

Set up a local development environment

Requirements

As with any other development process, you will need a programming Integrated Development Environment (IDE) in order to write, view, modify and test your application and code. You will need the following requirements to run a local development environment to complete the formative assignments and the mid-term coursework and it should not take you long to set them up:

- a code editor (Visual Studio Code)
- a JavaScript runtime environment
- package manager (Node and NPM)
- a browser (your choice, Chrome is recommended)
- a database (MySQL).

You will learn how to install MySQL in later topics of this module. For now, just install Visual Studio Code, Node and NPM.

Using your computer's terminal

You will need to use your computer's terminal to run your programs and other commands. On a Mac or Linux, use the Terminal application. On Windows, use the Command Prompt application.



Figure 1 Mac Terminal

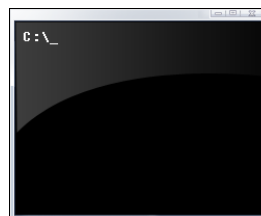


Figure 2 Windows Command Prompt

Visual Studio Code

Visual Studio Code is an extremely popular code editor optimised for building and debugging modern web and cloud applications. You will use it to write and edit JavaScript code.

Go to [Download Visual Studio Code](#) and install your operating system compatible version of the code editor.

Once installed, make sure you can open Visual Studio Code on your machine.

Node and NPM

You will write JavaScript code that runs both on the client and server side to create your web applications. Node is simply a JavaScript runtime environment that allows you to run JavaScript code outside of a browser.

Go to [Download Node.js](#) and install your operating system compatible version of the runtime environment.

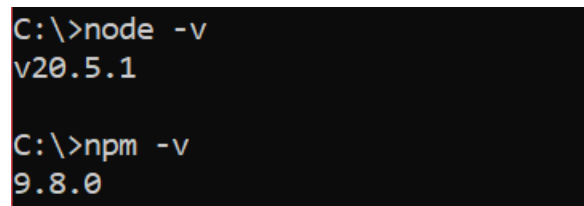
NPM comes with the Node installation, so you do not need to install it separately. NPM stands for 'Node Package Manager' and you will use it to install useful external packages to help build your web applications.

Once the installation has completed, verify that you have both Node and NPM installed on your machine. You can do this by typing the following two commands in your computer's Terminal window:

`node -v` (type this command and press enter)

`npm -v` (type this command and press enter)

If the installation was successful, the terminal will print the installed versions of both Node and NPM as shown below:

A screenshot of a terminal window with a black background and white text. The first command entered is 'C:\>node -v', which outputs 'v20.5.1'. The second command entered is 'C:\>npm -v', which outputs '9.8.0'.

```
C:\>node -v
v20.5.1

C:\>npm -v
9.8.0
```

Note that your versions might be different from the ones shown in this image.

Browser

Finally, you will need a browser to visualise your web application. Any recently updated browsers will serve the purpose here. We recommend using Chrome.

Summary

This is all you need for now. As a reminder, you should have installed Visual Studio Code, Node, NPM and a browser of your choice. In the next section, we will provide you with the starter files for this module.

If these links are broken, please let us know via the [Student Portal](#).