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REG.NO: M23B38/007

COURSE UNIT: WEB APPLICATION AND DESIGN

REPORT OF LAB2 ACTIVITY

SUMMARY OF KEY POINTS LEARNT IN THE LAB

Part 1: Understanding the Internet

1. Introduction to the Internet:

The internet is a vast network of interconnected computers that allows people from all over the world to communicate and share information. It has revolutionized the way we live, work, and learn, and it continues to evolve at an astonishing pace.

2. Internet Infrastructure:

The internet is made up of a complex network of physical and logical components, including routers, servers, and cables. These components work together to allow data to flow between computers in a seamless and efficient manner.

3. Internet Protocols:

Protocols are sets of rules that govern how computers communicate with each other. The most important internet protocols are TCP/IP (Transmission Control Protocol/Internet Protocol) and HTTP (Hypertext Transfer Protocol). TCP/IP is responsible for breaking data into packets and sending them across the network, while HTTP is responsible for retrieving and displaying web pages.

Part 2: Web Browsing and Basic Navigation

1. Web Browsers:

Web browsers are software applications that allow users to access and interact with web pages. They are responsible for rendering HTML code into the visual elements that we see on our screens. Popular web browsers include Google Chrome, Mozilla Firefox, and Microsoft Edge.

2. Launching a Web Browser:

To open a web browser on a computer, one can simply click on its icon or launch it from the Start menu.

3. Navigating the Web:

To navigate the web, one can enter URLs (Uniform Resource Locators) in the browser's address bar. URLs are unique identifiers for web pages, and they consist of a protocol (e.g., HTTP or HTTPS), a domain name (e.g., www.google.com), and a path (e.g., /search).

4. Understanding URLs:

URLs are made up of several components:

Protocol: The protocol identifies the type of communication that will take place. The most common protocols are HTTP and HTTPS.

Domain Name: The domain name is the unique identifier for a website. It is typically composed of a combination of words and numbers separated by periods.

Path: The path specifies the location of a specific resource within a website. It is typically composed of a series of folders and filenames separated by slashes.

Query Parameters: Query parameters are used to pass additional information to a web server. They are typically appended to the end of a URL after a question mark.

Part 3: Practical Activity - Exploring Web Pages

1. Accessing Websites:

To access a website, one can simply type its URL into the browser's address bar and press Enter. The browser will then retrieve the website's HTML code and render it into a visual page.

2. Examining Web Pages:

Web pages are composed of HTML code, which is a markup language that defines the structure and content of a page. You can view the HTML code of a page by right-clicking anywhere on the page and selecting "Inspect" or "View Page Source."

3. Browser Developer Tools:

Most web browsers have built-in developer tools that provide a variety of features for debugging and analyzing web pages. These tools can be used to view the HTML code, inspect CSS styles, and identify potential problems.

PART 4: TOPIC SUMMARY

Topic: The Creation of the World Wide Web

Introduction

The World Wide Web (WWW) is an information system that allows users to access and interact with a vast collection of hypertext documents and multimedia resources. It is the most popular and widely used web-based service on the internet today. The WWW was invented by Tim Berners-Lee at CERN, the European Organization for Nuclear Research, in 1989.

Background

Prior to the creation of the WWW, there were a number of hypertext systems in existence, but these systems were not widely used and were not interconnected. Berners-Lee envisioned a system that would allow anyone to access and share information from anywhere in the world. He proposed a "universal linked information system" that would use a simple markup language, Hypertext Markup Language (HTML), to define the structure and content of web pages.

Development of the WWW

Berners-Lee developed the first web browser, WorldWideWeb, and the first web server, CERN httpd, in 1990. He also defined the Hypertext Transfer Protocol (HTTP), which is the foundation of communication between web browsers and web servers.

Release of the WWW

In 1991, Berners-Lee announced the existence of the WWW and made the necessary software available to the public. This led to a rapid growth in the use of the WWW, and by 1993 there were over 100 web servers in operation.

Impact of the WWW

The WWW has had a profound impact on society. It has revolutionized the way we communicate, access information, and conduct business. The WWW has also created new industries and job opportunities.

Conclusion

The creation of the World Wide Web is one of the most significant events in the history of the internet. It has democratized access to information and has made it possible for people from all over the world to connect and share ideas. The WWW continues to evolve and grow, and it is likely to play an even more important role in our lives in the future.