Information Technology Support Service

Level II

Learning Guide 31

Unit of Competence: Access and Use Internet

Module Title: Accessing and Using Internet

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LO 1: Access the Interne

Instruction Sheet	Learning Guide # 31

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics:-

- Opening internet browser and setting up home page by using internet options
- Adjusting display/view mode
- Modifying toolbars
- Modifying toolbars
- Accessing and retrieving data from particular site
- Loading image
- Opening URL to obtain data and browser link
- Deleting cookies and history of internet browser

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to:-

- Open Internet browser and a home page of personal choice by set up internet options
- Adjust Display/view modes to suit personal requirements
- Modify toolbar to meet user and browsing needs
- access and retrieve particular site
- load or not load Images depending on modem speed, computer and browser capabilities
- Open URL to obtain data and browse link
- Delete Cookies and history of internet browser as precaution from virus infection

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below 3 to 6.
3. Read the information written in the information “Sheet 1, Sheet 2, Sheet 3 and Sheet 4,” **in page -3,4, 5,6,7,10,11,13,15 and 17** respectively.
4. Accomplish the “Self-check 1, Self-check 2, and Self-check- 3, Self-check and Self-check-4 **in page 8,12, 14,16** respectively
5. If you earned a satisfactory evaluation from the “Self-check” proceed to “Operation Sheet 1, Operation Sheet 2, Operation Sheet 3, Operation Sheet 4, Operation Sheet 5 and
6. Operation Sheet 6 **in page 16, 17, 18 and 19.**
7. Do the “LAP test” **in page 20**

Information Sheet-1	Opening internet browser and setting up home page

1.1. Definition and use of Internet

The Internet is means of connecting a computer to any other computer anywhere in the world via dedicated routers and servers. When two computers are connected over the Internet, they can send and receive all kinds of information such as text, graphics, voice, video, and computer programs.

No one owns Internet, although several organizations the world over collaborate in its functioning and development. The high-speed, fiber-optic cables (called backbones) through which the bulk of the Internet data travels are owned by telephone companies in their respective countries.

The internet developed from software called the ARPANET which the U.S military had developed. It was only restrict to military personnel and the people who developed it. Only after it was privatized was it allowed to be used commercially.

The internet has developed to give many benefits to mankind. The access to information is one of the most important. Student can now have access to libraries around the world. Some charge a fee but most provide free services. Before students had to spend hours and hours in the libraries but now at the touch of a button students have a huge database in front of them

1.2. Basic Internet Terms and Terminology

Here is a look at the buzzwords of the world of Internet.

- **ARPANET**: The acronym stands for Advanced Research Projects Agency Network. ARPA of the United States Department of Defense developed ARPANET, which became the world's first packet switching network. Internet is the successor of ARPANET.
- **Internet Service Provider**: A company, which provides users with an access to the Internet, is known as an Internet service provider or Internet access provider. ISP, as it is called, offers email accounts and other services like remote storage of files for its customers. Here is a word about choosing a cheap ISP.
- **IP Address**: It is a way of numerically identifying an entity on a computer network. The original addressing system known as IPv4, used 32 bit addresses. With the growth of the Internet, IPv6 came to be used wherein the addresses are composed of 128 bits.
- **Cyberspace**: This term coined by William Gibson, is used to refer to the computer networks connected to each other and the content they host. It is often used to refer to the Internet.

- **WWW:** It is a collection of interlinked documents that are accessible over the Internet. It consists of millions of web pages that contain text, images, voice and videos. Sir Tim Berners-Lee, a British scientist working at CERN, created the World Wide Web.
- **Website**: A website is a set of web pages consisting of text, audio and video. Web servers host websites.
- **URL**: It specifies the location of a resource on the Internet. It consists of the basic address and path.
- **Web Page**: Web pages are resources of information. They are generally created in the HTML format and provide the web users with navigational abilities through hyperlinks to other web pages on the web.
- **Home Page**: The term home page is used to refer to the page that is the default page of any website. It is the main page of a complex website.
- **Web Browser**: A web browser is a software application that facilitates user interaction with the text, audio, video and other information that is located on the web.
- **Cache**: Web browsers maintain a cache of recently visited web pages. Some of them use an external proxy web cache, which is a server program through which web requests pass. This enables the browsers to cache frequently visited pages. Even search engines make available already indexed web pages through their caches.
- **HTTP:** Hypertext Transfer Protocol, abbreviated as HTTP, is a communications protocol used for the transfer of information over the Internet. A client makes an HTTP request using a web browser to which an HTTP response is sent from the server.
- **Web Cookie**: Also known as an HTTP cookie, it is piece of text that is exchanged between the web client and the web server. It is sent by the web server to the web client and returned unchanged by the client each time it accesses the server.
- **Session**: It is an exchange of information between a computer and its user. It is established for a certain period of time after which it ends.
- **Hyperlink**: A reference in a document to another section of the document or to another document is termed as a hyperlink. Hyperlinks are used to redirect the user from one section of a page content to another.
- **Internet Security**: It is one of the major concerns today. As the Internet acts as a communication platform that can be accessed by millions of users around the world, it becomes necessary that proper measures be implemented. Issues like Internet Safety that deal with the content that is made

accessible over the Internet are equally important. Internet Privacy relates to safeguarding the privacy of the web users and the sensitive information on the web from hackers and stalkers.

1.3. Opening internet browser and setting up home page by using internet options

- **Browser Software**

  Is a software program that allows a user to locate, access, and display web pages over the internet. The best internet browser isn't necessarily the default one that comes with your device. However, there are a number of very good browsers to choose between, and the right one for you will depend on your requirements.

- **Types of browsers**

  - ✓ **Mozilla Firefox: Best overall**

    Mozilla's Firefox is one of the fastest internet browsers we tested for navigating between sites and for fully loading pages. It also proved to be the most secure during our in-house tests using live malware.

    This browser is compatible with Mac and Windows operating systems, and with Android and iOS cell phones and tablets. It syncs your passwords, bookmarked pages and browser settings so you have access to these – as well as your search history – on other computers and mobile devices.

    Mozilla includes a privacy browser so you can search online without cookies or other trackers. And you can set this browser to delete all the cookies, cache and browser history each time the browser closes. Mozilla is nicely laid out and has a clean interface, so it's easy to find most tools and features. You can have multiple browser tabs open at once in a single window and rearrange their order by dragging and dropping the tabs. If you accidentally close a tab, or even the entire browser, Firefox will recover it for you.

  - ✓ **Chrome: Best for Google Drive**

    Google Chrome comes standard on most Android mobile devices, so it is a good choice for cell phones and tablets. Plus we've found that it works a bit better than Firefox on Android devices. Chrome is also a good choice for Windows and Mac computers.

    If you use Chrome on multiple devices, logging in to your account will give you quick access to documents you saved in Google Docs, your Gmail messages and your bookmarks, regardless of the device you're on. Search history is also saved with your account, so if you're logged in, terms you've looked for will auto-populate when you start typing in the Google search field on any device.

Chrome lets you set icons on your toolbar so you can quickly get to the pages you visit most often. You can also pin bookmarks to the Google Chrome homepage. It has tabbed browsing so you can have multiple viewing windows open at once and easily toggle between them. During out in-house tests, we noticed Chrome didn't identify as many phishing schemes as Firefox, but it did stop malicious files, including ransomware and Trojans, from opening and infecting our computer. Chrome's privacy browser is available on all devices, including cell phones, to keep your online activity private.

- ✓ **Microsoft Edge: Best for battery life**

Compatibility issues for older Windows machines Microsoft Edge comes standard with computers running the Windows 10 operating system, but it also works on both Android and iOS cell phones. It isn't, however, compatible with older Windows versions. It's much leaner and faster than Internet Explorer, which it replaces. In some respects it's also a better proposition than Chrome or Firefox. That's because Edge tends to use less memory (RAM) so it will feel faster on older computers and tends to use less power, which is important on a laptop. The trade-off is that it doesn't have the wealth of extensions or apps you'll find with the those other browsers.

When we tested Edge's security, it not only warned of phishing schemes and other dangerous websites, but it also blocked malware files from infecting out test devices. Microsoft Edge includes Notes, a tool that lets you highlight works or passages on any webpage and save them to read later.

You can add icons to the toolbar that link you to frequently visited websites and use the URL field to search the web. Edge has sync capabilities so you can access your bookmarks and search history across all your devices. Microsoft is one of the few internet browser developers that offers telephone support if you are having difficulties with its program.

- ✓ **Safari: Best for Macs**

Safari is one of the best choices for Mac devices because it is designed specifically for Apple's machines. It connects quickly and loads full sites faster than any macOS-compatible browser we tested.

Safari takes a moment to learn if you're not already familiar with Mac computers, and you can't customize this browser with toolbars, but you still get tabbed browsing like Firefox and Chrome offer. Safari lets you tag favorite sites and has a reading list where you can save articles or

parts of websites to read later. While you're reading an article, Safari has a tool that pushes ads and other distractions aside so you can read without unrelated text or images breaking in.

This browser is the default for iPhones and iPads, and it syncs through your iCloud account, so any changes you make on one device will be available on any device connected to your account. When we tested its default security settings, Safari warned us of malicious websites that had phishing schemes or dangerous links on them. But it didn't stop malicious downloads, so we had to depend on a Mac antivirus program to gather these threats during the download process.

This is one of the few browsers that has live support. It also has great online resources, like tutorials and searchable FAQs, so you can find answers on your own.

✓ **Opera: Good all-rounder**

Opera is decently fast, about on par with Firefox and Chrome when it comes to initial startup, site navigation and page loading. It's compatible with both Windows and Mac computers, and works on iOS and Android mobile devices. The URL bar doubles as a search bar, and it has stacking, which means you can drag and drop open tabs in the order you want them.

1.4. Setting up Internet Option

- **Configuring Home page**

A home page is generally the main page a visitor navigating to a website from a web search engine will see, and it may also serve as a landing page to attract visitors.

The home page is used to facilitate navigation to other pages on the site by providing links to prioritized and recent articles and pages, and possibly a search box. For example, a news website may present headlines and first paragraphs of top stories, with links to full articles, in a dynamic web page that reflects the popularity and recentness of stories. Meanwhile, other websites use the home page to attract users to create an account. Once they are logged in, the home page may be redirected to their profile page. This may in turn be referred to as the "personal home page".

A website may have multiple home pages, although most have one. Wikipedia, for example, has a home page at wikipedia.org, as well as language-specific home pages, such as en.wikipedia.org and de.wikipedia.org.

- **Configuring location of temporary files**

Temporary Internet Files are a folder on Microsoft Windows which serves as the browser cache for Internet Explorer to cache pages and other multimedia content, such as video and audio files, from websites visited by the user. This allows such websites to load more quickly the next time they are visited.

Each time a user visits a website using Microsoft Internet Explorer, files downloaded with each web page (including HTML and Javascript code) are saved to the Temporary Internet Files folder, creating a web cache of the web page on the local computer's hard disk drive, or other form of digital data storage. The next time the user visits the cached website, only changed content needs to be downloaded from the Internet; the unchanged data is available in the cache.

Despite the name 'temporary', the cache of a website remains stored on the hard disk until the user manually clears the cache, the cache expires or if the cache is full. This is often regarded as a privacy issue, because anyone with access to the computer can view the cache. The contents of the folder are indexed using an index.dat file, a form of database.

The Temporary Internet Files cache can be useful in certain situations. For example, if no Internet connection is available, previously cached websites are still available offline. Certain online media files (such as embedded Flash movies) are not easily accessed directly through Internet Explorer, but are automatically saved into the cache after viewing them. Depending on the type of website and how often it is updated, the cached data may not reflect the online version of the website. The cache is also useful for police to collect forensic evidence.

The cache can be cleared by using Internet Options within the Internet Explorer interface, but this method is subject to deletion privacy issues. Many alternative tools exist to erase the data instead.

Configuring privacy an security level

Optimizing your browser’s settings is a critical step in using the Internet securely and privately. Today’s popular browsers include built-in security features, but users often fail to optimize their browser’s security settings on installation. Failing to correctly set up your browser’s security features can put you at a higher risk for malware infections and malicious attacks. This installation of our “Cybersecurity 101” series provides our tips for securing several of today’s most popular browsers, including Google Chrome, Mozilla Firefox, and Microsoft Internet Explorer. While it is impossible to guarantee complete protection from cyber threats, following these tips will greatly increase the security of your web browser.

Ref. web1.keira-h.schools.nsw.edu.au/Faculties/IT/

Self Check–1	Written Test

Name: _____ Date: _____

Time started: _____ Time finished: _____

Directions: **Answer all the questions listed below.**

1. _____ is means of connecting a computer to any other computer anywhere in the world via dedicated routers and servers

   A. Browser soft wares C. Computer system

   B. Internet D. Search engines

2. A company which provides users with an access to the Internet is

   A. Google C. Internet service Provider

   B. Yahoo D. home page

3. A reference in a document to another section of the document or to another document is termed as

   A. Temporary files C. Internet

   B. Hyperlink D. World Wide Web

4. _____ is used to refer to the page that is the default page of any website

   A. Web page C. Home Page

   B. Web site D. HTTP

5. A collection of interlinked documents that are accessible over the Internet is:

   A. Internet Security C. World Wide Web

   B. Mozilla fire fox D. Arpanet

Note: **Satisfactory rating - 3 points, Unsatisfactory - below 3 points**

You can ask you teacher for the answer key

Information Sheet-2	Adjusting display/view mode

2.1. Introduction

In recent versions, Windows Internet Explorer has dramatically improved support for established and emerging industry standards, such as HTML5, Cascading Style Sheets (CSS), Level 3 (CSS3), and Scalable Vector Graphics (SVG). By default, Internet Explorer properly displays WebPages designed to support these standards. Because some of these standards are still evolving, older websites may not fully support them. In addition, later versions of certain standards specify different behaviors than earlier versions of the same standard.

As a result, websites designed to support the earlier versions of these standards may display differently when viewed with web browsers designed to support current versions of the standards, such as Internet Explorer. In order to help such websites display correctly, Internet Explorer supports a display mode called *Compatibility View*, which displays web pages as if they were viewed by an earlier version of the browser.

Ref.

- *Vincentas (11 July 2013).* "Grayware in SpyWareLoop.com"*. Spyware Loop. Archived from* the original *on 15 July 2014*. Retrieved 28 July 2013*.*
- web1.keira-h.schools.nsw.edu.au/Faculties/IT/

Self Check–2	Written Test

Name: _____ Date: _____

Time started: _____ Time finished: _____

Directions: **Answer all the questions listed below.**

I. Write True if the statement is Correct and false if the statement is incorrect

1. By default, Internet Explorer properly displays WebPages designed to support HTML5, Cascading Style Sheets (CSS) standards.
2. Internet Explorer View mode is displays web pages if they were viewed by an earlier version of the browser.
3. HTML5, Cascading Style Sheets (CSS) standards are still not fully support by older websites.

Note: **Satisfactory rating - 3 points, Unsatisfactory - below 3 points**

You can ask you teacher for the answer key

Information Sheet-3	Modifying Toolbars

3.1. Introduction to toolbars

A browser toolbar is a toolbar that resides within a browser's window. All major web browsers provide support to browser toolbar development as a way to extend the browser's GUI and functionality. Browser toolbars are considered to be a particular kind of browser extensions that present a toolbar. Browser toolbars are specific to each browser, which means that a toolbar working on a browser does not work on another one. All browser toolbars must be installed in the corresponding browser before they can be used, and require updates when new versions are released.

Many high-profile browser toolbars released over the years have been fraught with problems, either intentionally as malware or injected with computer viruses or due to poor or conflicting programming when considering multiple toolbars being included on the single browser.

Many unscrupulous companies use software bundling to force users downloading one program to also install a browser toolbar, some of which invade the user's privacy by tracking their web history and search history online. Many antivirus companies refer to these programs as grayware or Potentially Unwanted Programs (PUPs).

Developing a toolbar

The programming language and development tools behind a browser toolbar vary from one browser to another.

In Internet Explorer 5 or later toolbars may be created as browser extensions written in C# or C++. More specifically, it is possible to create up to three different kinds of toolbars (custom explorer bars, tool bands and desk bands) and to combine them with browser helper objects in order to provide added functionality.

In Firefox toolbars can be created as add-ons that contribute to the GUI by extending the browser with XUL (support for XUL was removed in Firefox version 57). The logic behind the toolbar is written in JavaScript running under expanded privileges. Mozilla Jetpack can be used to simplify the development of add-ons for Firefox.

In Safari 5 or later toolbars can be created as extensions that add bars and buttons. The logic behind the toolbar is written in JavaScript with access to a special JavaScript API to interact with the Safari application and web content.

In Google Chrome 4 or later toolbars can be created as extensions that add browser actions to the browser window. The logic behind the toolbar is written in JavaScript with access to a special JavaScript API to interact with the Chrome application and web content. The privileges under which a Chrome extension runs are governed by a set of permissions.

In Opera 11 or later toolbars can be created as extensions that add buttons to the browser window. The logic behind the toolbar is written in JavaScript with access to a special JavaScript API to interact with the Opera application and web content.

In Firefox, Chrome, Safari and Opera toolbar styling is done though CSS.

Native vs. injected toolbars

Some major browsers (Internet Explorer and Firefox) enable the creation of native toolbars i.e., toolbars which are directly inserted in the browser window. Examples of native toolbars are Google Toolbar and Stumble upon Toolbar. Native toolbars use browser-specific code to create the same toolbar for each different browser version.

Some toolbar developers use a different approach and make the browser extension inject a JavaScript file in every web page visited by the user. All major browsers support injected toolbars. The code in this file inserts the toolbar as a part of the DOM in every web page. Injected toolbars use essentially the same JavaScript code to draw the toolbar for each different browser version.

Each approach has advantages and disadvantages for the different stakeholders.

From the user's perspective:

Native toolbars present faster load times, since injected toolbars must wait for the DOM to be created in order to insert the toolbar in it.

Injected toolbars require less frequent updates because part of their code is dynamically downloaded in the JavaScript file that draws the toolbar.

From the developer's perspective:

Injected toolbars allow for shorter development times since the JavaScript code that creates the toolbar may be written once for all browsers.

Injected toolbars allow for an easier toolbar update policy, since changes that are made in the injected JavaScript code do not require releasing a new toolbar version.

From the toolbar owner's perspective:

Injected toolbars consume requests to download the JavaScript code that inserts the toolbar in every page, while native toolbars consume no such requests.

Cross-browser toolbar development

This Section contains content that is written like an advertisement. Please help improve it by removing promotional content and inappropriate external links, and by adding encyclopedic content written from a neutral point of view. (October 2018) (Learn how and when to remove this template message)

Another way to simplify the task of developing a toolbar for different browsers is to rely on a cross-browser extension development framework. Some of the most important frameworks are listed below:

Toolbar Studio supports IE, Firefox. This is an IDE that allows to develop toolbars via a visual editor.

Neobars supports Chrome, Firefox, IE, Safari and Opera. This is an online web constructor for cross-browser extensions. Multiple widgets like Weather, RSS, YouTube, Twitter and Facebook components are available. The platform is free to use.

Ref.

1. *Larry Seltzer (2009-02-10). "Enough with the Browser Toolbars Already". eWeek. Retrieved 2014-02-26.*
2. *Vincentas (11 July 2013). "Grayware in SpyWareLoop.com". Spyware Loop. Archived from the original on 15 July 2014. Retrieved 28 July 2013.*
3. *"Threat Encyclopedia – Generic Grayware". Trend Micro. Retrieved 27 November 2012.*
4. *"Rating the best anti-malware solutions". Arstechnica. 2009-12-15. Retrieved 28 January 2014.*

Self Check–3	Written Test

Name: _____ Date: _____

Time started: _____ Time finished: _____

Directions: **Answer all the questions listed below.**

I. Write True if the statement is correct and False if the statement incorrect

1. The programming language and development tools behind a browser toolbar are not vary from one browser to another
2. Injected toolbars require less frequent updates
3. Native toolbars present faster load times.
4. A browser toolbar is a toolbar that resides within a browser's window.
5. All major web browsers provide support to browser toolbar development as a way to extend the browser's CLI and functionality.

Note: **Satisfactory rating - 3 points, Unsatisfactory - below 3 points**

You can ask you teacher for the answer key

Information Sheet-4	Accessing and retrieving data from particular site

3.1. Accessing and Retrieving Site Data

For most people nowadays, using the internet involves accessing information or entertainment, viewing products and services, or using social media platforms to keep in touch with friends and acquaintances. It may seem that visiting a webpage merely involves entering the URL in the address bar, but that's just the start of a more complicated process. In a split second the browser makes contact with globally distributed web servers, requests stored data packages, and then assemble the webpage from the information contained in the packages. Read on to find out how this process works and which steps are taken.

- **From URL to IP address**

The easiest way to access a website is to write the desired address into the address bar located in the browser. This address is known as a Uniform Resource Locator (URL), and every webpage can be reached with its own individual URL (web address). A URL is made up of several sections; all of which have their own functions. Here is a generic example of a webpage URL:

Protocol	Third-level domain	Second-level domain	Top-level domain	(Path)	(File)
http://	www.	Example domain	.com	/directory/index.html	

The World Wide Web (WWW) is a system of electronically stored hypertext documents. The hypertext transfer protocol (HTTP) is used in the World Wide Web in order to transfer webpage data from the web server to the browser. In addition to HTTP, there's also an encrypted version of the protocol: Hypertext Transfer Protocol Secure (HTTPS). The HTTP protocol header is followed by the hostname, which consists of a second-level and top-level domain (in this order). In the web, we usually see "www" as third-level domain, but there are other sub domains. If a URL points to a specific directory or file, the relevant information will be placed after the hostname.

URLs are generally comprised of letters, meaning that people can easily remember them. Computers, on the other hand, work with combinations of numbers (known as IP addresses) to find a server on the internet. An additional step is required in order to access content from the web browser. This step requires translating a webpage's URL into the corresponding IP address. The task is carried out by DNS servers, which are responsible for managing the Domain Name System.

- **DNS server: a directory for IP addresses**

When a web address is entered into the search bar of the browser, the browser looks for the requested domain in its cache. If it's not there, it requests the operating system's DNS server to find the required IP address. A

DNS server is liable for the name resolution. The DNS server that is to be requested can be configured in the operating system as well as in the router. Per default, the internet access provider sets the address of its own DNS server there. Since requesting the domain name system takes some time, the IP addresses of sites that have already been visited are usually stored in the operating system's or the browser's DNS cache. This cache keeps IP addresses at hand for future visits to the website. This lightens the load of the DNS server and speeds up the webpage's loading time.

- **The router as a link between computer and server**

The router is the interface between the internet and home network. It requests data from the internet and distributes it to networking devices such as desktop computers, laptops, and tablets. The router is required as a link since the devices in the home network communicate with each other using local IP addresses, while outwardly sharing the router's public IP address. The network addresses are then translated with a process known as Network Address Translation (NAT). With modern IPv6 internet connections, translations via NAT generally aren't needed since every device in the network is allocated a public IP address.

- **Data exchange via HTTP**

When the IP address of the chosen webpage is identified, the browser requests the relevant data for the page from the appropriate web server. This request takes place via HTTP in the form of a data packet, which contains all the information the web server needs in order to deliver the webpage data. The browser communicates the IP address of the chosen webpage, and provides information on the operating system, itself, and the device on which the webpage should be displayed. The router adds its own public IP address as sender and forwards the packet to the public internet. The web server processes the information and transmits an HTTP status code. Should the request be successful, the server sends a data packet to the web browser with all the information required for the page. If the server can't find the webpage at the requested address, it either sends a 404 error code (webpage not found) or sends the visitor to the new URL via redirect if it's known.

- **Page rendering in web browsers**

Incoming data packets from the internet are finally forwarded from the router to the computer on which the webpage is being accessed. The web browser then takes on the task of analyzing the data packets. Web pages generally comprise of **HTML, CSS, and JavaScript files**, whose lines of code contain detailed information about how the webpage should be presented. While HTML documents define the structure and controls of a webpage, the design information is specified in Cascading Style Sheets (CSS files). Elements that help user interaction on the webpage are usually implemented with JavaScript. The rendering engine of the web browser determines how the code is interpreted. Web pages can have a different appearance depending on the web browser used. Each browser has a **cache** in which data is temporarily stored when a webpage is accessed. This means that, when a webpage is re-visited, not all the data needs to be requested from the web server. The web browser simply retrieves the files that have changed since the last visit meaning that the website doesn't take as long to access.

Ref. *"Threat Encyclopedia – Generic Grayware". Trend Micro. Retrieved 27 November 2012.*

"Rating the best anti-malware solutions". Arstechnica. 2009-12-15. Retrieved 28 January 2014.

Self Check–4	**Written Test**

Name: _____ Date: _____

Time started: _____ Time finished: _____

Directions: **Answer all the questions listed below.**

1. The easiest way to access a website is to write the desired address into the address bar
   A. True B. False
2. The World Wide Web (WWW) is:
   A. system of electronically stored hypertext documents
   B. search engines
   C. acts as browser soft ware
   D. All
3. Web information are stored on:
   A. Internet C. Web browsers
   B. Web server D. All
4. The HTTP protocol header is followed by:
   A. Extension name C. Company name
   B. Host name D. All
5. The DNS server that is to be requested can be configured in:
   A. The operating system C. the browser
   B. The router D. A and B

Note: **Satisfactory rating - 3 points, Unsatisfactory - below 3 points**

You can ask you teacher for the answer key

Information Sheet-5	Loading image

4.1. Load /do not load images depending on modem speed, computer and Browser capabilities

In accessing information on the Internet you may have to consider whether to load or not load images. Understanding the capabilities of your modem, computer and browser will help you to make an informed decision.

- **Modem Speed**

The latest modems on the market would normally be installed to run at the fastest speed possible, for example 115200 bits per second. Having a fast modem connected to your computer will download images quickly. If a slower speed modem is connected to your computer, then images will be downloaded at a much slower rate. Being aware of your modem's capabilities will help you decide on whether images should be loaded or not loaded. Time should also be considered when accessing the Internet. Even a fast modem cannot take into consideration a country's business hours, or a 'high activity period, for example, after school hours or early evening. Do not forget to consider these points if you are having difficulty in browsing the web site you require.

The bandwidth of your Internet connection is dependent on the speed of your modem. If the bandwidth is small it will not be able to download images very quickly. The file format of any image saved on the computer will take up much more memory area than text. Hence, you must make sure that you have adequate storage area for image file and the bandwidth is large enough to transfer the image file.

- **Computer speed and capacity**

The speed and capacity of your computer also affects the speed at which images are loaded. If the computer's speed is slow and the capacity minimal, it may be better to turn off multimedia features such as pictures, sounds and videos in order to speed up the delivery and display of web page information.

To display a web page without graphics, select Tools from the menu bar and choose Internet Options. From the Internet Options dialogue box there are six tabbed sections. Select the Advanced tabbed section.

- **Browser Capabilities**

To display web page details as quickly as possible, consideration should be given to the types of browsers available. Browsers such as Microsoft Internet Explorer and Netscape Navigator are referred to as graphical browsers as they are able to display graphics, colors and multimedia features.

When a web site is visited, the details of that web page are stored in the browser's cache. Web pages stored to be read offline are also stored in the cache. Microsoft Internet Explorer's cache is labeled 'Temporary Internet Files' whereas Netscape Navigator stores its cache in the program folder. This speeds up the display of pages that are visited frequently because the Web page details are accessed from the cache instead of from the web. It is possible to increase the size of the cache, but doing this will reduce the space available for other files on your computer. It is also possible to delete files from the 'Temporary Internet files' folder to free up space within the cache. However, deleting files could result in delay if those web pages are required at a later date, as they can no longer be accessed from the cache and they will have to be downloaded again.

Ref

"Threat Encyclopedia – Generic Grayware". Trend Micro. Retrieved 27 November 2012.

"Rating the best anti-malware solutions". Arstechnica. 2009-12-15. Retrieved 28 January 2014.

Self Check–5	Written Test

Name: _____ Date: _____

Time started: _____ Time finished: _____

Directions: **Answer all the questions listed below.**

1. The bandwidth/speed of your Internet connection is depends on :
   A. The speed of your modem C. Computer speed and capacity
   B. Type of browser D. All
2. When a web site is visited, the details of that web page are stored in the
   A. browser's cache C. Browser soft ware
   B. local C: D. All
3. in order to speed up the delivery and display of web page information which solution is better
   A. turn off multimedia features C. all
   B. Turn off the computer D. None
4. Microsoft Internet Explorer and Google chrome are referred to as:
   A. graphical browsers C. Browser soft wares
   B. Mozilla fire fox D. All

Note: **Satisfactory rating - 3 points, Unsatisfactory - below 3 points**

You can ask you teacher for the answer key

Information Sheet-6	Opening URL to obtain data and browser link

5.1. Uniform Resource Locator (URL)

Each website is located at a unique global address called a Uniform Resource Locator (URL). When you know the address of a web site it is much easier to locate. Referencing the Uniform Resource Locator URL allows you to jump directly to that page at that URL regardless of where you currently are on the web. All web browsers let you jump directly to a Uniform Resource Locator (URL) a unique address for Internet resources that are available through a web browser, including files or directories.

URL's specify three pieces of information needed to retrieve a document:

- the protocol to be used
- the server address and port to which to connect
- the path to the information

The format for a URL is: Protocol://server-name: port/path. For example, http://home.netscape.com/welcome/html

When a web site is displayed on the screen, it is possible to access the links that are contained within that site. Clicking on a link (or tabbing to the link and pressing Enter) will take you to another section of the web site, a Web page related to the site or even to a different web site.

A link- is a connection from one web resource to another. Although a simple concept, the link has been one of the primary forces driving the success of the web.

A link has two ends – called anchors-- and a direction. The link starts at the "source" anchor and points to the "destination" anchor, which may be any Web resource (e.g., an image, a video clip, a sound bite, a program, an HTML document, an element within an HTML document, etc.). After you have successfully identified the URL you will be able to access the links provided by the URL.

Figure 5.1 **uniform Resource Locator**

Self Check–6	Written Test

Name: _____ Date: _____

Time started: _____ Time finished: _____

Directions: **Answer all the questions listed below.**

1. Each website is located at a unique global address called
   A. Uniform Resource Locator (URL
   B. HTTP
   C. Hyperlinks
   D. Web site
2. _____ is a connection from one web resource to another
   A. Link
   B. Uniform Resource locator
   C. Internet
   D. E- Mail
3. three pieces of information needed to retrieve a document used by URL is:
   A. the protocol to be used
   B. the server address and port to which to connect
   C. the path to the information
   D. All

Note: **Satisfactory rating - 3 points, Unsatisfactory - below 3 points**

You can ask you teacher for the answer key

Information Sheet-7	Deleting cookies and history of internet browser

6.1. Deleting Cookies and Browsing History

A **cookie**, also known as an **HTTP cookie**, **web cookie**, or **browser cookie**, is used for an origin website to send state information to a user's browser and for the browser to return the state information to the origin site. The state information can be used for authentication, identification of a user session, user's preferences, shopping cart contents, or anything else that can be accomplished through storing text data.

Cookies are not software. They cannot be programmed, cannot carry viruses, and cannot install malware on the host computer. However, they can be used by spyware to track user's browsing activities – a major privacy concern that prompted European and US law makers to take action. Cookies could also be stolen by hackers to gain access to a victim's web account, thus, the need to delete cookies.

Ref.

web1.keira-h.schools.nsw.edu.au/Faculties/IT/

Self Check–7	Written Test

Name: _____ Date: _____

Time started: _____ Time finished: _____

Directions: **Answer all the questions listed below.**

I. Write True if the statement is Correct and False if the statement is incorrect

1. A cookie, also known as browser cookie
2. Cookies are not software
3. Cookies can be programmed, can carry viruses
4. The need to delete cookies is they could be stolen by hackers to gain access to a victim's web account.
5. The main function of cookies is used for an origin website to send state information to a user's browser and for the browser to return the state information to the origin site.

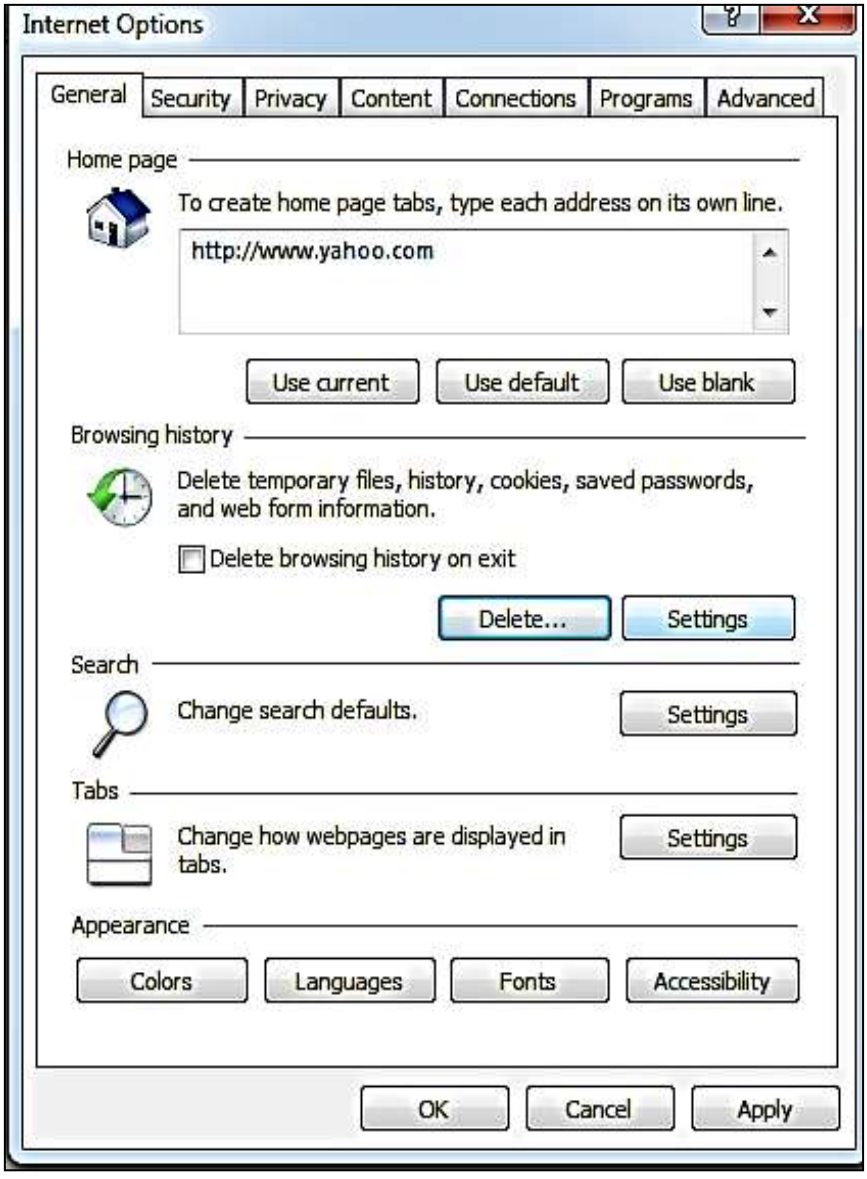
Note: **Satisfactory rating - 3 points, Unsatisfactory - below 3 points**

You can ask you teacher for the answer key

Operation Sheet-1	Procedures to setting up Home Page

1.1. To change your browser Home Page Follow the following steps

1. On your browser, go to tools, then options
2. On the Internet Options, click on the General tab
3. Type the address that you want to make your home page
4. then click Apply
5. then click OK



Operation Sheet-2	Procedures to Adjusting Display/View Mode

2.1. Enable and Disable Chrome Full-screen Mode in macOS

For Chrome on macOS, at the top-left corner of Chrome, select the **green circle** to go to full-screen mode, and select it again to return to the full-size screen.

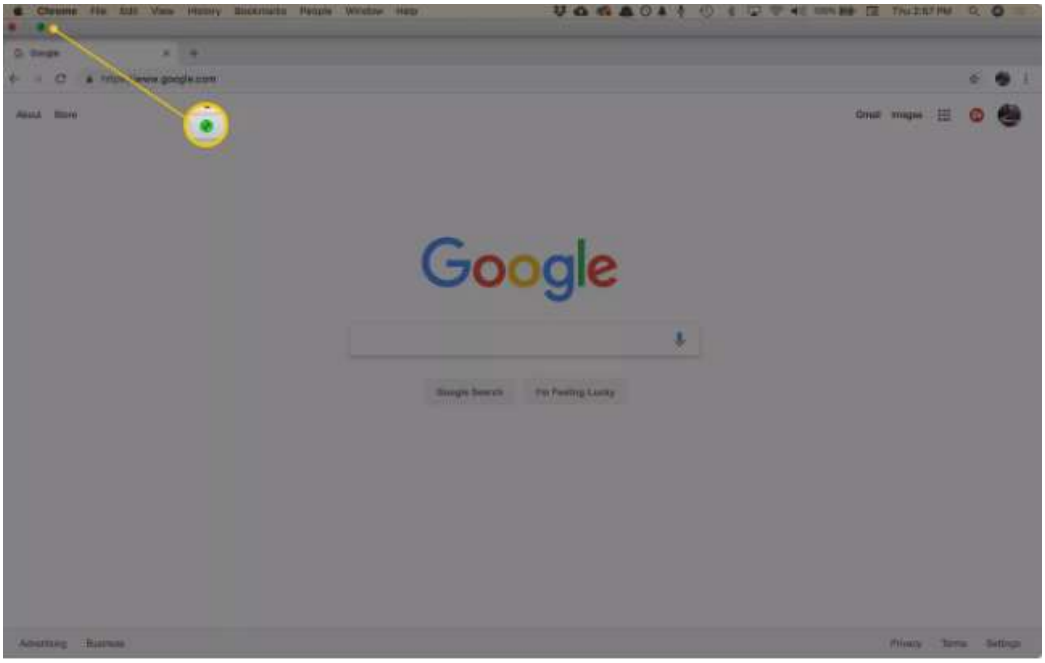


Figure 2.1. ***Enabling and disabling chrome full screen***

There are two other options to activate full-screen mode:

- From the menu bar select **View** > **Enter Full Screen**.
- Use the keyboard shortcut **Ctrl+Command+F**.

To exit full-screen mode, repeat this process.

Enable and Disable Full-screen Mode in Chrome in Windows

On a Windows computer, access the full-screen toggle through Chrome's main menu.

1. In the top-right corner of Chrome, select the **menu** (three-dot) icon.

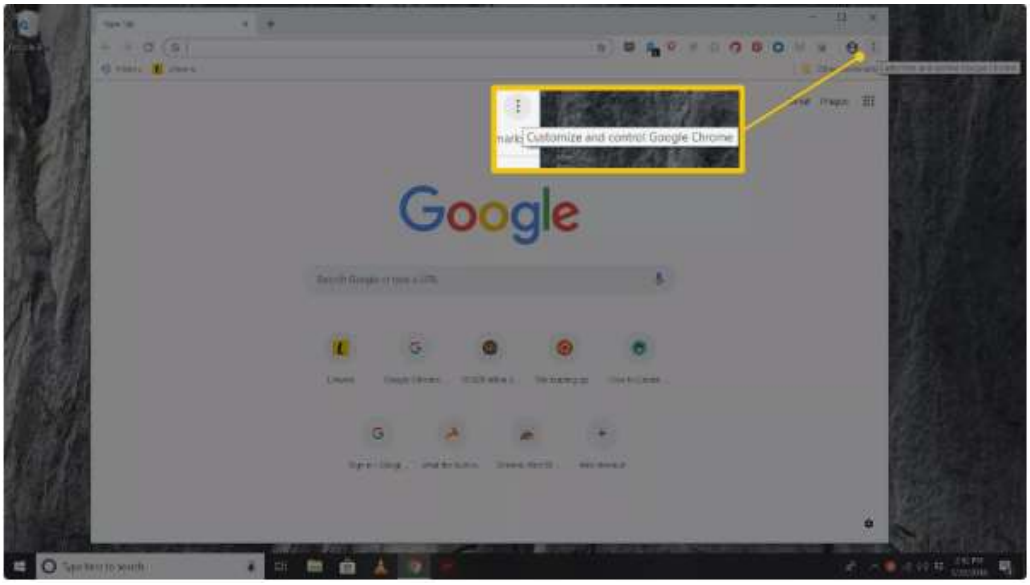


Figure 2.2 selecting Menu

2. From the menu choose **Zoom**. Then, to the far right of the Zoom buttons, select the **square** icon.

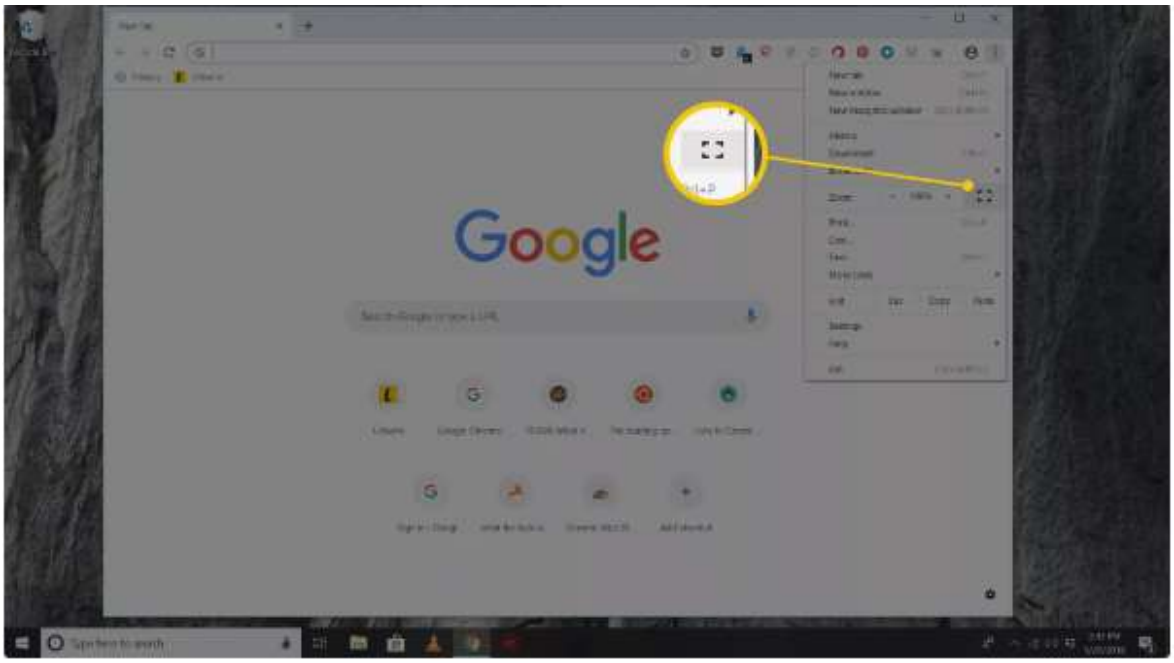


Figure 2.3. **Selecting Zoom**

3. To return to standard view, press **F11** or hover near the top of the screen and select the **+** button that appears.

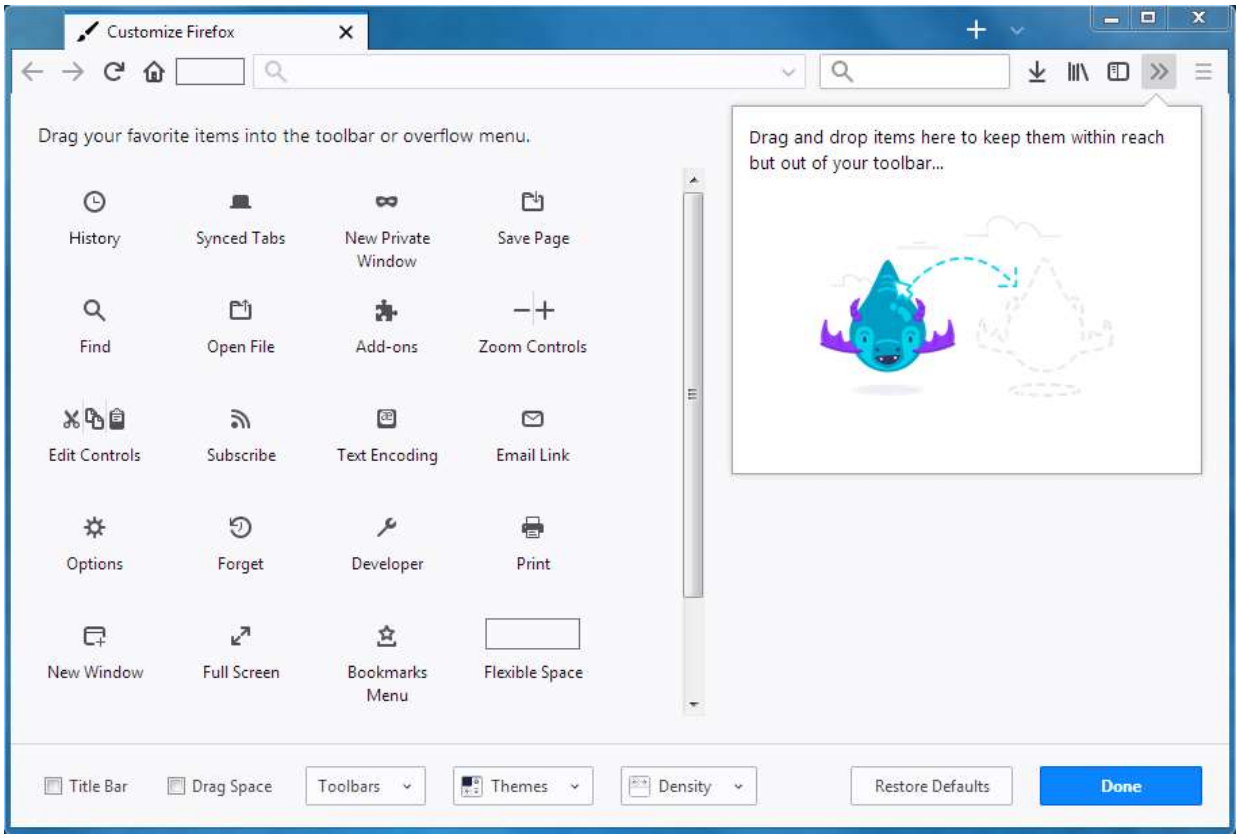
Operation Sheet-3	Procedures to Modifying Toolbars

3.1. Steps required to Modifying browser toolbars

3.1.1. Customize the overflow menu or the toolbar

You can change the items that appear in the overflow menu or your toolbar.

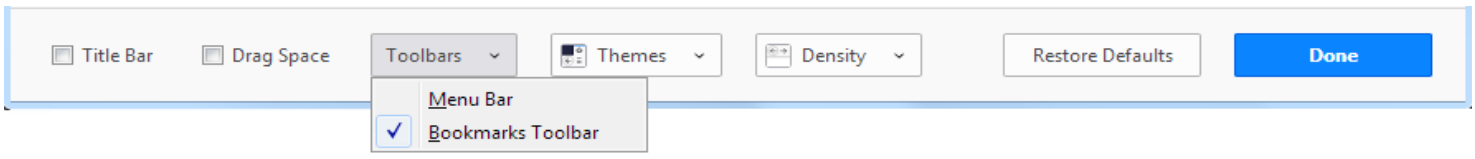
1. Click the menu button ☰ and choose Customize….



2. When you are Finish, click the Done button.

3.1.1. Turn on the Title bar, Menu bar or Bookmarks toolbar

1. Click the menu button ☰ and choose Customize….
   - **To turn on the Title bar**: Put a check mark next to **Title Bar** in the lower left.
   - **To turn on the Menu bar or Bookmarks toolbar:** Click the Toolbars dropdown menu at the bottom of the screen and choose the toolbars you want to display.



2. Click the Done button.

Operation Sheet-4	Procedures to Accessing and Retrieving Data

4.1. Using the address bar

The address bar auto complete feature lets you search everything on it: bookmarks, history or search engines, or enter a specific web address, all in one field. Simply type into the field above your toolbar and choose from your history, bookmarks, and multiple search engines or press the Enter key to search using your default search engine.

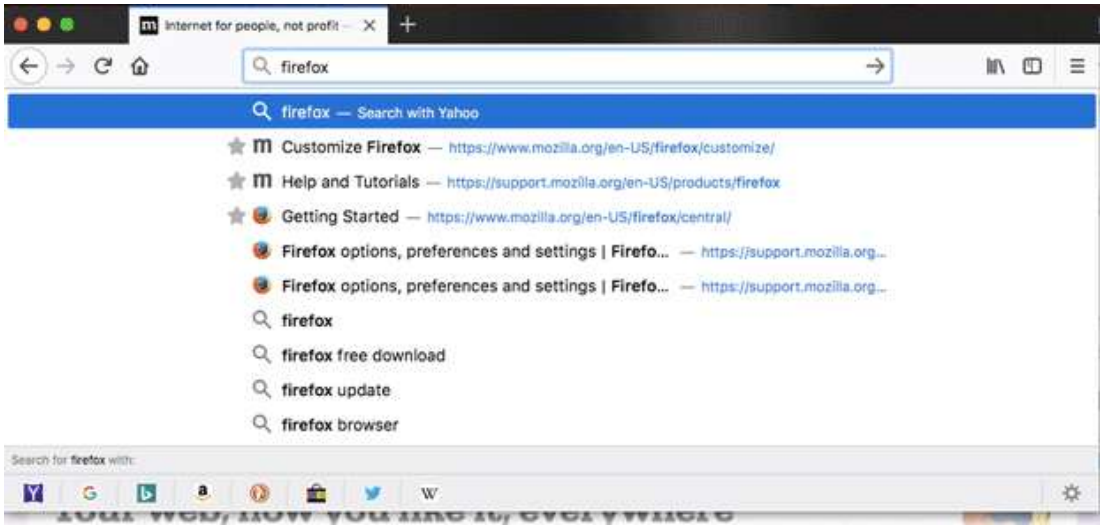
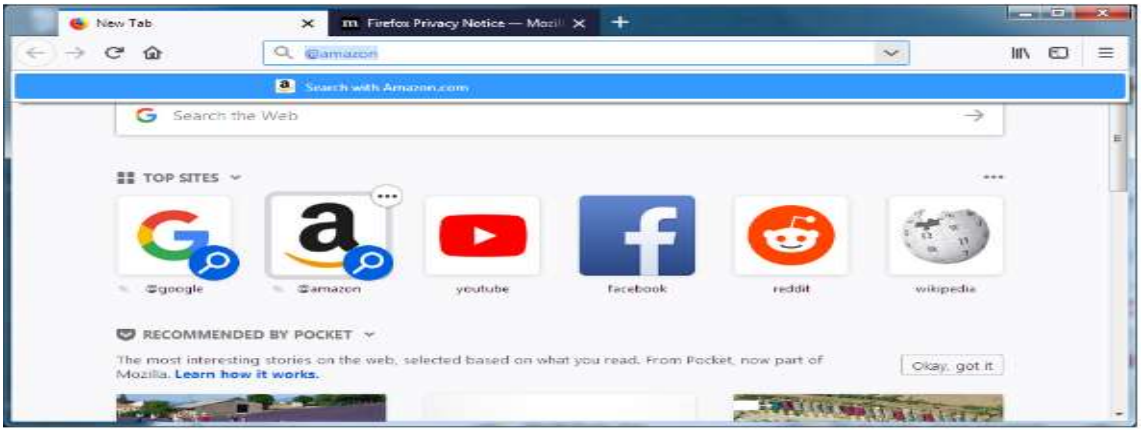


Fig. 4.1 Searching search engine using address bar

You can also type into the search bar on your toolbar or on the New Tab page. Firefox can show you popular searches for your default search engine as you're typing. See Search suggestions in Firefox. OR you can use search engine short cuts



Fi.4.2. Search engine

Operation Sheet-5	Procedures to Loading Image

5.1. Upload a new file

To upload a new file:

1. In the link editor, click  in the *URL* box.
2. Click the **File** tab.
3. Click **Upload File** to select a file from your computer, or drag a file into the **Upload File** area.
4. After it uploads, select the file from the list.
5. Click **Save**.

5.2. Link to an existing file

To link to a file you uploaded previously:

1. In the link editor, click  in the *URL* box.
2. Click the **File** tab.
3. All files uploaded to your site appear above the **Upload File** area. Click the file in the list or search for it to attach it to the link.
4. Click **Save**.

Operation Sheet-6	Procedures to opening URL

6.1. To Open URL Follow the following Steps

1. Open one of your favorite browser
2. Write the address you want to access on the Address Bar

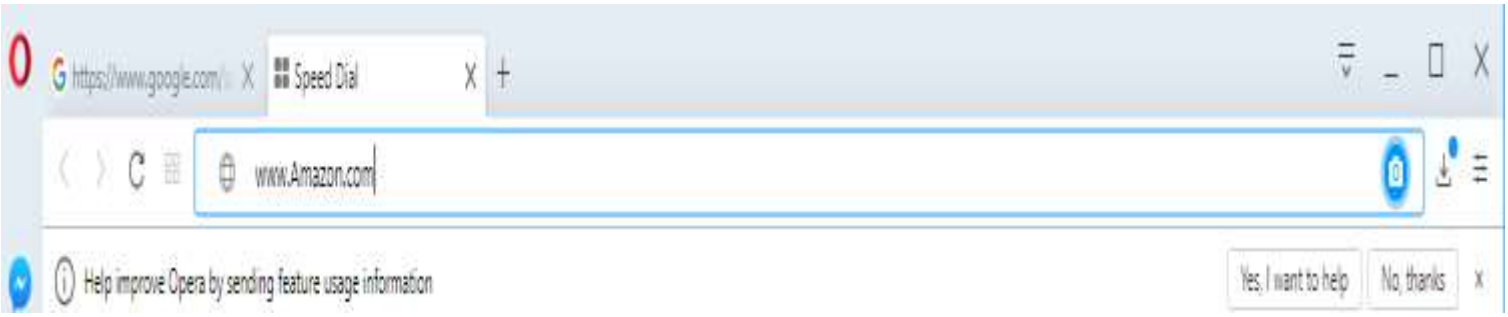


Fig. 6.1. Opening URL

3. Press Enter from key board or

4. Click Go

Operation Sheet-7	Steps to Deleting Cookies and History

To Delete Cookies and History you have to follow the following procedure

In Chrome

1. On your computer, open Chrome.
2. At the top right, click more .
3. Click **more tools** › **Clear browsing data**.
4. At the top, choose a time range. To delete everything, select **All time**.
5. Next to "Cookies and other site data" and "Cached images and files," check the boxes.
6. Click **Clear data**.

LAP Test	Practical Demonstration

Name: _____ Date: _____

Time started: _____ Time finished: _____

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within --- hour.

Task 1. Change The home page of your browser

Task 2. Adjust your browser display/view Mode

Task 3. Modify your Browser Toolbar

Task 4. Using the required Address Access some data over the Internet

Task 5. Load Image over the Internet

Task 6. Open Url and search different sites

Task 7. Delete Cookies and History