DECLARATION BY THE STUDENTS

We the undersigned solemnly declare that the project report titled web development is based on our own work carried out under the guidance of Mr. Nitesh nema.

We assert that the statements made and conclusions drawn are an outcome of our work. We further certify that

i. The work contained in the report is original and has been done by me under the general supervision of our supervisor.

ii. The work has not been submitted to any other Institute for any other degree/diploma/certificate in this university or the any other University of India or abroad.

iii. We have followed the guidelines provided by the university in writing the report.

iv. Whenever we have used materials (data, theoretical analysis, and text) from other sources, we have given due credit to them by citing them in the text of the report and giving their details in the references

Jyoti Rajput

BD0830

CERTIFICATE FROM THE SUPERVISORS

This is to certify that the work incorporated in the project report entitled web development is a

record of work carried out by Jyoti Rajput Roll No.:303102220301, under our guidance and supervision for the award of Degree of Bachelor ofTechnology in the faculty of Department of Computer Science & Engineering of ChhattisgarhSwami Vivekanand Technical University, Bhilai, Chhattisgarh, India.

To the best of my/our knowledge and belief the project report

i) Embodies the work of the candidates themselves,

ii) Has duly been completed.

iii) Fulfills the requirement B. TECH degree from the University and

Signature of the Supervisor

Forwarded to Chhattisgarh Swami Vivekanand Technical University, Bhilai

(Signature of the Head of the Department)

(Seal of the Department of Computer Science Engineering)

CERTIFICATE BY THE EXAMINERS

This is to certify that the project report entitled wep depelopment which is submitted by

1. Jyoti Rajput, Roll no.: 303102220301

Has been examined by the undersigned as a part of the examination for the award of the degree of Bachelor of Technology in Computer Science and Engineering from Chhattisgarh Swami Vivekanand Technical University, Bhilai.

(Signature of the External Examiner) (Signature of the Internal Examiner)

(Name of the External Examiner) (Name of the Internal Examiner)

Date: Date:

Designation: Designation:

Institute: Institute:

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1.INTRODUCTION

- **Web development is the process of building websites and applications for the internet, or for a private etwork known as an intranet.**
- **Web Development , also known as web programmin,is the creation of dynamic web applications.**

2. Layers Of Web Development

Web development can be broken down into three layers:

1. **Front End**
2. **Back End**
3. **Database**

Technology

3. Front END

These are the two divisions of the project to help the creator develop the project smoothly.This division help working different people work upon the things they are master in. Thusthe whole load of the project is balanced.Front-end covers the part of the project which is visible to the user, i.e., it deals with theclient side. Anything happening on the user side of the connection can be received ormanipulated by the user. It concerns mostly with the user interface and user experience ofthe website. How the website is presented to the user is the primary goal of the front-end.Simplicity, accessibility, proper user experience, clarity of the actions and feedback aresome of the basic features which play a vital role in the best possible front-end.

HTML is a markup language which is used for defining the structure of the website.These are the basic things to create front-end of any website. While there are manythings to learn afterwards and to use them for a much highly sophisticated front-end of awebsite.

What is Front-End Web Development?

Front-end web development is everything involved in programming the userinterface of a webapplication. Typically it refers to the Hypertext Markup Language(HTML), Cascading Style Sheets (CSS) and JavaScript portion of web site production asopposed to the database or server-side programming. It encompasses everything frombuilding a simple page of HTML text to creating complex, responsive HTML5 websitesdesigned to be accessed via various different browsers, devicesand screen sizes.

Front end include every thing that the user will directle see and experience when they visit a sit

Front end is also know as client side scripting .

Front end languages are:

1. HTML

2.CSS

3.JAVASCRIPT

1. HTML

Hypertext Markup Language Hypertext Markup Language (HTML) is a computer language thatmakes up most web pages and online applications. A hypertext is a text that is used to referenceother pieces of text, while a markup language is a series of markings that tells web servers the styleand structure of a document. HTML is not considered a programming language as it can't createdynamic functionality. Instead, with HTML, web users can create and structure sections,paragraphs, and links using elements, tags, and attributes. Here are some of the most common usesfor HTML: Web development. Developers use HTML code to design how a browser displays webpage lements, such as text, hyperlinks, and media files. Internet navigation. Users can easilynavigate and insert links between related pages and websites as HTML is heavily used to embedhyperlinks. Web documentation. HTML makes itpossible to organize and format documents,similarly to Microsoft Word.

HTML is the language in which most websites are written. HTML isused to create pages and make them functional.The code used to make them visually appealing is known as CSSand we shall focus on this in a later tutorial. For now, we will focuson teaching you how to build rather than design.

HTML was first created by Tim Berners-Lee, Robert Cailliau, andothers starting in 1989. It stands for Hyper Text Markup Language.Hypertext means that the document contains links that allow thereader to jump to other places in the document or to anotherdocument altogether. The latest version is known as HTML5.A Markup Language is a way that computers speak to each otherto control how text is processed and presented. To do this HTML uses two things: tags and attributes.

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale
    <meta name="description" content="" />
    <link rel="stylesheet" type="text/css" href="styles.css" />
    <title>Real Devs Take Shortcuts</title>
  </head>
  <body>
    <header></header>
    <main></main>
    <footer></footer>
    <script src="scripts.js"></script>
  </body>
</html>
```

2.CSS

Cascading Style Sheets (CSS) is a stylesheet language used todescribe the presentation of a document written in HTML or XML(including XML dialects such as SVG, MathML or XHTML). CSSdescribes how elements should be rendered on screen, on paper,in speech, or on other media.CSS is among the core languages of the open web and isstandardized across Web browsers according to W3Cspecifications. Previously, the development of various parts ofCSS specification was done synchronously, which allowed theversioning of the latest recommendations. You might have heardabout CSS1, CSS2.1, CSS3. However, CSS4hasneverbecome anofficial version.From CSS3, the scope of the specification increased significantlyand the progress on different CSS modules started to differ somuch, that it became more effective to develop and releaserecommendations separately per module. Instead of versioningthe CSS specification, W3C now periodically takes a snapshot ofthe latest stable state of the CSS specification.

CSS is the language we use to style a Web page.

What is CSS?

CSS stands for Cascading Style Sheets

CSS describes how HTML elements are to be displayed on

screen, paper, or in other medi

CSS saves a lot of work. It can control the layout of multiple web pages all at once

External stylesheets are stored in CSS files

Why Use CSS?

CSS is used to define styles for your web pages, including the design, layoutand variations in display for different devices and screen sizes.

CSS Example

```
body {

background-color: lightblue;

}

h1 {

color: white;

text-align: center;

}

p {

font-fami
```

ly:

verdana;

font-size:

20px;

}

CSS Solved a Big Problem

HTML was NEVER intended to contain tags for formatting

a web page! HTML was created to describe the content of a

web page, like:

<h1>This is a heading</h1>

** This is a paragraph. **

When tags like <font>, and color attributes were added to the HTML 3.2 specification, it started a nightmare for web developers. The development of large websites, where fonts and color information were added to every single page, became a long and expensive process.

To solve this problem, the World Wide Web Consortium

(W3C) created CSS. CSS removed the style formatting

from the HTML page

3.JAVASCRIPT

What is JavaScript?

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.

The ECMA-262 Specification defined a standard version of the core JavaScript language.

● JavaScript is a lightweight, interpreted programming language.

● Designed for creating network-centric applications.

● Complementary to and integrated with Java.

● Complementary to and integrated with HTML.

● Open and cross-platform

Client-Side JavaScript

Client-side JavaScript is the most common form of the language. The scriptshould be included in or referenced by an HTML document for the code to beinterpreted by the browser.

It means that a web page need not be a static HTML, but can includeprograms that interact with the user, control the browser, and dynamically

create HTML content.

The JavaScript client-side mechanism provides many advantages overtraditional CGI server-side scripts. For example, you might use JavaScript tocheck if the user has entered a valid e-mail address in a form field.

The JavaScript code is executed when the user submits the form, and only if all the entries arevalid, they would be submitted to the Web Server.

JavaScript can be used to trap user-initiated events such as button clicks, link navigation, andother actions that the user initiates explicitly or implicitly.

Advantages of JavaScript

The merits of using JavaScript are −

● Less server interaction − You can validate user input before sending the page off to the server. This saves server traffic, which means less load on your server.

● Immediate feedback to the visitors − They don't have to wait for a page reload to see if they have forgotten to enter something.

● Increased interactivity − You can create interfaces that react when the user hovers over them with a mouse or activates them via the keyboard.

● Richer interfaces − You can use JavaScript to include such items as drag-and-drop components and sliders to give a Rich Interface to your site visitors.

Limitations of JavaScript

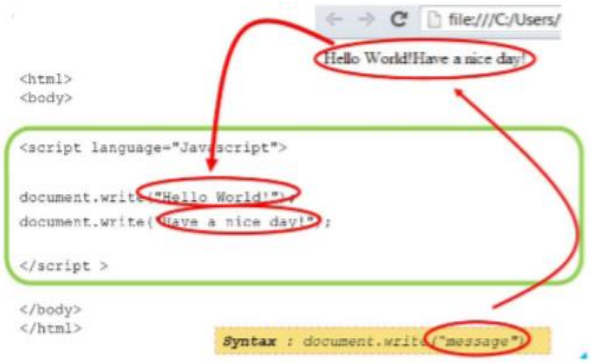
We cannot treat JavaScript as a full-fledged programming language. It lacks the following important features −

● Client-side JavaScript does not allow the reading or writing of files. This has been kept for security reason.

● JavaScript cannot be used for networking applications because there is no such support available.

● JavaScript doesn't have any multi-threading or multiprocessor capabilities.Once again, JavaScript is a lightweight, interpreted programming language that allows you tobuild interactivity into otherwise static HTML pages.

- **it makes the website interactive by manipulating html and css feature**
- **It is a case-sensitive language.**
- **javaScript is supportable in several operating systems including, Windows, macOS, et**



2. Back End

1.Backend is the behind-the-scenes where information is stored

- **2.It is a server side of any website.**
- **3.It's responsible for storing and organizing data**

Back-end is the part of the website which deals with the core functioning of the website andis hidden to the user for user's safety. User shouldn't know what is happening on thewebsite, this is the concern of the back-end developers. Having back-end makes the websitemore dynamic.

When users interact with the website which involves back-end, it makes the creators easy toinvolve with users for the main purpose of the website. Back-end involves maintaining thedatabase of various users, helping them to get things done through the various tools andservices developed by the programmers of the back-end. Common objectives of theback-end are to involve users with the website, maintaining the proper database for varioususers.

BACKEND DEVELOPMENT

The backend of a web application is an enabler for a frontend experience. An application'sfrontend may be the most beautifully crafted web page, but if the application itself doesn'twork, the application will be a failure. The backend of an application is responsible forthings like calculations, business logic, database interactions, and performance. Most of thecode that is required to make an application work will be done on the backend. Backendcode is run on the server, as opposed to the client. This means that backend developers notonly need to understand programming languages and databases, but they must have anunderstanding of server architecture as well. If an application is slow, crashes often, orconstantly throws errors at users, it's likely because of backend problems.

Backend development is not all ones and zeros though. Much like frontend development,backend development has a human aspect to it as well. Since most of the code

for anapplication is written on the backend, it should be easy to understand and work with. Mostbackend languages – like Ruby and Python – have standardized styles and idioms that makereading and writing code more efficient and enjoyable.

What Do Back-End Developers Do?

What back-end developers do can vary greatly depending on the size and the scope of theapplication they are working on. I've held many jobs where I was a back-end developer,working on the business logic in an application, and feeding and retrieving data from the

front-end.

In the web development world, most back-end developers concern themselves with buildingthe actual logic behind the application they are working on.Often, front-end developers will build out a user interface and back-end developerswillwrite code that makes it all work.

For example, a front-end developer might create a screen in an application with a button topress to get the customer's data.

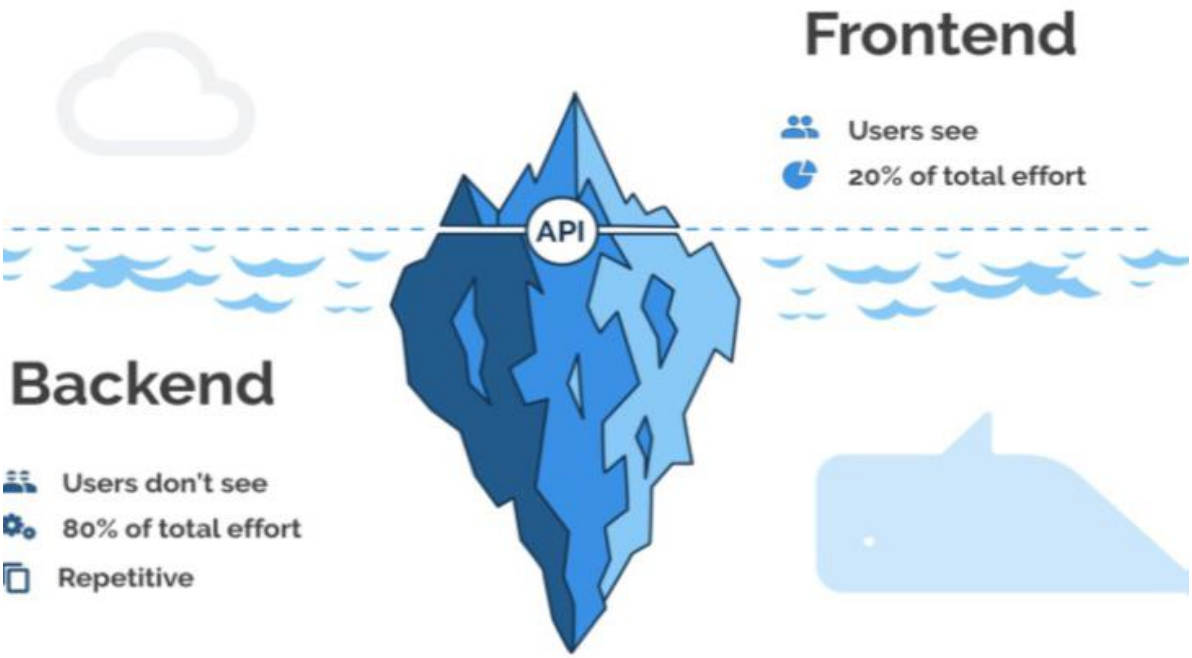
A back-end developer might write the code that makes that button work by figuring outwhat data to fetch from the database for the appropriate customer and delivering it back tothe front-end, where it is eventually displayed.

A back-end developer might also be heavily involved in the architecture of a system,deciding how to organize the logic of the system so that it can be maintained and runproperly.

He might be involved in building frameworks or the architecture of a system to make iteasier to program

algorithms and solving problems than front-end developers do.I've always liked back-end development work because it feels like more of a challenge.

That's not to say that front-end developers don't ever solve difficult problems, but oftenfront-end development work is more about creating user interfaces and hooking them uprather than implementing the actual business logic that makes the app work.



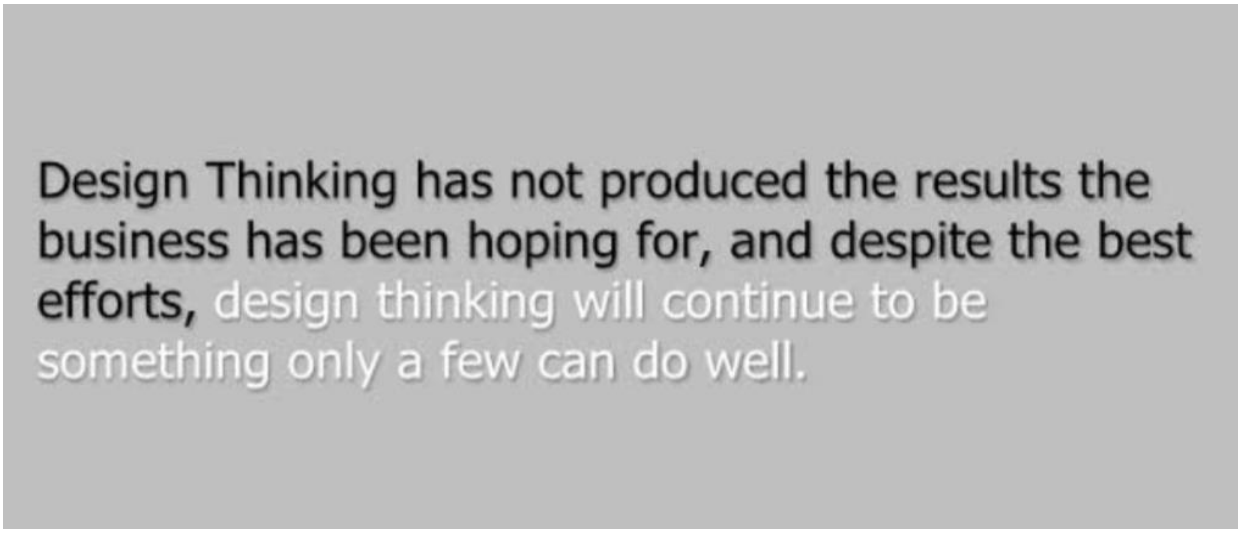
5.Database technology

- **Websites also rely on database technology. The database contains all the files and content that are necessary for a website to function, storing it in such a way that makes it easy to retrieve, organize, edit, and save. The database runs on a server, and most websites typically use some form of relational database management system (RDBMS).**

6.Future Scope

Web developers with 1-4 years of experience can make around Rs 3,04,000 per annum. With 5-9 years of experience, you can earn around Rs 5,89,000 per annum. If you have an experience of over 10 years in the field, you can earn around Rs 1,000,000 per annum or even more depending on different factors

7.Conclusion



Thank you