Real Time College

Course: Full Stack Web Development Bootcamp
Duration: 610 Hours

A little about us

Real Time Group was established in 2007 and provides business and technological solutions in the fields of software, hardware, communications, and the development of support for multidisciplinary projects for a variety of customers in Israel and abroad. The group consists of the following three divisions: development lab, training, and placement / outsourcing center.

Real Time College

The training division leads in training for professional tracks in the field of high-tech, information technology and full career path studies for students without experience.
- Outsourcing and placing graduates in advanced high-tech companies.
- Dedicated courses in small groups in the field of software, communication, and computers.
- A wide range of computer and information technology courses in an individual and / or group format.

Real Time Development

The Development Division is responsible for the design, development, testing and consulting of software solutions in the below areas:
- Web Development (Client and Server side), IoT.
- Networking Applications
- RT/ Embedded Applications (BSP / Low Level Programming / Board Bring Up).
- Linux User / Kernel / Embedded Applications
- Manual QA, Automation Testing and Manufacturing Testing

Full stack graduates will proceed to internship in this division, work on real world projects and complete their practical studies gaining actual programming experience.
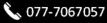
Real Time H.R

The Placement Division is responsible for outsourcing and placing graduates in the one of the following options:

- In the RTG's development division.
- Outsourced in one of RTG's business partners.
- Placement of graduates in high-tech companies.

Course Overview

The Full Stack course provides all the knowledge, experience and tools required for a graduate to join development teams and it is divided into 2 areas:

Server Side

The server side responds and launches data (queries) received from the client, taking into consideration that at any moment there can be thousands of requests.

Client Side

This is the user interface for side user. Over the years the number of devices and methods we consume the information has increased dramatically, and there are countless technologies. Moreover, the use of information is more complex today and requires filling out forms, processing in real time and presenting interactive maps.

What is the key role of the Full Stack Developer?

In recent years, there has been a turning point in the field of development, if in the past the developer was expected to write a server side and know a client side (Web) or write a client side and know a server side. Today, high-tech companies wish to reduce the waiting time, prevent misunderstandings between departments and increase the versatility and flexibility of a product, therefore, look for programmers with knowledge and experience in a wide range of high-level programming languages and technologies, to implement a client-side as well as a server-side. In other words, master the full stack of knowledge skills.

Full Stack studies

This is the complete learning program in the field of Full Stack Web Development,

It includes all the courses that are designed to provide you with the required knowledge and professional experience in a variety of technologies, including programming languages and platforms such as: CSS3, Javascript, MySQL, NodeJS, AngularJS and more.

The syllabus was built in coordination with our business partners - high-tech companies interested in recruiting our graduates.
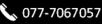
Program information

We at Real Time Group have developed a unique program for training and job placing in the field of Full Stack Web Development.

The goal of this track is to train you as a Full Stack Web Development expert, to provide you with all the knowledge and experience required to become a professional in the field.

Towards the side of the training, the placement division will build a certificate with the candidate and begin the placement / outsourcing process for high-tech companies relevant to his field.

Finally, the goal of the course is to integrate you in the industry as a developer in RTG development division, or in one of our business partnerships.

Course Description

The program is conducted in the form of practical courses that include theoretical lectures, extensive practical exercises, practical fieldwork and a practical internship in the company's development division.

- Duration of the program:
    - 610 frontal and practical hours in the training department
    - 100 hours - practical final project.
- Studies take place:
    - Morning path - 5 sessions a week between the hours of 9:00-18:00 for about 5 months.
    - Evening path - 2-3 meetings a week between 18:00-22:00, for about 10-12 months.
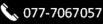
Target Audience

- Everyone interested in specializing in the field of the Internet and development in the world of web.
- No web or a basic background is required.
- BA graduates, or Practical Engineers who are interested in professional retraining.

Prerequisites

- Intermediate level English.
- Have a background and / or experience in developing programming languages - an advantage
- Professional knowledge interview + exam.

Practical projects

During the track the student will perform a practical project for 150 hours accompanied by an engineer from the company's development division, the project development will fully overlap with the module studied to create a portfolio and practical experience which will prove the candidate's knowledge and experience in finding a job as a Full Stack developer.

Job Plaecment

Towards the end of the studies, the HR division will start placement process in high-tech companies.
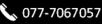
The placement process will take care of:

- Build an optimal resume for each student.
- Reflection of the graduates' courses and projects of the RTG's business partnerships.
- One on One preparation for the professional interview, for each job interview one on one.

Course requirements and obtaining a certificate

- The program include a test for each module studied (additional date for failures / absentees).
- Exercises are required on a weekly basis.
- Attendance of at least 85% and passing exams is required as a necessary condition for obtaining a professional certificate.
- Students who successfully graduated will receive a certificate on behalf of Real Time College.
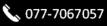
Course classes

All courses can be learned in class, or via online. Students will practice using their own computers.

Feel free to click on the required course name and get the syllabus for each course.

Course Name	Hours
Web Foundations \ Web Services	10
HTML5	10
CSS3	20
Bootstrap	10
JavaScript	60
Mid Course Project	(40)
MongoDB	20
SQL	40
NodeJS	60
Type Script	10
Angular / **React**	60
Python	90
Java	90
Linux	50
Security	5
Development to Production	5
Git	20
Final project - performed in-house work with a facilitator - development of an integrated system (Front end + Back end) based on real customer settings.	(100)

Project Stage	Course
A web app project development with the purpose of experiencing development from the beginning of characterization and planning, to the stage where we have a web application on a dedicated, secure, encrypted server, ready to receive and serve its target audience. **Stage #1**- characterization of the actions, design, target audience, information flow and we will even create an API that will allow others to use our server and data. **Stage #2**- start designing our work environment, software, libraries and possibly additional installations to carry out the project.	Project Description
Stage #3- is the preparation of the skeleton of the project. Using HTML code we will create an infrastructure for the application, open relevant pages and divide the project into correct folders. At this point it will be possible to see the organization of the project, since some of the folders with content will have the option to open the pages in the browser and present the actual project.	**HTML5**
Stage #4- design. At this stage we will use the pages from the previous stage and dress the design according to the characterization we created. We can now complete the visibility of our pages and include colors for the background and text, arrange the content in the right position on the page, use animations, and prepare sketches of simulated data on the pages for initial sample of the project's visibility. At this point the developer sometimes sends the sketch to the client and receives comments and approvals before continue down the road.	**CSS3 & Bootstrap**
Stage #5- programming. At this point we will add an interaction with the user, responses to events, clicks and typing. At this point the user can already start to feel the site is fully active, and can respond to the actions he asks of him. We are not working with a server yet, so everything will not really work.	**JavaScript**
Stage #6- database. At this stage we will prepare tables and relationships according to the characterization that will be ready to receive and provide information for our application.	**MongoDB / Mysql**
Stage #7- developing a server. Create a server capable of working with the information from the repositories. The server will receive a flow of information and knowledge to process and store it in a database as well as answer user queries. At this point we will install the libraries we have established in the project planning and incorporate them in the code.	**NodeJS**
Stage #8- client side development. Use the code we have written so far and convert it to a more advanced code.	**ReactJS / Angular**

At this point the project comes to life and manages all the actions we wanted in the characterization, information entered by the user, processing it and its storage in the database. This stage is the last stage in the development of the application's capabilities and its use, now it is ready for use.	
Stage #9- security. Once the app is ready to use there are a few steps we would like to take, in order to protect our code and content from hacking and exposing sensitive information unintentionally. We will use the libraries we have installed and add additional code to save our project so that it does not do anything else that will aid hackers will try to add or use.	**Security**
Stage #10 lock the project into a server. It will now be possible to access it at the desired address, use it from anywhere in the world.	**Development to Production**
Final stage is to upload our version to the server and save it there. We now have a first and ready version on the server. Now that we want to edit it we can do this using snippets of code and save the changes in additional versions, so we will always have access to previous versions if we need to, or if we share the code with the team.	**Git (Version Control)**

Remarks:

- The course opening is conditional to a minimum number of registrants.
- Registration fees are not refundable except in case of non-opening of a course by the college.
- Registration fee is included in the tuition.
- Course content and schedule might change due to updates.
    - The College undertakes to notify students of any change.
    - The College reserves the right to change the contents of the track at its discretion