

Curricula cursului Introducere în programare (Web developer)

	Topic
Lab 1	[Generalities]* Software Engineering <ul style="list-style-type: none"> • Introduction to Hardware, Software, Networking, Internet and Cloud • Operating Systems, A crash course on Linux, an operating system you need to know • A crash course on bash scripting, Let's build useful console applications using Linux tools and scripts • Prepare initial test
Lab 2	Environment setup and Web (HTML/CSS) Intro <ul style="list-style-type: none"> • Sublime text • Understanding Web (introduction to HTML/CSS/JS) • Structure of a web site, understand elements
Lab 3	More CSS and Design concepts <ul style="list-style-type: none"> • CSS layout • Design web elements using css selector
Lab 4	JavaScript Introduction <ul style="list-style-type: none"> • Programming Fundamentals (variables, functions) • Basic concepts, understanding syntax
Lab 5	JavaScript basics <ul style="list-style-type: none"> • Arrays • Functions • Objects
Lab 6	JavaScript algorithms <ul style="list-style-type: none"> • Implementing algorithms in Javascript • Practice arrays, objects, json, iterations
Lab 7	DHTML (Dynamic HTML with JavaScript) <ul style="list-style-type: none"> • DOM manipulation • Browser Events • Browser console • Investigate and change rendered elements • Debugging and troubleshooting a web page
Lab 8	jQuery <ul style="list-style-type: none"> • Simplified selectors • Make a simple game using jquery
Lab 9	JSON and BOOTSTRAP <ul style="list-style-type: none"> • JSON and asynch client-server communication (AJAX) • Responsive web design
Lab 10	Front-end practice – client side programming (browser) <ul style="list-style-type: none"> • Create a basic END to END js application without persistence • Version Control (Git)

Lab 11	PHP Introduction(server side programming) <ul style="list-style-type: none"> • Introduction to PHP
Lab 12	PHP Basics <ul style="list-style-type: none"> • Functions • Reading request parameters • JSON & Array objects • Apache httpd web server
Lab 13	PHP OOP Introduction <ul style="list-style-type: none"> • Classes, objects, parameters and methods
Lab 14	PHP OOP Basics <ul style="list-style-type: none"> • Inheritance, Overriding, Encapsulation, Static keyword
Lab 15	Databases <ul style="list-style-type: none"> • Basics of relational databases (database objects, structured query language, relations)
Lab 16	Create two projects with php and database <ul style="list-style-type: none"> • Interact with MySQL from PHP
Lab 17	Make a complete web application with Front-end, Back-end and database <ul style="list-style-type: none"> • Add the backend to the frontend application from Lab 10
Lab 18	Recapitulation <ul style="list-style-type: none"> • HTML, CSS, JS, JQuery, Bootstrap • PHP, Databases • How to deploy our site in production
Lab 19	Presentation of JavaScript Frameworks <ul style="list-style-type: none"> • Java quiz • Intro to some JavaScript frameworks • MVC & MVVM
Lab 20	React Js <ul style="list-style-type: none"> • Getting Started with React • Create the first reactjs project • ES6
Lab 21	React Js Basics <ul style="list-style-type: none"> • JSX, Containers, Props, States, Events, Routes
Lab 22	[Project Management]* <ul style="list-style-type: none"> • Agile principles and practices, Scrum, Interviewing for a job • Final quiz • Project presentation