

A REPORT
Of
Six Weeks Winter Training
At
INTERNSHALA

Submitted to Dibrugarh University in partial fulfilment of the requirement for
the award of the degree of

B. TECH

In

COMPUTER SCIENCE & ENGINEERING

SUBMITTED BY

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PREFACE

Training is an integral part of B.Tech and each and every student has to undergo the training for 30 days in a company.

This record is concerned about my training during the pandemic after 4th semester. I have taken my internship in Internshala , a Technology Company in Gurugram . It was an online training and has been an excellent and rewarding experience. I can say that I've learnt from my work during the training. Needless to say, the technical aspects of the work I've done are not flawless and could be improved provided enough time. As someone with no prior experience in JavaScript and PHP whatsoever, I believe my time spent in training and discovering new languages was well worth it and contributed to finding an acceptable solution to an important aspect of web design and development.

ACKNOWLEDGEMENT

It gives me immense pleasure and satisfaction in presenting this report on Industrial Training. I express my deep sense of gratitude to several people without whose help and encouragement, it would have been impossible for me to carry out my desired work. I would like to express my special thanks of gratitude to my trainer as well as Internshala Trainings for giving me the golden opportunity to do this industrial training, which helped me learn a lot of new things. Secondly, I would like to thank my fellow mates who helped me in doing my work with utmost productivity and skill by maintaining a very competitive environment in completing the assignments and helping me wherever I needed them. I would also like to acknowledge Internshala Trainings for providing me the opportunity to work as a trainee and for their cooperation and contributions that played an important role in the successful accomplishment of the internship.

Last but not the least I am thankful to my family members and friends for their silent cooperation and passion and to all others known and unknown persons who helped me in this duration.

Dhrubangshu Prabal Goswami



(Name of student)

CANDIDATE'S DECLARATION

I, Dhrubangshu Prabal Goswami , Roll No. CSE-13/18 B.Tech (7th Semester) of Dibrugarh University Institute of Engineering & Technology, Dibrugarh hereby declare that the Training Report entitled “ Six Weeks Winter Training at Internshala” is an original work and data provided in the study is authentic to the best of my knowledge. This report has not been submitted to any other Institute for the award of any other degree.

Dhrubangshu Prabal Goswami



(Name of the student)

Place: Tezpur

Date: 21/02/2022

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ABOUT THE COMPANY



Internshala is an internship and online training platform, based in Gurgaon, India. Founded by Sarvesh Agrawal, an IIT Madras alumnus, in 2010, the website helps students find internships with organizations in India. The platform, which was founded in 2010, started out as a WordPress blog that aggregated internships across India and articles on education, technology and the skill gap. They coat themselves as “We are a technology company on a mission to equip students with relevant skills & practical exposure through internships and online training. Imagine a world full of freedom and possibilities. A world where you can discover your passion and turn it into your career. A world where your practical skills matter more than your university degree. A world where you do not have to wait till 21 to taste your first work experience. A world where you graduate fully assured, fully confident, and fully prepared to stake a claim on your place in the world”. Internshala launched its online training in 2014. In August 2016, Telangana's not-for-profit organization, Telangana Academy for Skill and Knowledge (TASK) partnered with Internshala to help students with internship resources and career services. In September 2016, Team Indus, Google XPRIZE shortlisted entity, partnered with Internshala for college outreach for its initiative, Lab2Moon. In 2011, the website became a part of NASSCOM 10K Start-ups. In 2015, Internshala was a finalist in People Matters Tech HR 2015 Spotlight Awards under 'Futurism in Recruitment' category.

CHAPTER 1: INTRODUCTION

1.1 WEB DEVELOPMENT:

Web development is the work involved in developing a Web site for the Internet (World Wide Web) or an intranet (a private network). Web development can range from developing a simple single static page of plain text to complex Web based Internet applications (Web apps), electronic businesses, and social network services. A more comprehensive list of tasks to which Web development commonly refers, may include Web engineering, Web design, Web content development, client liaison, client-side/server-side scripting, Web server and network security configuration, and e-commerce development. Among Web professionals, "Web development" usually refers to the main non-design aspects of building Web sites: writing markup and coding. Web development may use content management systems (CMS) to make content changes easier and available with basic technical skills.

For larger organizations and businesses, Web development teams can consist of hundreds of people (Web developers) and follow standard methods like Agile methodologies while developing Web sites. Smaller organizations may only require a single permanent or contracting developer, or secondary assignment to related job positions such as a graphic designer or information systems technician. Web development may be a collaborative effort between departments rather than the domain of a designated department. There are three kinds of Web developer specialization: front-end developer, back-end developer, and full-stack developer. Front-end developers are responsible for behavior and visuals that run in the user browser, while back-end developers deal with the servers.

1.2 SOFTWARE USED:

a) Virtual Studio Code:

VS Code is a source-code by Microsoft for Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. Users can change the theme, keyboard shortcuts, preferences, and install extensions that add additional functionality. It is a source-code editor that can be used with a variety of programming languages, including Java, JavaScript, Go, Node.js, Python and C++. It is based on the Electron framework, which is used to develop Node.js Web applications that run on the Blink layout engine

b) Bootstrap:

Bootstrap is a free and open-source CSS framework directed at responsive, Mobile-first front-end web development. It contains CSS- and (optionally) JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components. Bootstrap is the seventh-most-starred project on GitHub, with more than 142,000 stars, behind freeCodeCamp (almost 312,000 stars) and marginally behind Vue.js framework.

c) MySQL:

MySQL is a relational database management system based on the Structured Query Language, which is the popular language for accessing and managing the records in the database. MySQL is open-source and free software under the GNU license. It is supported by Oracle Company.

CHAPTER 2: TRAINING WORK UNDERTAKEN

2.1 HTML & CSS (Front-end Development)

2.1.1 HTML(Introduction)

HTML stands for HyperText Markup Language. (**HTML**) is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. HTML is used to design the structure of a web page. It is a set of instructions on how to display content on a web page. With HTML constructs, images and other objects such as Interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML documents are written in html editors. Since the html document is written in plain , we can use any text editor.

Ex : notepad, notepad++, sublime text, eclipse, netbeans , VS Code etc.

2.1.2 HTML PAGE STRUCTURE

HTML PAGE STRUCTURE

```
<!DOCTYPE html>
```

<!--

Add your comments here

-->

<html>

<head>

<title> </title>

</head>

<body>

</body>

</html>

2.1.3 HTML TAGS

HTML TAGS :

HTML tags are the hidden keyword within a web page that define how the browser must format and display the contents. Most of these tags have 2 parts, opening tag and closing tag.

<p> : Opening Tag </p> : Closing Tag

Opening Tag and Closing Tag together are called as a Container .

2.1.4 TEXT FORMATTING and HYPERLINKS

Text Formatting:

There are six different heading tags.

<h1> I am Heading </h1>

<h2>I am Heading</h2>

Number defines the size of the text.

<i> : Tag to make text look italic.

`` : Tag to make text look bold.

``: Tag to make text look italic

These tags help the browser know about the special importance of text, not just styling. It also helps in SEO purposes.

`<u>` : Tag element is used to underline text.

`<mark>` : Tag element is used to highlight text.

HYPERTEXTING:

Any content, image or text can be linked to a new page. The text linked is called anchor text. Link is created using html.

`<a>click here` link.href="hypertext reference" `click here` target="_blank"
``This will open in another tab.
target="_self"`` This will open in the same tab.

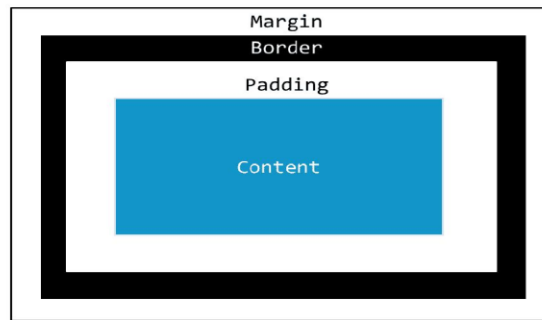
2.1.5 CASCADING STYLE SHEETS (CSS)

Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

There are three ways of Styling :

- 1) Inline
- 2) Internal
- 3) External

2.1.6 BOX MODEL



- ❖ Each and every element can be considered as a box.
- ❖ Innermost box called content contains content which could be image , text.
- ❖ Padding clears the area around the content. It is always transparent .
- ❖ Padding is surrounded by a border whose colour can be chosen.
- ❖ Margin clears the area outside the border. Default margin is 0. Margin is also transparently applied.

2.1.7 FONTS

Properties :

- 1) Font Style 2) Font Variant 3) Font weight 4) Font Size 5) Line height
- 6) Font family

Font size and Font family are mandatory.

For Ex : h4 { font: italic small-caps bolder 28px arial, sans-serif ; }

Comma is used in font family if there is unavailability of any font.

2.1.8 NAVIGATION BAR

Navigation Bar and logo are together often referred to as a header. Navigation bar links different sections within a page.

Navigation links are added using the <nav> tag. Using the tag inside the

<nav> tag we can create a navigation bar.

To create logo in navigation bar ;

```
<div id="header">

<a href="#" class="logo">


```

2.1.9 FORMS

It collects information stored in databases or sent to the server. Using the <form> element to create form.

```
<form>

<input type="text" placeholder ="Enter first Name" name="Firstname"><br><br>
<input type="submit">
```

2.2 BOOTSTRAP (Front-end Development)

2.2.1 INTRODUCTION

Bootstrap is a free and open-source CSS framework directed at responsive, mobile first front-end web development. It contains CSS and JavaScript-based design templates for typography, forms, buttons, navigation, and other components. Bootstrap is one of the simplest to implement and use in the market. Its implementation is as simple as importing a CSS and using the classes available. Bootstrap's responsiveness makes it all much simpler. It can intelligently sense the device's resolution and screen width and adjust the content accordingly. Bootstrap is supported by the huge open source community present on GitHub. Any bugs or issues are resolved in no time for the releases.

Linking Javascript File(Jquery) :

Javascript is used to make the page more dynamic, to add effects , animation etc. Javascript files in the JS folder of bootstrap are used to add predefined javascript functions in the html code. Script element in html is used to embed script within an html document.

```
<script type="text/javascript src="bootstrap/js/bootstrap.min.js"></script>
```

2.2.2 JUMBOTRON AND GLYPHICONS

JUMBOTRON is a big box for calling extra attention to some special attention content or information. Class Jumbotron is used to create jumbotrons.

It is represented in grey box and round corners. It also enlarges the text inside it.

Jumbotron takes the full width of the element.

```
<body>

<div class = "container">

<h1>This is a jumbotron</h1>

<div class="jumbotron">
```

We can also insert tables, content, text etc inside a jumbotron.

GLYPHICONS : It is the icon displayed on any web page.

```
<body>

<div class="container">

<h3>search</h3>

<h3 search <span class="glyphicon glyphicon_search"></span></h3>
```

2.2.3 THUMBNAILS

Thumbnails are reduced versions of audio and videos. Thumbnails take the available width.

```
<div class="container">

<h1>Thumbnails</h1>

<div class="col-sm-4">

<a href="#"></a>
```

Adding <a> tag to make thumbnails clickable.

Thumbnails are treated as links using anchor tags.

```

        . thumbnail { padding:4px;
                        border:1px solid
#ddd;                border-radius:4px;
        }

```

To add content in thumbnail ;

```

<div class="content">

<h3>                </h3>

<p>                  </p>

</div>

```

2.3 SQL(Back-end Development)

2.3.1 SQL INTRODUCTION

SQL is a domain-specific language used in programming and designed for managing data held in a relational database management system, or for stream processing in a relational data stream management system. A database server is a computer program that provides database services to other programs or computers, as defined by the client-server model.

2.3.2 INTRODUCTION TO DBMS

A system application for creating and managing your databases , access and can modify your Data . DBMS works in an efficient and secured manner.

DBMS Types :

- 1) Flat file database
- 2) Relational database : 1)hierarchical database 2)RDBMS
- 3) No SQL :
 - 1)Key value 2)column oriented 3)document oriented 4)Graph DB

2.3.3 CREATING A DATABASE

In technical terms: database is a set of multiple tables. Tables may be connected to each other by the concept of foreign keys.

INTRODUCTION TO SQL

Structured Query Language :

It is used to communicate with the database.

My SQL is an open source dbms.

My SQLi is an advanced version of My SQL.

Create command is used to create databases and tables.

2.3.4 DATA DEFINITION LANGUAGE

PRIMARY KEY

Primary key is a number uniquely associated with each row or record.

```
For ex: CREATE TABLE temp_db_products(id INT NOT NULL , name  
VARCHAR(30), category  
INT(30), PRIMARY KEY(id));
```

ALTER COMMAND

We can alter the structure of the existing table. Four keywords used with alter command are :

1)add 2)drop 3)change 4)modify

Ex: To add a column to an existing table.

```
ALTER table database-name.table-name ADD column-new data-type (length constraints)
```

To add a column from an existing table.

```
ALTER table database-name.table-name DROP column-name
```

DROP COMMAND

Syntax :

```
DROP database-name.table-name
```

```
DROP database temp_db;
```

FOREIGN KEY

Mapping between two tables is done using foreign key. A foreign key is a key used to link two tables together. This is sometimes also called a referencing key. A Foreign Key is a column or a combination of columns whose values match a Primary Key in a different table. To view relation views add storage to innodb operations. Relation views provide functionality to link columns of one table to columns of another table.

TRUNCATE COMMAND

Truncate command deletes all the records inside the table. Used when we only want to keep the structure of the table and delete the data. Php Myadmin allows users to execute truncate commands without using the SQL command.

2.3.5 DATA MANIPULATION LANGUAGE

A collection of those commands that help to INSERT, DELETE, MODIFY or pull out data from the database.

INSERT : This command is used to insert data into the tables.

For ex : INSERT INTO database-name (name, category) values(' ',' ')

UPDATE : This command is used to update the existing data in tables.

For ex : UPDATE database-name SET first_name = ' ' WHERE users.id= 1 ;

DELETE : This command is used to delete an entire row from a table. To delete a row ; make sure it does not have a primary key or foreign key

For ex : DELETE FROM users WHERE id= ' ' ;

SELECT : Select command is used to pull out the existing data from tables.

SELECT * FROM ' '

Use * to Display all the columns.

2.4 PHP(Hypertext Preprocessor)

2.4.1 PHP Introduction(Back-end Development)

PHP is a server side scripting language which is used to perform operations on databases. In building dynamic pages and websites functionality. PHP code is usually processed on a web server by a PHP interpreter implemented as a module, a daemon or as a Common Gateway Interface (CGI) executable. On a web server, the result of the interpreted and executed PHP code which may be any type of data, such as generated HTML or binary image data – would form the whole or part of a HTTP response.

2.4.2 BASIC PHP STRUCTURE

PHP STRUCTURE :

```
<!DOCTYPE html>

<html>

<head>

<title><?php echo"           "> </title>

</head>

<body>

<?php

    Echo"           ">

</body>

</html>
```

2.4.3 VARIABLES, DATA TYPES AND OPERATORS

To write variable name in php

```
$variable_name

<body>

<?php

    $var1=18;

    $var2=12;

    Echo gettype($var1);

    ?>

</body>
```

To perform addition :

```
<?php

    $var1=18;
```

```
$var2=12;  
  
$sum= $var1 + $var2 ;  
  
Echo $sum;  
  
?>
```

CHAPTER 3: CONCLUSION

3.1 CONCLUSION

After this six weeks of training at Internshala I get an introduction to the web D0development and also able to create my own website page using various method like Netbeans ,VS Code, Bootstrap and Wampserver and MySQL. This course gives a basic idea to a person about creating a web page using different languages and styling over a course of Six weeks so that a person can become comfortable in the field and he/she if wanted can be able to pursue a career in this and can go deep into the libraries used in the training. The Languages such as HTML, SQL and PHP are very easy and user friendly so that a person can able to focus more on the web developing aspect on the other hand he/she can also able to switch to the web designing in web development if he/she is comfortable in it.

3.2 FUTURE SCOPE

The Web Developer bears the responsibility for the coding, design, and layout of the website according to the company's specifications. A website is more important than anything for every business when it comes to reaching clients online. Every business knows today the need to have a website and is trying to design and create the best website to take its products or services online. With incredible progress in launching websites, businesses are searching for people who can build outstanding designs and platforms for their online presence. Web developers and designers bring their technical skills and experience to the creation and production of exclusive websites capable of attracting the crowd. They are striving to create more reliable sites through all-new frameworks, tools, and advancements.

a) ARTIFICIAL INTELLIGENCE

Artificial intelligence does not need to be introduced. Every article on technology, which we read on the web, reflecting the need for AI and how it would be the next thing on the web. AI is the future trend of web space development. It is justified as a lot of progress and advancements have been made in the field of Artificial Intelligence. Leading corporate companies like Google and Microsoft have launched their AI technology for the public, you can build your custom websites with the power of AI.

b) INTERNET OF THINGS(IOT)

It's a technology that is emerging at a faster rate than imagined. IoT is a future technology that makes our lives in management easy and efficient. Web developers are not directly linked to IoT, but will soon be involved in developing web applications that are needed for analysis and data for their operations. Few companies have started using Application Programming Interfaces, which are used by web developers to communicate with IoT. It would involve a connection between applications and physical devices that would require flexible developers.

c) VIRTUAL REALITY

Virtual reality is the long-awaited dynamic that many thought would take the world by storm, affecting everything in its path. Virtual reality is designed to affect many different elements of web design for a variety of different reasons. VR is sculpting a web path and is set to affect web design in many interesting new ways. Some MNCs and giants, such as Google and Microsoft, have already implemented virtual reality or web VRs. Virtual reality can simply be defined as the process of implementing computer technology to create a stimulating environment.

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