

Introduction to web development and programming

Welcome to a journey! The purpose of this course is to give you inspiration and knowledge of web development, one of the skills in most demand on the Swedish labor market. We want to empower you to realize ideas, demystify the technologies, make you see what is possible to do on your own and also how simple and fun it can be to program. This course will not be sufficient for employment but enough to be a stepping stone for you into a career in web development. We will also provide you with free online resources to continue learning on your own, after the course has ended. The course is free of charge and enabled through the Swedish Red cross.

Prerequisites

The course will be given in English so sufficient communication skills in English are necessary. In order to keep up with the pace of the course it is also necessary to have basic computer skills, and know how to navigate the web to find information. No previous experience with programming or web development is necessary. The school will provide you with computers to work with during the course.

Course content

In the beginning of the course we will give you an overview of basic concepts on how the internet works, and specifically how web browsers and servers communicate. We will go through the technologies that make a website, such as *html*, *css* and *javascript*. We will combine theory with practice and you will learn how to work with these technologies. During the course you will work with 4 major projects, that will give you an understanding of what web development is and help you proceed learning more on your own. At the end of the course we will hopefully make a visit to a company working with web development to see how professionals work.

PROJECT 1: Build a Personal website

You will develop a website that will display images, descriptions and links. In this project we will focus on learning *html* and *css*, and handling the graphical layout of a web page.

PROJECT 2: Add interactivity to website

You will add interactivity to the website you made in the first project so that certain effects such as sliding-effects or popup-effects happen when a user interacts with the content. In this project we will focus on learning *jQuery*, a JavaScript library, that makes creating these effects easy.

PROJECT 3: Build a game

You will develop a simple snake game that runs in the browser. In this project we will focus on learning JavaScript and some more advanced programming techniques and concepts.

PROJECT 4: Build a To-Do application

In this project we will build a simple “To-Do list” application that connects to a database and stores “To-do items”. This means that you will be able to start the application at another time and see the same “To-Do” items that you stored from your previous session. In this project we will use *Meteor*, a javascript framework.

Group size and teaching methodology

Maximum 12 students. The course extends over 10 weeks and takes place twice a week, of which one is a 3 hour lecture by a student from Chalmers University, and the second occasion is for practical exercise and for you to work with the projects under supervision. Apart from classes and exercise sessions we expect the students to work with the projects approximately 8 hours a week outside of the classroom.