

## Программа обучения WEB-программированию

### Учебный план программы «WEB-программирования»

### Objectives

Full Stack Web Developer – это универсальный программист, который может сам с нуля разработать функциональный продукт. Такой специалист разбирается как в Back-end составляющей (программно-аппаратная часть сервиса), так и во Front-end (интерфейс пользователя).

### Overview & Purpose

Fullstack web разработчики востребованы во всех сферах бизнеса. В крупных компаниях они часто занимаются небольшими продуктами, например для внутренней оптимизации. Но могут и руководить командой программистов, так как понимают особенности разных типов разработки. Много fullstack-разработчиков работают на фрилансе, потому что могут решить главную задачу малого бизнеса – быстро разработать сайт с минимальными затратами.

## Activity

- Theory lectures
- Practice
- Final Project

## Syllabus

Topic
Overview
HTML
CSS
Version Control system - GitHub
Programming with Javascript
ReactJS Development
NodeJS Development
MongoDB
Final Project

## Detailed Description

# HTML

HTML is the basic and must have skill-set for every web developer. It is used and extended by various other technologies. To be completely able to understand how things work in web development, you should develop an understanding of HTML. In this section, you will learn

- Introduction to HTML
- Browsers and HTML
- Editor's Offline and Online
- Tags, Attribute and Elements
- Doctype Element
- Comments
- Headings, Paragraphs, and Formatting Text
- Lists and Links
- Images and Tables

# CSS

CSS is another important language amongst the web development trifecta. It will help you style, plan a layout and control the behavior and look and feel of the web apps that you build. In this module, you will learn:



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- Introduction CSS
- Applying CSS to HTML
- Selectors, Properties and Values
- CSS Colors and Backgrounds
- CSS Box Model
- CSS Margins, Padding, and Borders
- CSS Text and Font Properties
- CSS General Topics

## JavaScript

The third one amongst the must learn trifecta, Js is present in about 90% of the internet. To make sense of what you're doing and to design and build new web apps, this language is used predominantly, and it is indispensable. In this section you will learn the following topics:

- Introduction to JavaScript
- Applying JavaScript (internal and external)
- Understanding JS Syntax
- Introduction to Document and Window Object
- Variables and Operators
- Data Types and Num Type Conversion
- Math and String Manipulation





- Objects and Arrays
- Date and Time
- Conditional Statements
- Switch Case
- Looping in JS
- Functions

## ReactJS

Reactjs is the best and most popular framework for front-end development. An integral part of the MERN stack, its community is great, and the demand for reactjs specialists is only increasing day-by-day. React is great for Rapid app development, SPAs and for creating awesome responsive and interactive web apps. In this topic you will learn:

- Introduction
- Templating using JSX
- Components, State and Props
- Lifecycle of Components
- Rendering List and Portals
- Error Handling
- Routers
- Redux
- Unit Testing
- Webpack



# NodeJS

Nodejs is a great skill to have. It is JS based, and it completes the javascript full stack experience. It is a backend skill, which is in demand and pays well. In this module, you will learn the following:

- Node js Overview
- Node js - Basics and Setup
- Node js Console
- Node js Command Utilities
- Node js Modules
- Node js Concepts
- Node js Events
- Node js with Express js
- Node js Database Access

# MongoDB

This is a data driven schema-less NoSql database. It is a great tool to know. The syntax is very similar to javascript making it much easier to learn. You can use this for projects of any size and it is also very easy to scale up or down depending on your requirements. In this module, you will learn:

- SQL and NoSql Concepts
- Create and Manage MongoDB
- Migration of Data into MongoDB
- MongoDB with PHP



- MongoDB with NodeJS
- Services Offered by MongoDB

## Final Project

