2. Introducing Cloud-Based Development with Cloud9

What is an IDE?

An Integrated Development Environment (IDE) is a software typology. IDEs are software applications that offer developers a collection of tools to foster a complete development environment, including a code editor and file management tools.

An IDE usually consists of a source code editor, build automation and debugging tools. Many modern IDEs support type-ahead and code completion. The individual tools in an integrated development environment may vary. Some IDEs include a version control system, or tools to aid creation of Graphical User Interfaces (GUI). Want to know more about IDEs? Read futher about IDEs at Wikipedia.org, where the main article is located at **https://en.wikipedia.org/wiki/Integrated_development_environment** **(https://en.wikipedia.org/wiki/Integrated_development_environment)** .
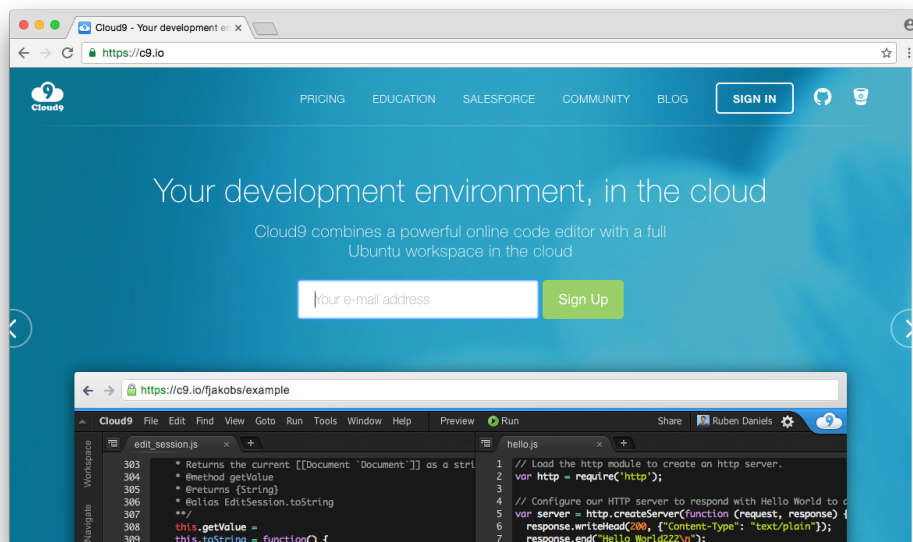
The Nitrous.io cloud-based IDE offers us file management, code editing, complete virtual server hosting, and template-based projects. We will take advantage of all of these features during this week's exercises.

How Do Cloud-Based Hosting Providers Work?

By 2009, the availability of high-speed networks, inexpensive server and storage hardware, plus the adoption of server virtualization led to an explosion in the number of websites hosted by cloud-based hosts.

Cloud-based hosting is a type of Internet-based website and application hosting that provides shared computer processing resources on demand. Cloud-based hosting can be provisioned and released with minimal management effort, since there is no hardware and limited software for the site developers to set up. Cloud-based hosting relies on sharing of server resources to achieve economies of scale, similar to a utility like your local electric company. Cloud-based hosting providers include Amazon Web Services, Microsoft Azure and the Google Cloud platform.

All About the Cloud9 Cloud-Based IDE

The Cloud9 service, found at **https://c9.io/** **(https://c9.io/)** , offers a no-cost cloud-based hosting account that supports the LAMP software stack and the WordPress CMS platform – all with a no-cost account level.

TheCloud9 IDE includes templated server installations for many commonly used CMS platforms and server-side tools, including WordPress.

The following pages in this module will walk you through the steps needed to create a freeCloud9 hosting account, make a WordPress-powered virtual server, and install a custom Bootstrap-based theme for the WordPress site. All of these steps are the start for each of you to create a fully dynamic, WordPress-powered final project for our course.