

Department of Computer and Software Engineering

SE100L: Information and Communication Technologies Lab

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Lab Engineer : Asif Ali	Semester: Fall 2023
Batch: BSSE23	

LAB 2 Internet and Search Engines

Name	Roll. No.	Total Marks (35)
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2.1.Objective

This lab is based on the introduction of internet and search engines. Different ways of making research efficient will be discussed.

2.2.Description

Internet

Internet is a global information system or a global communication network connecting millions of computers.

World Wide Web

It is a huge resource of information, any one from anywhere in the world can access the information using a very simple scheme using the link and URLs.

2.3.Browser

A tool we use to access the content of the web. Examples are IE, Firefox, and Google Chrome. **URL**

It is a unique address assigned to a unique page on the web. We navigate through the web by clicking on the links.

2.4.Website

It is a collection of related documents available on the web. For instance: Google.

2.5.Search Engine

It continuously scans the web, and compiles the list and results of all the Webpages they find.

Keyword Search

- A keyword can simply be any word on the web.
- Will tell about the subject and content of the webpage

Phrase search, best search tool, for example “vitamin A”, “internet and world wide web”

Using Boolean Operators

AND retrieve records in which BOTH of the search terms are present

OR logic collates the results to retrieve all the unique records containing one term, the other term, or both of them.

NOT retrieve records in which ONLY ONE of the terms is present, the one we have selected by our search

Other Techniques

- Advanced search: allows you to be more specific about what type of information you are looking for.

2.6.Lab Tasks

Task 1: Internet Basics

1.1. Define key internet-related terms:

Internet: The Internet is a globally connected network system that facilitates communication and data services through a vast collection of private, public, business, academic, and government networks.

World Wide Web (WWW) : It refers to all the public websites or pages that users can access on their local computers and other devices through the internet.

URL: A URL is nothing more than the address of a given unique resource on the Web.

IP address: An IP address is a unique address that identifies a device on the internet or a local network. IP stands for "Internet Protocol."

Browser : A browser is a software program that is used to explore, retrieve, and display the information available on the World Wide Web.

ISP (Internet Service Provider): It is a company that provides access to the internet to individuals and organizations around the world.

1.2. Explain the concept of web servers and how they function.

Web servers are used to store, process and deliver web pages to the user. This intercommunication is done using Hypertext Transfer Protocol (HTTP).

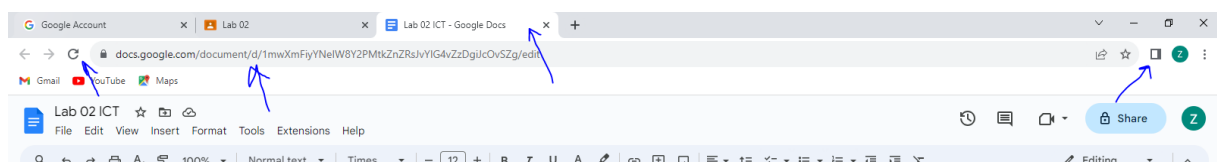
1.3. Discuss the difference between a static and dynamic website.

A static web page is a web page that is delivered to the user's web browser exactly as stored, in contrast to dynamic web pages which are generated by a web application. Static websites are those whose contents cannot be changed without the developer editing the source code. Whereas in dynamic websites the site owner will be able to change the site contents from an admin dashboard without much technical knowledge or say without needing the help of a developer.

Task 2: Navigating the Web

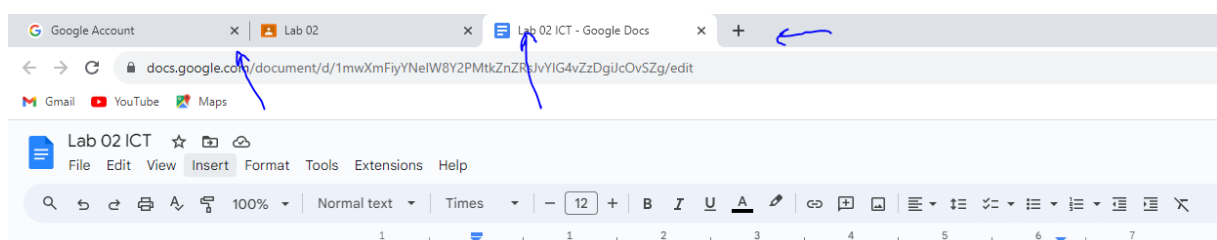
2.1. Open a web browser and explore the browser's interface. Identify and explain the purpose of common features such as the address bar, tabs, bookmarks, and the refresh button.

Address bar is located at the top side of the web browser. It is used to search specific websites and web pages. Tabs can also be accessed by clicking on the plus sign on the browser. It is used to allow users to open multiple websites in a single window. Bookmarks are used to a web browser feature used to save a web site's URL address for future references. Refresh button is used to reload a web page and it is located at the top left side of the browser page.



2.2. Demonstrate how to open a new tab, close tabs, and switch between them.

New Tabs can also be accessed by clicking on the plus sign on the browser. And by clicking on the cross sign to close tabs. To switch between tabs, left click on the mouse to choose your specific tab.



2.3. Visit three different websites and take notes on their content and purpose. Discuss

what you found interesting about each site.

ChatGPT is a natural language processing tool driven by AI technology that allows you to have human-like conversations and much more with the chatbot.

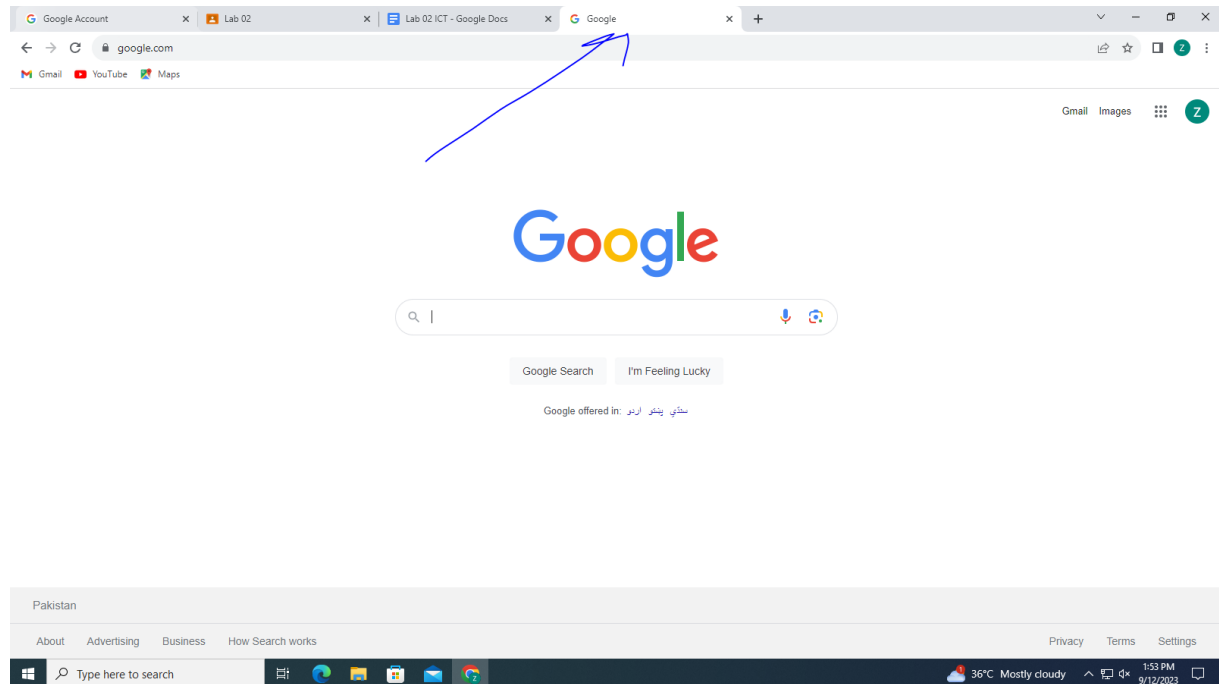
Youtube is used to access entertainment videos, educational content etc.

Desmos is a graphing website used for mathematical calculations and the plotting of graphs.

What I found interesting about these websites is that they can be used to enhance your knowledge and can make you use your time efficiently.

Task 3: Effective Search Engine Usage

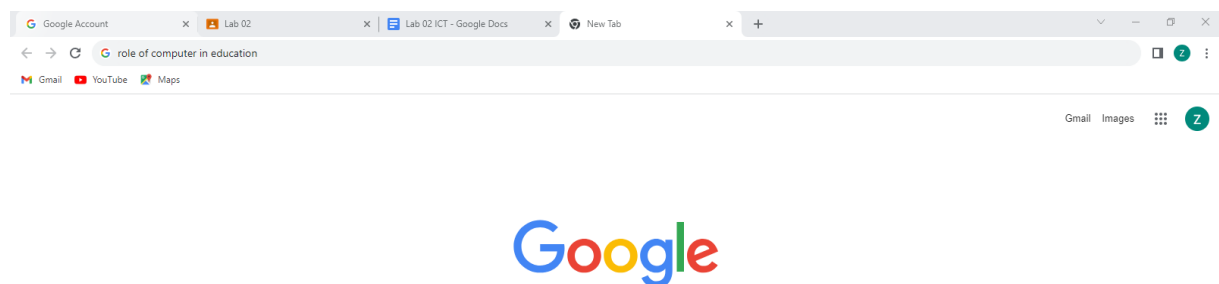
3.1. Choose a popular search engine (e.g., Google) and open it in a new tab.

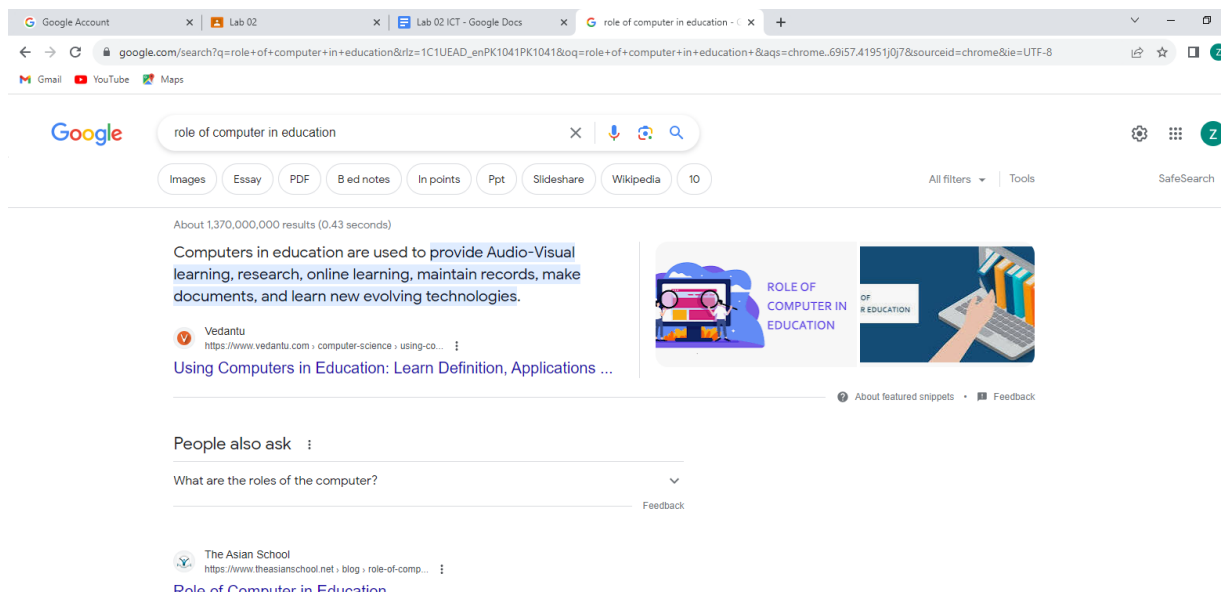


3.2. Explain the purpose of a search engine and its role in helping users find information on the internet.

A search engine is an online tool that is designed to search for websites on the internet based on the user's search query.

3.3. Perform a basic web search on a topic of your choice. Take note of the keywords you used.





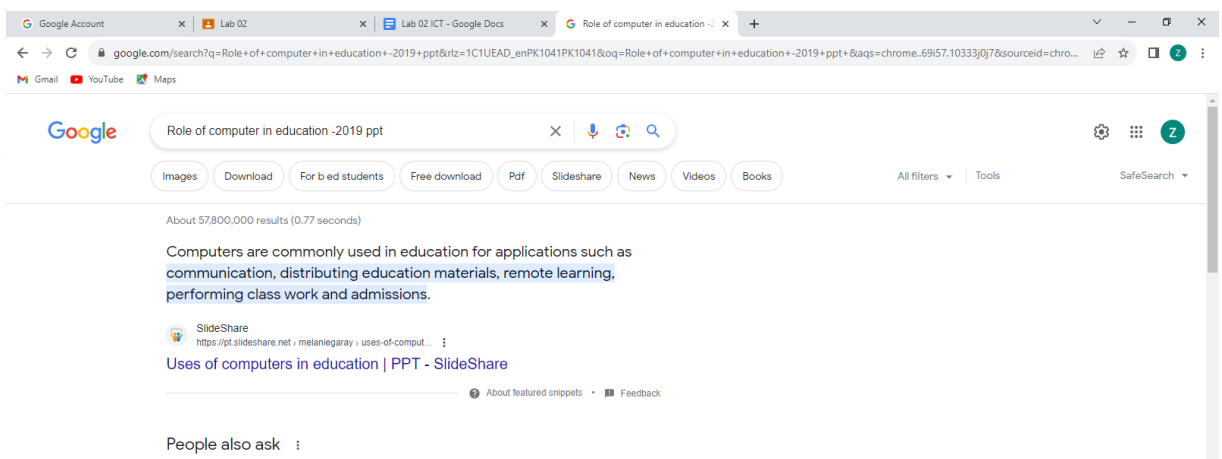
3.4. Refine your search using advanced search techniques such as:

Using quotation marks for exact phrases.

Using the minus sign (-) to exclude specific words.

Using site: to search within a specific website.

Using file type: to search for specific file types (e.g., PDF).



Using Google to search, minus the year 2019 from the search, using quotations to search specific person authors etc, used ppt and got ppt of other peoples on specific topics.

3.5. Compare the search results between the basic search and the refined search. Discuss the improvements in the quality of results.

When I used basic search, I didn't get specific results that I was looking for and when refined search, I got the content I was looking for as well as much better and refined content.

Task 4: Website Evaluation

4.1. Choose a website from your search results and evaluate its reliability. Consider

factors such as the source's authority, credibility, and bias. Discuss your findings.

I searched youtube and to check its reliability I applied six criterias to evaluate it which are authority, accuracy, objectivity, credibility , coverage, and appearance. I found youtube very reliable as it checks out all the criteria. It doesn't install unnecessary content and doesn't damage the hardware software.

4.2. Check if the website has a "Contact Us" page or an "About Us" section. Discuss why these elements are important for evaluating a website's trustworthiness.

These elements are important due to legal security reasons and to ensure the safety of the user. Also to get to know what the user is getting into and what the contents of the website is about.