

SYNOPSIS OF PROJECT

ON

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About Company

About O7 Services

O7 Services is an ISO 9001:2015, MSME PB10D0011152, and Govt. Approved (CAL-C) Organization that bargains in Web Development, Mobile Application Development, Custom Software Development, UI/UX Designing, Facilitating Services, Digital Marketing, Enlistment of Domain Names with contemporary extensions, AMC and MMC Services, Mass SMS and voice calls. The organization incorporates the most progressive IT solutions, supporting a full business cycle: preliminary counseling, framework development, distribution, quality confirmation, and 24×7 help. With a rich encounter of 7+ fruitful years, O7 Services forms durable associations with their clients to guarantee reasonable costs, swift delivery, and quantifiable business results. Their Administrative Center is in Jalandhar and the Branch Office is in Hoshiarpur.

Some of the avant-garde products developed by O7 Services are- Vehicle Tracking System, Invoice Software, School Management System, Hospital Management system, Parents-Teacher Communication App, Fee Management system, Task Management System, Online Food Ordering App, Security App, Admission system, Inventory Software, Car Servicing App etcetera.

In addition to this, O7 Services provides 6 Weeks/6-month of Industrial Training, Project Based Training, Corporate Training, and Job Oriented Courses Training preparing the pupils on all significant IT trends; Full-stack Development (MEAN/ MERN), Flutter, Kotlin, Android, Swift IOS, Firebase, Python, Angular, ReactJs, VueJs, NodeJs, ASP.NET, .NET Core, PHP, Laravel, CodeIgniter, Software Testing, Cloud Computing, Blockchain, DataScience, Artificial Intelligence, Machine Learning, IoT, UI/ UX Designing, Digital Marketing, WordPress, Linux, CCNA, CCNP, CCNA Security, Network Security, MCSE, MCITP, Java, Spring, Hibernate, C/C++, Photoshop, Adobe Illustrator, CorelDraw etcetera.

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INTRODUCTION TO FULL STACK DEVELOPMENT



The term “full-stack” refers to all of the technologies and skills that are needed to finish a project. Each of these is called a “stack.” To put it another way, stacks can be made for mobile, the Web, or software. Plenty of the time, a software engineer works on either the front end or back end.

In other words, the full stack is a set of frameworks, libraries, and tools for both client and server software that help make an application or website work well. That is to say; this includes programming for the browser with JavaScript, jQuery, Angular, Vue, and other languages, and programming for the server with ASP, Python, Node, PHP, and other languages.

What is HTML?

HTML is an acronym which stands for Hyper Text Markup Language which is used for creating web pages and web applications. Let's see what is meant by Hypertext Markup Language, and Web page.



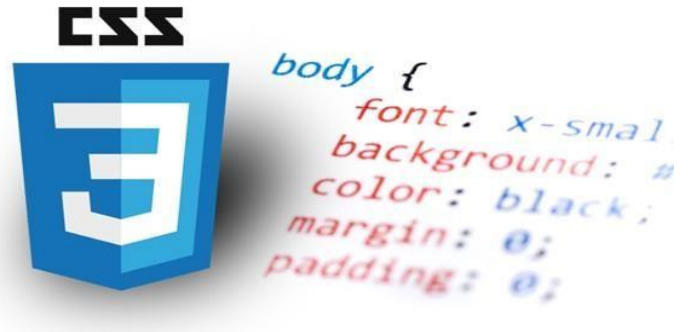
Hyper Text: HyperText simply means "Text within Text." A text has a link within it, is a hypertext. Whenever you click on a link which brings you to a new webpage, you have clicked on a hypertext. HyperText is a way to link two or more web pages (HTML documents) with each other.

Markup language: A markup language is a computer language that is used to apply layout and formatting conventions to a text document. Markup language makes text more interactive and dynamic. It can turn text into images, tables, links, etc.

Web Page: A web page is a document which is commonly written in HTML and translated by a web browser. A web page can be identified by entering an URL. A Web page can be of the static or dynamic type. With the help of HTML only, we can create static web pages.

What is CSS?

CSS stands for Cascading Style Sheets. It is a style sheet language which is used to describe the look and formatting of a document written in markup language.



It provides an additional feature to HTML. It is generally used with HTML to change the style of web pages and user interfaces. It can also be used with any kind of XML documents including plain XML, SVG and XUL.

CSS is used along with HTML and JavaScript in most websites to create user interfaces for web applications and user interfaces for many mobile applications.

Before CSS, tags like font, color, background style, element alignments, border and size had to be repeated on every web page. This was a very long process. For example: If you are developing a large website where fonts and color information are added on every single page, it will become a long and expensive process. CSS was created to solve this problem. It was a W3C recommendation.

What is JavaScript?

JavaScript is a scripting or programming language that allows you to implement complex features on web pages — every time a web page does more than just sit there and display static information for you to look at — displaying timely content updates, interactive maps, animated 2D/3D graphics, scrolling video jukeboxes, etc. — you can bet that JavaScript is probably involved.

It is the third layer of the layer cake of standard web technologies, two of which ([HTML](#) and [CSS](#)) we have covered in much more detail in other parts of the Learning Area.

JavaScript is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented capabilities.

JavaScript was first known as LiveScript, but Netscape changed its name to JavaScript, possibly because of the excitement being generated by Java.

JavaScript made its first appearance in Netscape 2.0 in 1995 with the name LiveScript. The general-purpose core of the language has been embedded in Netscape, Internet Explorer, and other web browsers.



What is Bootstrap?

Bootstrap is a free, open source front-end development framework for the creation of websites and web apps. Designed to enable responsive development of mobile-first websites, Bootstrap provides a collection of syntax for template designs.

As a framework, Bootstrap includes the basics for responsive web development, so developers only need to insert the code into a pre-defined grid system. The Bootstrap framework is built on Hypertext Markup Language (HTML), cascading style sheets (CSS) and JavaScript.

Web developers using Bootstrap can build websites much faster without spending time worrying about basic commands and functions. Bootstrap makes responsive web design a reality. It makes it possible for a web page or app to detect the visitor's screen size and orientation and automatically adapt the display accordingly. Bootstrap addresses the requirements of those technologies in design and includes UI components, layouts, JavaScript tools and the implementation framework. The software is available precompiled or as source code.



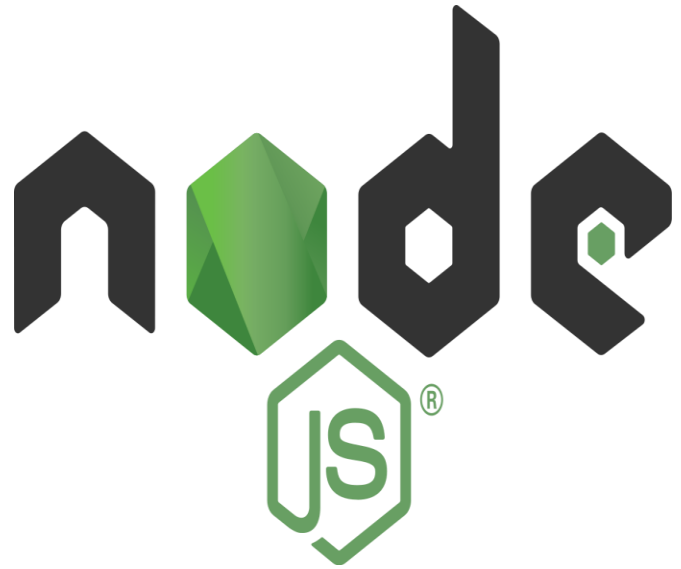
What is Nodejs?

Node.js is a server-side platform built on Google Chrome's JavaScript Engine (V8 Engine). Node.js was developed by Ryan Dahl in 2009 and its latest version is v0.10.36.

Node.js is an open source, cross-platform runtime environment for developing server-side and networking applications. Node.js applications are written in JavaScript, and can be run within the Node.js runtime on OS X, Microsoft Windows, and Linux.

Node.js also provides a rich library of various JavaScript modules which simplifies the development of web applications using Node.js to a great extent.

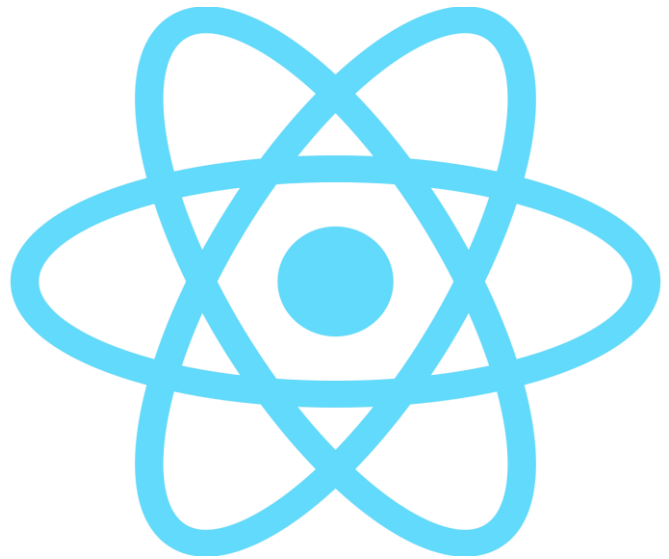
Browsers like Chrome and Firefox have runtime environments. That is why they can run JavaScript code. Before Node.js was created, JavaScript could only run in a browser. And it was used to build only front-end applications. Node.js provides a runtime environment outside of the browser. It's also built on the Chrome V8 JavaScript engine. This makes it possible to build back-end applications using the same JavaScript programming language you may be familiar with.



What is ReactJS?

ReactJS tutorial provides basic and advanced concepts of ReactJS. Currently, ReactJS is one of the most popular JavaScript front-end libraries which has a strong foundation and a large community.

ReactJS is a declarative, efficient, and flexible JavaScript library for building reusable UI components. It is an open-source, component-based front end library which is responsible only for the view layer of the application. It was initially developed and maintained by Facebook and later used in its products like WhatsApp & Instagram.



The main objective of ReactJS is to develop User Interfaces (UI) that improves the speed of the apps. It uses virtual DOM (JavaScript object), which improves the performance of the app. The JavaScript virtual DOM is faster than the regular DOM.

We can use ReactJS on the client and server-side as well as with other frameworks. It uses component and data patterns that improve readability and helps to maintain larger apps.

JSX is a special syntax that looks like HTML, which converts React's API calls and finally renders HTML.

The React component **NumberList** is using pure JavaScript code (the map function). Also, you can see that JSX is a simple well-known HTML tag with no fancy attributes. The render function is simply rendering the NumberList component in the root element in the HTML file.

This doesn't seem very easy, but React handles it very well behind the scenes. It has multiple benefits like avoiding layout trashing, which is when the browser has to re-calculate the position of everything when the DOM element changes.

What is PHP?

[PHP](#) is a [programming language](#) used to script websites that are dynamic and interactive. You'll find it in various types of web applications, from e-commerce websites to CRM systems like HubSpot and Salesforce.

It is a widely-used general-purpose language that can be embedded into HTML. This functionality with HTML means that the PHP language has remained popular with developers as it helps to simplify HTML code.

The term PHP stands for PHP Hypertext Preprocessor. Originally, the “PHP” within the acronym stood for Personal Home Page. But, as the language evolved and caught on, it ended up being used for more than just personal home pages. So, that acronym, in turn, became just the “P” within PHP.

PHP stands for ‘PHP: Hypertext Preprocessor’, with the original PHP within this standing for ‘Personal Home Page’. The acronym has changed as the language developed since its launch in 1994 to more accurately reflect its nature.

Since its release, there have been 8 versions of PHP, as of 2022, with version 8.1 currently a popular choice among those using the language on their websites.

A PHP interpreter makes a website dynamic and customizable, allowing a site to respond to user input or information in some expected way. The interpreter is a key link between the user and web server, databases, and the relevant files or responses sent back to that user.



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