

INTERNSHIP TRAINING REPORT

*A report submitted in partial fulfillment of the
requirements for the Award of Degree of*

BACHELOR OF TECHNOLOGY

**In
Electrical & Electronics Department**

**By
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Roll No: 21EE37
Reg. No.: 21110109026**

(Training Duration: 30TH January 2024 to 26th March 2024)



**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
NALANDA COLLEGE OF ENGINEERING ,Affiliated to Bihar Engineering
University, Govt Of Bihar, Approved by AICTE, New Delhi, Govt Of India,**

1 Training Report

CERTIFICATE OF AUTHENTICITY

DEPARTMENT OF ELECTRICAL & ELECTRONICS DEPARTMENT

Nalanda College of Engineering,Chandi



This is to certify that the “**Internship/Training Report**” submitted by **RAVISH RANJAN (Reg. No.: 21110109026)** is work done by him and submitted during 2023 – 2024 academic year, in partial fulfillment of the requirements for the award of the degree of **BACHELOR OF TECHNOLOGY in ELECTRICAL & ELECTRONICS DEPARTMENT.**

INTERNSHIP CERTIFICATE



Certificate of Training

Ravish Ranjan

from Nalanda College of Engineering has successfully completed an 8-week online training on **Web Development**. The training consisted of HTML, CSS, Bootstrap, DBMS, PHP, JS, React, and Final Project modules.

Ravish scored 100% marks in the final assessment and is a top performer in the training.

We wish Ravish all the best for future endeavours.

A handwritten signature in black ink, appearing to read "Sarvesh".

Sarvesh Agarwal
FOUNDER & CEO, INTERNSHALA

Date of certification: 2024-02-07

Certificate no. : d2cmta9ygwo

For certificate authentication, please visit https://trainings.internshala.com/verify_certificate

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ACKNOWLEDGEMENT

First of all, I would like to express my sincere gratitude to the platform that helped me to do the online internship, Internshala.com, for their support, availability and insightful comments, and for steering me to the right direction whenever I needed it. I also would like to thank all the people who helped me complete this Internship/Training with their patience and openness and the enjoyable learning environment they created.

It is indeed with a great sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals. I would like to thank my Head of the Department Mr Ashish Ranjan for his constructive criticism throughout my internship.

I would like to thank my Department Internship Coordinator, Mr Nikhil Nigam, for his constant guidance and advice along the way, in both professional and personal matters.

I would also like to thank Internshala for their support and advices to complete internship in above said organization. I am extremely grateful to my department staff members, friends and my family who helped me in successful completion of this internship.

I would like to thank all those who I had the pleasure to learn with for making this demanding time joyful yet efficient, and for taking the time to answer any of my questions.

Finally, I must express my very profound gratitude to my parents for providing me with unfailing support and continuous encouragement throughout my years of study leading to this very moment, and particularly for their sacrifices this year that allowed me to study abroad.

RAVISH RANJAN

ABSTRACT

This report describes the work I have done as part of my Eight-week internship from a dynamic online platform named, Internshala.com. The first task of this internship was to introduce about Web Development, HTML & CSS which is the core part of the web development .

Web Development tutorial through Internshala provides basic and advanced concepts of Web. Web Development is broadly classified in two ways: Frontend & Backend Development. HTML, CSS, JavaScript & Bootstrap are the tools and technologies used to build the frontend/user interface part of a website. first I learned about the most basic/core part of web development which is HTML & CSS where HTML is used to build the basic structure of the website and CSS is used to add some style/design to the website.

The second task of this internship was to learn about

This report presents the result of my work on both of these tasks, specifically, details about the Web Development Concepts which provide the ability to simulate real-world websites much more effectively. We can build a website with incredible styles and dynamic effects by using the Web Development concepts which we have been taught during our internship.

Apart from the above mentioned topics I leant Office Work Skill such as Team Work, Report Writing, Knowing Products and Services .

ABOUT THE ORGANISATION

Internshala

Internshala.com is an online Platform for Trainings, Internships and Projects. The company is registered under Ministry of MSME, Govt. of India and also accredited by International Accreditation Services. The International Accreditation Service (IAS) provides objective evidence that an organization operates at the highest level of ethical, legal and technical standards.

Online Trainings have become very popular as they are affordable, convenient and flexible. Any student can learn the technologies at their own pace. The benefits of their online courses are that they provide students the opportunity to plan study time as per their other commitments. Students can study and work at their convenience.

Internshala also provides online project ,where students can complete their Pre Final and Final year Project online with expert guidance. They guide at each step, right from Synopsis preparation, Software Installation, Coding, Testing and implementation. It is convenient for the students to complete their project from their home.

Doing internships is no longer a choice but a necessity for college students like us. A large number of universities and colleges across India have made internships a part of their curriculum. With more and more employers looking for candidates with prior work experience, internships are the way out for students. They help them gain valuable professional experience and also understand the corporate work culture.

At Internshala the students gets a chance to learn the technology online and then apply for Internship at our partner companies to get real time work experience. Also, in today's world, students must have experience of work from home, using the gadgets and technologies available. That is where Internshala is different from many other online Platforms.

After spending a good some of six weeks with Internshala.com, I learnt their ultimate Objective in association with the Internship that they are providing. As it has been noticed that such platform is presented since long but the way they provided guidance is different. As I am a student from Bihar Secondary Board Education and these Internships, projects Mock or Communication Skills Have always been a challenge for me. Majority of students like me have to face this problem. I found the solution of my problems a Internshala.com

Their objective is to provide the best learning experience to all. The intern also learns soft skills, work culture, ethics and organizational behavior while undergoing training. This goes a long way in helping the student to secure permanent employment in the future. At the end of our training Internshala.com issue a Certificate attesting to their training and proficiency in a particular field

The second and the major purpose of Internshala are to make the student Industry ready. In order to provide the students or learners the best quality learning they focus and arrange the following cutting edge services as a part of their program:

- Online Support
- Timely lessons
- Doubt Clarifying Classes
- Webinars with Resource persons from Industry.
- Mock with Expert and many more.
- The most updated resource materials.
- Offline Support

In a nutshell their objective is to be the best by providing the best.

PLAN OF THE INTERNSHIP PROGRAM

- a) **Duration of the Internship: 8Week**
- b) **Start date of the internship: 30th January 2024**
- c) **End Date of the Internship: 26th March 2024**

LEARNING EXPERIENCES

❖ Knowledge Acquired:

I learnt in detail about the subject matter of my Internship. I learnt about the essential requirements what I should attain to be ready for my Professional Career. I have got a better idea about myself while learning with this platform. This internship introduced myself to a to real-life work problems and hence I developed problem-solving skills. The knowledge that I learnt with the help of this online Platform is also helpful in building career options after my technical education.

❖ Skills Learned:

I have learnt several skills during my Internship. The things that I found really very helpful are mentioned below:

❖ How to build my resume:

Like I said, this internship has improved my skills a ton, both off paper and on paper. I didn't realize it all of this time, but this position served not only as a positive learning experience, but a resume builder as well. I learned skills such as communication within a small business setting, event planning, marketing and display of products, and customer service in a business which focuses on the customer. They provided us sessions and resource material on how to write my resume. I have made my own Resume based on the session they arranged.

❖ Teamwork:

The first thing I need to mention is definitely team work. My internship experience is different from my college project where one person did all the work and the grades were shared among us. Here, it is more professional and each one in a team needs to work together to finish the task. I learnt to work as a team without focusing entirely on myself. I also learnt about the importance of Teamwork. I learnt how to act if I would be a member or I would be the Team leader. It provided me the real experience with their examples how to be in a Team.

❖ Knowing Product and Services:

I learnt that is highly recommended to know all the necessary details about the Product we are associated with. Our ideas should be creative but we must not ignore the conventional idea about our Product. We can be the best critic of our Product and find ways to upgrade our Product by learning its shortcomings. Self Evaluation is the best evaluation so we should be our own judge and try to earn the customers' trust for a long run.

❖ Group Discussion:

We learnt what is a Group Discussion, what are the assessment measures utilized for choosing/filtering participants, and how might one guarantee success in GDs. I learnt that while short listing a candidate in a Group Discussion the Interview panel finds a person who can communicate with a number of people such as colleagues, clients, customers,

and many more to bring business for the company. So, the one candidate who has the leadership activity and whose expressions are effective and also who has the power to organize his knowledge with the suitable word becomes the ultimate choice of the panel. So in a nutshell the panel's prime concern is to find out-who can make his presence outstanding in the group. It becomes essential to be a good listener and then try to snatch the time and put up your opinion in a logical manner.

❖ Making Reports:

The thing that I learnt under the term Report is as follows:

It is an **organized statement of facts** relating to a particular subject matter prepared by the writer after making independent inquiry or investigation with or without opinions or recommendations. Points that I learnt about writing a Report:

Accurate: The writer should be very obvious in drafting a report. The draft should be precise.

Correctness: The sentence structure should be simple. The writer should avoid any grammatical errors. The Report should look neat.

Data: Inaccurate data may cause serious problems so the writer should be very precautionary while writing a Report.

No Diction Error: No grammatical error is accepted in a Report. If a writer leaves grammatical errors gives an impression of the writer to be irresponsible. **Significance:** Irrelevant information should not be included in the report. If relevant information is not included, the report is incomplete. If irrelevant information is included the readers are puzzled.

Simple words: The writer should use simple words and easy to understand language.

Arrangement of Matters: The subject matter of the report should be symmetrically arranged. If so, the readers can understand the report in the right direction.

❖ SWOT Analysis:

I learnt that SWOT analysis is a technique that enables organizations or individual to move from everyday problems and traditional strategies to a fresh perspective. SWOT analysis looks at your strengths and weaknesses, and the opportunities and threats your business faces. SWOT can help your company face its greatest challenges and find its most promising new markets. The SWOT Analysis framework is a very important and useful tool to use in marketing Management and other business applications. A clear understanding of SWOT is required for business majors. It is a technique that enables organizations or individual to move from everyday problems and traditional strategies to a fresh perspective.

❖ Facing Interviews

After the completion of my training I learnt about the basic and important aspects to be Industry ready. I learnt about one of the crucial things 'Facing Interviews'. The details and the idea what the Internshala provided me is going to help me in building my career. The mock session was really very helpful to know my mistakes and not to repeat in future.

❖ **Telephonic Interviews/Communication Skills:**

It's one of the top listed skills that recruiters look for in a resume and something that can get us from bottom to top. Communicating well is a gem of a skill which we learnt during our internship experiences. They provided us the experience of telephonic Interview. I found the experience as a life-long learning experience.

❖ **Live Discussions with Experts:**

The Internship provided me sessions with Experts from Industry. It helped me to clear my assumptions and doubts. The Experts were highly knowledgeable and were happy to help us.

❖ **Observed attitude and gained values:**

My internship allowed me to better understand the professional workplace and expectations that come with it. The knowledge I learned and experiences I had are highly beneficial for me. Internshala's online and offline supports were very supportive and friendly during my internship. They are very knowledgeable and willing to share that knowledge with me so I would get the most out of my time with them. I was very fortunate to be an intern and now have the chance to become a full-time member of their team by being a regular student. The internship program is great for students to get experience of the workplace with the help of their material and resource persons.. The internship is not only beneficial for the knowledge that you obtain but also the networking aspect of meeting real professions in the workplace.

❖ **The most challenging task:**

The challenge that I faced is time management. Earlier, I could just miss a class because I had some personal commitments. During this internship which is almost the beginning of my work life, I realized that I can't mark my absence on a regular basis. That's why it helped me to learn to manage time better by maintaining a balance between work and personal life, without harming any of them.

The internship program is a great bridge for graduating students into the workplace.

SWOT ANALYSIS

Strength, Weaknesses, Opportunity and Threats

Strength <ul style="list-style-type: none">· Brand· Resource Persons· Connectivity	Opportunity <ul style="list-style-type: none">· Online Learning· Growing Technical Demand· Technological Advancement
Weaknesses <ul style="list-style-type: none">· Load on Internet· Limited Subjects	Threats <ul style="list-style-type: none">· Competitors· Work load· Duplicity

WEB DEVELOPMENT



Web development refers to the building, creating, and maintaining of websites. It includes aspects such as web design, web publishing, web programming, and database management. It is the creation of an application that works over the internet i.e. websites.

Web Development can be classified into two ways:

- Frontend Development
- Backend Development

Frontend Development: The part of a website that the user interacts directly is termed as front end. It is also referred to as the ‘client side’ of the application.

Some major components of "Frontend Development" are as follows.

- HTML
- CSS
- JavaScript
- Bootstrap

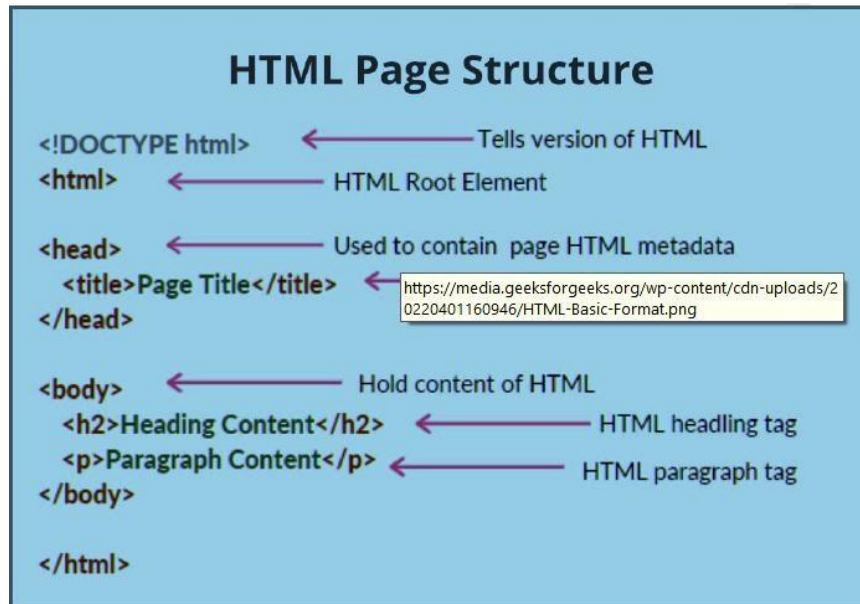
Backend Development: Backend is the server side of a website. It is the part of the website that users cannot see and interact. It is the portion of software that does not come in direct contact with the users. It is used to store and arrange data.

Some major components of "Backend Development" are as follows.

- PHP
- SQL
- MySQL

DESCRIPTION

1. **HTML:** It stands for **HyperText Markup Language**. It is used to design web pages using the **markup language**. HTML is the combination of **Hypertext** and **Markup language**. Hypertext defines the link between the web pages and markup language defines the text document within the tag that define the structure of web pages, an HTML element is defined by a start tag, some content and an end tag: `<tagname>content goes here..</tagname>`.



List of some commonly used HTML tags:

]	Use
<code>(<HTML> . . . </HTML>)*</code>	The entire HTML document
<code>(<HEAD> . . . </HEAD>)*</code>	The head, or prologue, of the HTML document
<code>(<BODY> . . . </BODY>)*</code>	All the other content in the HTML document
<code><TITLE> . . . </TITLE></code>	The title of the document
<code><H1> . . . </H1></code>	First-level heading large text size
<code><P> . . . (</P>)*</code>	Paragraph Hitting a return in the HTML file will not make a new paragraph when the file is viewed. You need to use this tag to make a new paragraph.

 	Line Break This tag will show a blank line.
<HR>	Horizontal Rule Creates a horizontal line on the page.
<!-- ... -->	Comment The comments you write in the middle will not show up on the page when viewed.
 ... 	Link (A=Anchor) links the current HTML file to another file. Example: Go back to Main Menu This will display the file which is named in the quotes. The name of the link, which is the colored words you actually see goes between the first > and the second <. Here, the name of the link is Go back to the Main Menu Another example is : ILT Net This link will take you to another page on the Internet. You can see the Internet address in the quotes.
<DL> <DT> <DD> </DL>	Definition list Put <DL> at the beginning, </DL> at the end, and <DT> for each "definition term" in the list. Use <DD> for each "definition" of each term. The definition will be indented. <DL> <DT>Item One <DD>Item One Definition </DL><=""" td="">
	Inline Image Put the name of the graphic (.gif or .jpg) in the quotes.
 ... 	Bold Makes text bold
<I> ... </I>	Italic Makes text italic
<font size="+3"...	Font Size This tag is used to change the size of the font. It is better than using the header tag to make the font appear bigger.

<pre> <table> <TR> <TD> </TD> </TR> </Table> </pre>	<p>"Table"=Starts a table. "TR" (Table Row) = Starts a row. "TD" (Table Data) = Starts a cell to enter data. "/TD" = Puts an End to data entry. "/TR" = Puts an end to a row. "/table" = Ends Table.</p>
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2. CSS: CSS (Cascading Style Sheets) is a stylesheet language used to design a webpage to make it attractive. The reason for using this is to simplify the process of making web pages presentable. It allows you to apply styles on web pages. More importantly, it enables you to do this independent of the HTML that makes up each web page.

There are three types of **CSS** which are given below:

Inline:Inline CSS contains the CSS property in the body section attached with the element known as inline CSS.

· **Internal or Embedded:** The CSS ruleset should be within the HTML file in the head section i.e the CSS is embedded within the HTML file.

· **External:** External CSS contains a separate CSS file that contains only style property with the help of tag attributes.

List of some commonly used CSS Properties:

Property	Description	Values
color	Element color	
background color	Background color	
background image	Sets the background image	
display	Display behavior	{block, inline-block, inline, none}
width	Element width	
height	Element height	
min-width	Minimum width	
min-height	Minimum height	
max-width	Maximum width	

max-height	Maximum height	
margin	Outer margins property	
padding	Inner margin property	
border	Border property	
border-color	Border color	
border-width	Border width	
border-style	Border style	{none, solid, dotted, inset, dashed solid ...}
border-radius	Border radius	
font	Font properties	
font-family	Defines the font	
font-style	Font style	{normal, italic, oblique}
font-weight	Thickness of the font	{normal, bold, lighter, bolder}
position	Type of positioning used for an element	{static, relative, absolute, fixed, sticky}
z-index	Sets the order of overlapping elements	{auto, -1, 0, 1, 2, 3 ...}

3. JavaScript: JavaScript is a text-based programming language used both on the client-side and server-side that allows you to make web pages interactive. Where HTML and CSS are languages that give structure and style to web pages, JavaScript gives web pages interactive elements that engage a user. Common examples of JavaScript that you might use every day include the search box on Amazon, a news recap video embedded on The New York Times, or refreshing your Twitter feed.

Incorporating JavaScript improves the user experience of the web page by converting it from a static page into an interactive one. To recap, JavaScript adds **behavior** to web pages.

Why we use JavaScript over other programming languages? Aside from the unlimited possibilities, there are many reasons for web developers to use JavaScript over other programming languages:

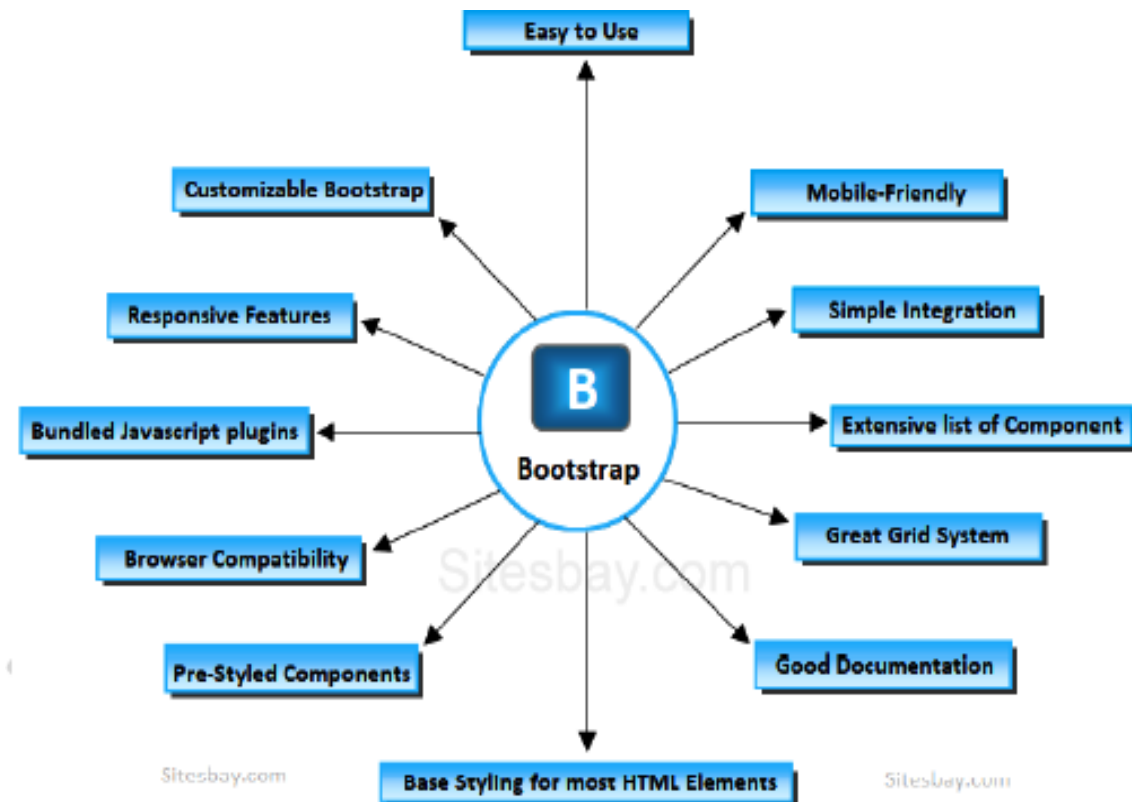
- JavaScript is the only programming language native to the web browser
- JavaScript is the most popular language
- There's a low threshold to get started
- It's a fun language to learn



4. **Bootstrap:** **Bootstrap** is a free and open-source tool collection for creating responsive websites and web applications. It is the most popular HTML, CSS, and JavaScript framework for developing responsive, mobile-first websites. Nowadays, the websites are perfect for all the browsers (IE, Firefox, and Chrome) and for all sizes of screens (Desktop, Tablets, Phablets, and Phones). All thanks to Bootstrap developers – Mark Otto and Jacob Thornton of Twitter, though it was later declared to be an open-source project.

Why we use Bootstrap?

- It is Faster and Easier way for Web-Development.
- It creates Platform-independent web-pages.
- It creates Responsive Web-pages.
- It designs the responsive web pages for mobile devices too.
- It is Free and open-source framework available on www.getbootstrap.com



5. **PHP:** Like any other scripting language, **PHP** is fundamentally the tool you use both to connect to your database to get information and to hand that information over to your web server to be displayed in HTML. But there are many aspects of PHP that set it apart from other languages.

In a nutshell, PHP is:

- **A Scripting Language** – Scripting languages are interpreted by another program at runtime (no need for compilation). Scripting languages can either be interpreted server-side or client-side (in the browser).
- **Server-Side** – PHP is a server-side scripting language, processed by a PHP interpreter on a web server; the result (the output) is sent to the web browser as plain HTML.
- **Open-Source** – PHP is freely available to download and use.
- **Object-Oriented** – Object-Oriented Programming (OOP) leverages the concept of “objects” to contain data and functions to help build more complex, reusable web applications. OOP was added to PHP5.
- **Fast** – PHP uses its own memory, minimizing server workload and increasing performance. PHP can be up to 382% faster than Python and 195% faster than Ruby.
- **Simple** – The PHP syntax is easily understood and learned, whether you’re building from scratch or leveraging existing frameworks or addons.
- **Well Supported** – PHP supports all leading databases (MySQL, SQLite, ODBC), is compatible with most servers (Apache, IIS, etc), is portable across all platforms (Windows, Mac OS, Linux, etc), and can be further supported by PHP frameworks. (Laravel, CodeIgniter, Symfony) and many well-stocked and vetted libraries.

6. SQL : Structured Query Language (SQL) is a standardized programming language that is used to manage relational databases and perform various operations on the data in them. Initially created in the 1970s, SQL is regularly used not only by database administrators, but also by developers writing data integration scripts and data analysts looking to set up and run analytical queries.

SQL is used for the following:

- modifying database table and index structures;
- adding, updating and deleting rows of data; and
- retrieving subsets of information from within relational database management systems (RDBMSes) -- this information can be used for transaction processing, analytics applications and other applications that require communicating with a relational database.

Most Common SQL Commands

SQL statements can be grouped in different categories:

Data Definition Language(DDL) Commands

- **CREATE:** creates a new database object, such as a table.
- **ALTER:** used to modify the database object
- **DROP:** used to delete the objects.

Data Manipulation Language(DML) Commands

- **INSERT:** used to insert a new data row record in a table.
- **UPDATE:** used to modify an existing record in a table.
- **DELETE:** used delete a record from the table.

Data Query Language(DQL) Commands

- **SELECT:** it is the DQL command to select data from the database.

Data Control Language(DCL) Commands

- **GRANT:** used to assign permission to users to access database objects.
- **REVOKE:** used to deny permission to users to access database objects.

Data Transfer Language(DTL) Commands

- **COMMIT:** used to save any transaction into the database permanently.
- **ROLLBACK:** restores the database to the last committed state.

7. SQL : Structured Query Language (SQL) is a standardized programming language that is used to manage relational databases and perform various operations on the data in them. Initially created in the 1970s, SQL is regularly used not only by database administrators, but also by developers writing data integration scripts and data analysts looking to set up and run analytical queries.

Thus, you could examine the table you want to get the information you need. If it wasn't a relational database, then both pieces of data would be stored in the same location.

MySQL Database

MySQL is a fast, easy-to-use RDBMS being used for many small and big businesses. MySQL is developed, marketed and supported by MySQL AB, which is a Swedish company. MySQL is becoming so popular because of many good reasons –

- MySQL is released under an open-source license. So you have nothing to pay to use it.
- MySQL is a very powerful program in its own right. It handles a large subset of the functionality of the most expensive and powerful database packages.
- MySQL uses a standard form of the well-known SQL data language.
- MySQL works on many operating systems and with many languages including PHP, PERL, C, C++, JAVA, etc.
- MySQL works very quickly and works well even with large data sets.
- MySQL is very friendly to PHP, the most appreciated language for web development.
- MySQL supports large databases, up to 50 million rows or more in a table. The default file size limit for a table is 4GB, but you can increase this (if your operating system can handle it) to a theoretical limit of 8 million terabytes (TB).
- MySQL is customizable. The open-source GPL license allows programmers to modify the MySQL software to fit their own specific environments.

CONCLUSION AND SUGGESTIONS



REFERENCES AND SOURCES USED

1. Communication networks and systems for power utility automation – Part 1: Introduction and Overview", 2012.
2. Communication networks and systems for power utility automation – Part 5: Communication requirements for functions and device models", 2012.
3. Online Resources
4. Google.com

NOTE- The references mentioned above and the subject matter are only for understanding purpose. It is to tell you what and how to write under Bibliography section and in order to write Internship Report.

Thank you!