**Node.js**

Lesson 1

**Introduction**

* Introduction to Node.js and NPM
* Advantages and disadvantages
* Installing node.js
* Node modules
* Working methods with modules
* Examples.
* Practice.

Lesson 2

**Core modules**

* The standard library and functions
* Processing options on startup
* Working with variables
* The npm package manager
* Useful library

Lesson 3

**Events**

* Basic methods of working with events
* Adding and removing event listeners
* Passing data with events
* Using events for error handling

Lesson 4

**Working with network requests**

* The documentation for the http
* Processing incoming Web requests
* Outgoing requests
* Examples

Lesson 5

**Framework Express**

* Introduction to the framework express.js
* Create a skeleton of the website using express.js
* Web services
* Working with errors

Lesson 6

**Working with MsSQL**

* Work with MsSQL using tedious
* Creating and using modules
* Creating TODO-application (input and display items)
* Examples

Lesson 7

**Cookies and Sessions**

* Continued development of TODO-application
* Editing and deleting items
* Work with cookies and sessions

Lesson 8

**Authentication and authorization**

* Basic authorization

Lesson 9

**REST API**

* Creating the cross-source API using REST API + CORS
* Creating a REST API using restify
* Using the REST API

Lesson 10

**WebSockets**

* Working with WebSockets through socket.io
* Socket.io option
* Creating a simple chat using socket.io
* Professional hosting node.js,

Practice (one week)