON Data Storage
    a. Introduction to JSON
    b. Web Storage

12. Server conversation
    a. XMLHttpRequest object
    b. Fetch
    c. Promise
    d. Async/Await