

SOS POLITICAL SCIENCE AND PUBLIC ADMINISTRATION

MBA FA 401

SUBJECT NAME: COMPUTER APPLICATIONS IN FINANCIAL ADMINISTRATION

UNIT-V

TOPIC NAME: DIFFERENT BROWERS

A web browser (commonly referred to as a browser) is a software application for accessing information on the World Wide Web. When a user requests a particular website, the web browser retrieves the necessary content from a web server and then displays the resulting web page on the user's device.

A web browser is not the same thing as a search engine, though the two are often confused. For a user, a search engine is just a website, such as Google Search, Bing, or DuckDuckGo, that stores searchable data about other websites. However, to connect to a website's server and display its web pages, a user must have a web browser installed.

Web browsers are used on a range of devices, including desktops, laptops, tablets, and Smart phones . In 2019, an estimated 4.3 billion people used a browser. The most used browser is Google Chrome, with a 64% global market share on all devices, followed by Safari with 17%.

HISTORY:

The first web browser, called Worldwide Web, was created in 1990 by Sir Tim Berners-Lee. He then recruited Nicola Pellow to write the Line Mode Browser, which displayed web pages on dumb terminals; it was released in 1991.

1993 was a landmark year with the release of Mosaic, credited as "the world's first popular browser". Its innovative graphical interface made the World Wide Web system easy to use and thus more accessible to the average person. This, in turn, sparked the Internet boom of the 1990s, when the Web grew at a very rapid rate. Marc Andreessen, the leader of the Mosaic team, soon started his own company, Netscape, which released the Mosaic-influenced Netscape Navigator in 1994. Navigator quickly became the most popular browser.

Microsoft debuted Internet Explorer in 1995, leading to a browser war with Netscape. Microsoft was able to gain a dominant position for two reasons: it bundled Internet Explorer with its popular Microsoft Windows operating

system and did so as freeware with no restrictions on usage. Eventually the market share of Internet Explorer peaked at over 95% in 2002.

In 1998, Netscape launched what would become the Mozilla Foundation to create a new browser using the open source software model. This work evolved into Firefox, first released by Mozilla in 2004. Firefox reached a 28% market share in 2011.

Apple released its Safari browser in 2003. It remains the dominant browser on Apple platforms, though it did not become popular elsewhere.

The last major entrant to the browser market was Google. Its Chrome browser, which debuted in 2008, steadily took market share from Internet Explorer and became the most popular browser in 2012. Chrome has remained dominant ever since.

In terms of technology, browsers have greatly expanded their HTML, CSS, JavaScript, and multimedia capabilities since the 1990s. One reason has been to enable more sophisticated websites, such as web applications. Another factor is the significant increase of broadband connectivity, which enables people to access data-intensive web content, such as YouTube streaming, that was not possible during the era of dial-up modems.

FUNCTIONS:

The main functions of web browser is to fetch or retrieve informative resources from World Wide Web to the client/ user on demand, translate those files received from web server and display those content to the user and allow the client /user to access all other relevant resources & information via hyperlinks.

When the user inputs any URL (uniform resource locator) in the web browser, the user is navigated to that website by the browser quickly. Let us have a look on its processing. When user types any URL, for example <https://msatechnosoft.in>, the prefix of the URL decides how to retrieve it. The URL prefixes that the web browser is not able to handle directly are sent to related application. Like default email app is responsible to handle <mailto:> URL prefix. Following table gives an idea about some of the common URL prefixes:

URL PRIFIX	URL INTERPITATION
http:	Hyper text transfer protocol
https:	Secured hyper text transfer protocol
ftp:	File transfer protocol
File:	Local file system

Plug-in are available on web browser that supports flash content and java applets to run smoothly in any device. Web browser allow users to interact with web pages and other dynamic content via hyperlinks that provides navigation facility i.e. to go to different locations by clicking on links that makes internet surfing easy.

DIFFERENT BROWSERS:

1. Internet Explorer.
2. Google Chrome.
3. Mozilla Firefox.
4. Safari.
5. Opera.
6. Konqueror.
7. Lynx.

INTERNET EXPLORER:



Internet Explorer (IE) is a product from software giant Microsoft. This is the most commonly used browser in the universe.

This was introduced in 1995 along with Windows 95 launch and it has passed Netscape popularity in 1998.

Internet Explorer (formerly Microsoft Internet Explorer and Windows Internet Explorer, commonly abbreviated IE or MSIE) is a series of graphical web browsers developed by Microsoft and included in the Microsoft Windows line of operating systems, starting in 1995. It was first released as part of the add-on package Plus! for Windows 95 that year. Later versions were available as free downloads, or in service packs, and included in the original equipment manufacturer (OEM) service releases of Windows 95 and later versions of Windows. The browser is discontinued, but still maintained.

Internet Explorer was once the most widely used web browser, attaining a peak of about 95% usage share by 2003. This came after Microsoft used bundling to win the first browser war against Netscape, which was the dominant browser in the 1990s. Its usage share has since declined with the launch of Firefox (2004) and Google Chrome (2008), and with the growing popularity of operating systems such as Android and iOS that do not support Internet Explorer.

FEATURES:

Internet Explorer has been designed to view a broad range of web pages and provide certain features within the operating system, including Microsoft Update. During the heyday of the browser wars, Internet Explorer superseded Netscape only when it caught up technologically to support the progressive features of the time.

1. Standards support:

Internet Explorer, using the Trident layout engine:

- Supports HTML 4.01, parts of HTML5, CSS Level 1, Level 2 and Level 3, XML 1.0, and DOM Level 1, with minor implementation gaps.
- Fully supports XSLT 1.0 as well as an obsolete Microsoft dialect of XSLT often referred to as WD-xsl, which was loosely based on the December 1998 W3C Working Draft of XSL. Support for XSLT 2.0 lies in the future: semi-official Microsoft bloggers have indicated that development is underway, but no dates have been announced.
- Almost full conformance to CSS 2.1 has been added in the Internet Explorer 8 release. The trident rendering engine in Internet Explorer 9 in 2011, scored highest in the official W3C conformance test suite for CSS 2.1 of all major browsers.

- Supports XHTML in Internet Explorer 9 (Trident version 5.0). Prior versions can render XHTML documents authored with HTML compatibility principles and served with a `text/html` MIME-type.
- Supports a subset of SVG in Internet Explorer 9 (Trident version 5.0), excluding SMIL, SVG fonts and filters.

Internet Explorer uses DOCTYPE sniffing to choose between standards mode and a "quirks mode" in which it deliberately mimicks nonstandard behaviors of old versions of MSIE for HTML and CSS rendering on screen (Internet Explorer always uses standards mode for printing). It also provides its own dialect of ECMA Script called JScript.

Internet Explorer was criticized by Tim Berners-Lee for its limited support for SVG, which is promoted by W3C.

2. Non-standard extensions:

Internet Explorer has introduced an array of proprietary extensions to many of the standards, including HTML, CSS, and the DOM. This has resulted in a number of web pages that appear broken in standards-compliant web browsers and has introduced the need for a "quirks mode" to allow for rendering improper elements meant for Internet Explorer in these other browsers.

Internet Explorer has introduced a number of extensions to the DOM that have been adopted by other browsers.

These include the inner HTML property, which provides access to the HTML string within an element, which was part of IE 5 and was standardized as part of HTML 5 roughly 15 years later after all other browsers implemented it for compatibility, the XML Http Request object, which allows the sending of HTTP request and receiving of HTTP response, and may be used to perform AJAX, and the design Mode attribute of the content Document object, which enables rich text editing of HTML documents. Some of these functionalities were not possible until the introduction of the W3C DOM methods. Its Ruby character extension to HTML is also accepted as a module in W3C XHTML 1.1, though it is not found in all versions of W3C HTML.

Microsoft submitted several other features of IE for consideration by the W3C for standardization. These include the 'behavior' CSS property, which connects the HTML elements with JScript behaviors (known as HTML Components, HTC); HTML+TIME profile, which adds timing and media synchronization support to HTML documents (similar to the W3C XHTML+SMIL), and the VML vector graphics file format. However, all were rejected, at least in their original forms; VML was subsequently combined with PGML (proposed

by Adobe and Sun), resulting in the W3C-approved SVG format, one of the few vector image formats being used on the web, which IE did not support until version 9.

Other non-standard behaviors include: support for vertical text, but in a syntax different from W3C CSS3 candidate recommendation, support for a variety of image effects and page transitions, which are not found in W3C CSS, support for obfuscated script code, in particular JScript. Encode, as well as support for embedding EOT fonts in web pages.

3. Favicons:

Support for favicons was first added in Internet Explorer 5.^[55] Internet Explorer supports favicons in PNG, static GIF and native Windows icon formats. In Windows Vista and later, Internet Explorer can display native Windows icons that have embedded PNG files.

4. Usability and accessibility:

Internet Explorer makes use of the accessibility framework provided in Windows. Internet Explorer is also a user interface for FTP, with operations similar to that of Windows Explorer. Pop-up blocking and tabbed browsing were added respectively in Internet Explorer 6 and Internet Explorer 7. Tabbed browsing can also be added to older versions by installing MSN Search Toolbar or Yahoo Toolbar.

5. Cache:

Main articles: Temporary Internet Files and Index.dat

Internet Explorer caches visited content in the Temporary Internet Files folder to allow quicker access (or offline access) to previously visited pages. The content is indexed in a database file, known as Index.dat. Multiple Index.dat files exist which index different content—visited content, web feeds, visited URLs, cookies, etc.

Prior to IE7, clearing the cache used to clear the index but the files themselves were not reliably removed, posing a potential security and privacy risk. In IE7 and later, when the cache is cleared, the cache files are more reliably removed, and the index.dat file is overwritten with null bytes.

Caching has been improved in IE9.

6. Group Policy:

Main article: Group Policy

Internet Explorer is fully configurable using Group Policy. Administrators of Windows Server domains (for domain-joined computers) or the local computer can apply and enforce a variety of settings on computers that affect the user

interface (such as disabling menu items and individual configuration options), as well as underlying security features such as downloading of files, zone configuration, per-site settings, ActiveX control behavior and others. Policy settings can be configured for each user and for each machine. Internet Explorer also supports Integrated Windows Authentication.

ADVANTAGES AND DISADVANTAGES:

Advantages:

- Comes installed already on computer
- Faster with Windows computers because it is integrated
- Some websites can only be used with Internet Explorer
- Universal
- Some applications are optimized for IE

Disadvantages:

- No add-on support
- Slows down with newer versions, such as IE7
- May be less secure than other browsers
- Becomes buggy easily
- Targeted by hackers

GOOGLE CHROME:



Google Chrome is a cross-platform web browser developed by Google. It was first released in 2008 for Microsoft Windows, and was later ported to Linux, macOS, iOS, and Android. The browser is also the main component of Chrome OS, where it serves as the platform for web apps.

Most of Chrome's source code comes from Google's open-source Chromium project, but Chrome is licensed as proprietary freeware. WebKit was the original rendering engine, but Google eventually forced it to create the Blink engine; all Chrome variants except iOS now use Blink.

As of April 2020, Stat Counter estimates that Chrome has a 68% worldwide browser market share (after peaking at 72.36%) on traditional PCs and 64% across all platforms. Because of this success, Google has expanded the "Chrome" brand name to other products: Chrome OS, Chrome cast, Chrome book, Chrome bit, Chrome box, and Chrome base.

FEATURES OF GOOGLE CHROME:

- Create applications shortcuts for your favorite websites.
- Synchronize bookmarks across browsers.
- Task manager for your chrome browser.
- Check memory used by different browsers.
- Chrome pin tab feature.

ADVANTAGES OF GOOGLE CHROME:

1. Sleek Design:

Google revamped Chrome's design in 2018 and updated many features. Chrome looks sleek and simple using the Material Design concept from Google. Windows version of Chrome doesn't even have traditional menu items on top and packed with all features behind simple settings page.

The idea is good that most of the users don't need to tweak browser's settings. However, you can setup specific settings for individual websites like blocking pop-up, blocking ads, etc.

2. High Speed Browser

The sleek design results in high speed of Chrome. We use Firefox / Edge / IE in Windows and Firefox / Safari in Mac. Many websites take long time to open in Firefox and Safari that instantly load on Google Chrome. Though there are

problems like resolving host happens only on Google Chrome, the speed is definitely a differentiator.

3. Safe and Secure:

Google updates the browser regularly to keep it safe and secure. Chrome will auto update to latest technology when you connect to internet. In addition, Chrome offers following protection:

- Block dangerous and malicious sites. You can simply enable “Safe Browsing” option in settings.
- Chrome cleanup tool for Windows PC will help to identify and delete malware that affects your browser.
- By default, Chrome will show lock pad icon in the address bar to indicate the secured connection of a site. Chrome will also show a site as “Not Secure” when the site does not use HTTPS encryption. You can keep away from those “Not Secure” sites and avoid providing personal and credit card details on those sites.

4. Cross Platform Browser:

Google uses a custom Blink Browser Engine (except on iOS app) and offers a cross platform browser. Unlike Edge and Safari, you can use Chrome on Windows, Mac and Linux platforms.

Though certain functionalities like changing language are different in Mac and Windows, most of the features remain same. This will help to have same user experience across all desktop devices. For example, many of us are habituated with “Control + Enter” to add .com suffix to a domain name in Windows. You can use the same “Control + Enter” shortcut keys in Chrome Mac to add .com suffix to websites.

5. Sync across Devices:

One of the big advantages of Chrome is to login using your Google account and synchronize all bookmarks, history and other data across your devices. This will help to save bookmarks on your desktop and pick it up on your Android mobile a day later.

6. Large Extensions Base:

Google Chrome has large number of extensions to enhance the browser's functionalities for special needs. Starting from simple ad blocking to custom extensions for teachers, bloggers and artists are available. There are two marketplaces to install extensions on Chrome – one is Chrome Web Store and other is G Suite marketplace. You can also hire developers to build your own app to improve your workflow on your project.

7. Integration with Google Apps:

Chrome became the biggest winner in the browser's world due to the easiness to integrate with other Google products like Gmail. Logging in to Chrome will automatically login to other Google apps like Gmail, Analytics, Ad Sense, Google Ads, Search Console, etc.

In addition, Google also capitalized the success of Chrome by integrating with other products like Chrome OS and Chrome cast.

8. Powerful Developer Console:

We have been using almost all the web browsers for a while and Chrome has an indisputable and powerful Developer Console. You can monitor network bandwidth, view source code and choose colors to adjust the design online. The integration of Lighthouse extension also helps you to do SEO audit of your web pages right from the browser.

In addition to the built-in developer console on stable version, you can also try out Chrome canary, developer and beta versions to test your development work.

9. Tab Management:

Chrome offers amazing tab management features.

- You can open a webpage in a new tab on the same windows, tab on a new window, in incognito mode or use guest mode.
- Unlike other browsers, when one of tab crashes, other tabs on Chrome will continue to work without crashing.
- Simply drag and drop a tab to a new window and move across within same window.

- Drag and drop a hyperlink from a webpage to address bar to open the page.

10. Powerful Inbuilt Features:

Google Chrome has many powerful features. Some of them are translation, PDF Viewer and Omni box. The Omni box has many functions like opening a website URL and directly searching using default search engine.

11. Installing and Uninstalling:

You can install and use Chrome without admin access on your computer. This will help to install Chrome on your office or school computers in which you don't have admin access.

Similarly, you can easily uninstall like any other program to delete the entire trace.

DISADVANTAGES OF GOOGLE CHROME:

Well, everything that glitters is not good. Chrome has some really annoying features, especially after the 10th anniversary update.

1. Confusing with Chromium:

Chrome is basically an open source browser based on Google's Chromium project. However, there exists a Chromium browser independent of Chrome. This is always confusing normal users like WordPress.com and WordPress.org. Recently, Microsoft also announced that Edge will use Chromium open source and offer independent browser for Windows and macOS platforms. This will make Google a literal monopoly in the browser world.

2. Privacy Concerns with Google Tracking:

Google is very popular for privacy related issues and many times fined from European countries for processing information without the user's concern. When you login to Chrome and sync all your browsing activities, you hand over the entire control of your data in Google's hand. If you are worried about the privacy then simply uninstall Chrome and go for Mozilla Firefox.

Remember that Firefox also uses Google as a default search engine. So you need to change the search engine for getting out of Google.

3. High Memory and CPU Usage:

Google Chrome consumes more CPU and RAM compared to other browsers. Though the browser is lightweight, high memory consumption will impact the use of other applications on your computer in parallel.

4. Changing Default Browser:

Google is only a default browser in Chrome OS. However, on Windows and macOS, you need to change the default browser from Edge and Safari to Chrome. Even that will not solve the problem completely. Whenever you open HTML pages offline, the operating system will try to use the in-built browser. Though you can setup default apps for each file type in Windows, it is a hassle.

In addition, there are no possibilities to remove Edge and IE from Windows and Safari from Mac. So you need to live with multiple browsers to handle the same tasks on your computer.

5. Limited Customization and Options:

Chrome doesn't allow certain customization and options like other browsers.

- Whenever you close a browser window with multiple tabs, Chrome will not warn you. This is a real problem that you may accidentally close a browser with multiple tabs.
- Less customization for new tab pages.

MOZILLA FIREFOX:



Mozilla Firefox, or simply Firefox, is a free and open-source web browser developed by the Mozilla Foundation and its subsidiary, Mozilla Corporation. Firefox uses the Gecko layout engine to render web pages, which implements current and anticipated web standards.

Initial release date: 23 September 2002

Stable release: 73.0

Engines: Gecko

Developers: Mozilla, Mozilla Corporation, Mozilla Foundation, Netscape, Blake Ross

Operating systems: Microsoft Windows, Linux, Android, macOS, MORE

Programming languages: JavaScript, Cascading Style Sheets, HTML, C, XML, C++, Rust, XBL

FEATURES:

Largely developed by the Mozilla Foundation, Firefox is an open source Web browser available on Windows, Mac and Linux. It is the second most popular Web browser on the Internet as of 2013. The browser has a number of unique features designed to enhance the browsing experience.

1. Open Source:

Firefox is the only open source Web browser among the most used browsers on the Web as of March 2013. The open source nature of Firefox enables developers from all over the world to contribute code to the browser and extend the functionality of Firefox with add-ons and themes.

Firefox is also aggressively committed to open Web technologies and is often among the first to support new and advanced features offered by HTML5, CSS3 and other Web technology.

2. Add-ons and Personas:

Firefox is one of the most easily customized browsers thanks to its extensive library of add-ons and personas. Add-ons are small bits of code that can extend the functionality of Firefox in an almost infinite number of ways.

From blocking advertisements and Flash content, to integrating social networks and email, to assisting Web developers debug and review live code, add-ons offer you the ability to configure Firefox exactly as you like it.

If you want to change the look and feel of the Firefox interface, just navigate to the personas library to browse the thousands of free themes available for Firefox.

3. Tab Management:

Firefox was on the forefront of the tabbed browsing revolution and it remains ahead of the curve in many ways. Tab Groups is a built-in feature that offers a simple way to cluster your tabs into different categories. This is particularly useful if you have a large number of tabs open, as it cuts down on the clutter in the tab bar. Another way to cut down on tab bar clutter is to employ the App Tabs functionality. With a simple right-click, you can reduce commonly used tabs to just the favicons so it uses less space. This is especially useful if you keep email or Face book always open in one tab, as you likely do not need to see the full website title for those tabs.

4. Security:

Firefox features a number of tools designed to prevent malicious websites from causing harm. In particular, Firefox features a pop-up blocker, anti-phishing and anti-malware warnings that are updated 48 times per day to prevent you from accessing fraudulent websites and thorough website identity information that is easily accessible from the address bar, making it easy to validate a website before you enter private information. Firefox was also one of the first browsers to offer a private browsing mode that instructs the browser to discard all website data, including cookies and cache, once browsing is complete.

ADVANTAGES OF MOZILLA FIREFOX:

1. Speed. Firefox is reported to be the fastest browser when it comes to download

speed. Not only do programs and files download faster, but you get a record of your entire download in the form of a table, so you can erase or move them at your convenience.

2. Security. Firefox has some advanced security measures that protect your computer from spyware and even certain viruses. Firefox also comes with a state-of-the-art popup blocker that stops almost 100 percent of popup.

3. Tabbed browsing and other advanced features. Tabbed browsing allows you to open an unlimited number of pages in a single window, thus helping you organize your browsing. Firefox also has an embedded memory, which means that if your computer is turned off by mistake, Firefox will remember which Internet pages you had open and offer to get them back for you.

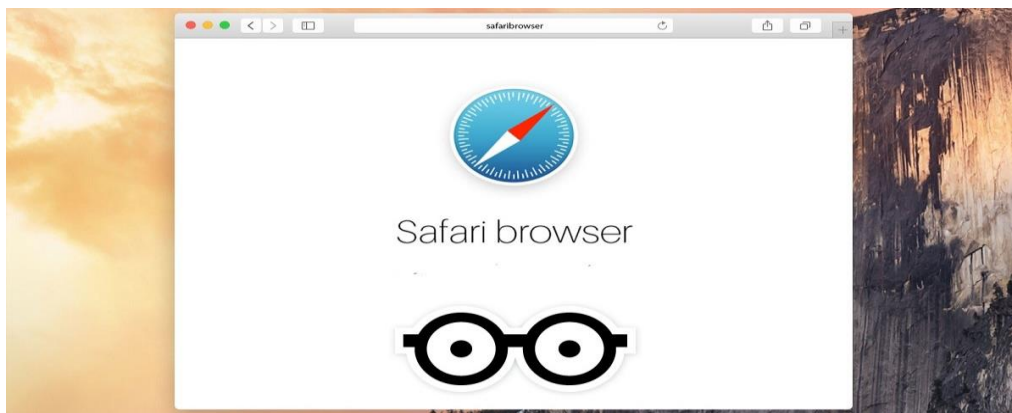
DISADVANTAGES OF MOZILLA FIREFOX:

1. Compatibility issues. The main disadvantage of Firefox is compatibility. Some websites do not show properly in Firefox, and require you to view them with IE. This includes pages with ActiveX and VBScript, both of which are not supported by Firefox.

2. Memory. Firefox takes a lot of memory to run. Even with an up-to-date computer, you may find that it becomes hard to run Firefox along with a couple of programs. Firefox also tends to freeze and close when too many tabs are open simultaneously, which is why Firefox invested heavily in creating the recovery memory feature.

3. Interrupted service. Another disadvantage of Firefox is that downloads cannot be resumed if interrupted. This may not be a big deal if you have DSL service, but those on a dial-up connection may have a lot of trouble with this. Firefox was actually designed for people using high-speed Internet, which means dial-up users can run into many problems along the way.

SAFARI:



Safari is a graphical web browser developed by Apple, based on the Web Kit engine. First released on desktop in 2003 with Mac OS X Panther, a mobile version has been bundled with iOS devices since the iPhone's introduction in 2007. Safari is the default browser on Apple devices.

Initial release date: 7 January 2003

Engines: Web Kit

Developers: Apple

Operating systems: Microsoft Windows, iOS, macOS, Windows XP, OS X Mountain Lion, Mac OS X Lion

Programming languages: Swift, C++, Objective-C

License: Freeware, GNU Lesser General Public License

FEATURES:

1. Browsing and Search Snap-back
2. URL Path Navigation
3. Web Analyzer
4. Activity Window
5. Inline Dictionary
6. Choice to Speech
7. Rapid Notes
8. Email Page Link

ADVANTAGES OF SAFARI:

- Safari has speed compatibility, It is easy to use, The page-load times is impressive, It provides all of the security features, It cleans up unnecessary junk, It is great for Mac users and free to download, It is extremely fast to download for Mac users, and you can add extensions from Safari Extensions.
- Safari is easy in navigation, It has clean and simple layout, It is easy bookmarking, Multiple tabs can be opened simultaneously, You can save the tabs for the future use, Safari is the best browser for Mac business users.

- Safari supports a great search plug-in, It is the fastest web browser, It looks nice and clean, it has private browsing, It is an Internet browser by Apple, The supporting shortcuts are helpful, And it has good security features.
- Safari is a web browser that comes preloaded on all Mac computers and iOS devices but it is also available for Windows computers, It is only used by 4% of people, It has easy zooming options, and it covers flow history searching.
- Safari offers cross-platform features that you can use on your iOS mobile device and it has fast page load times, it has a lot of extensions, It is available for both Mac and PC, It provides bookmarking and RSS feeds, It has tabulation and top sites feature.
- If you use Safari on more than one device, Safari offers some really useful features via sharing information through your iCloud account, Safari can track recent tabs across iOS and OS X, so, if you find an interesting website on your iPhone, you will find it on Safari on your Mac by clicking the “iCloud Tabs” button.
- Safari saves the bookmarks and the reading lists across the devices through your iCloud account, your usernames, passwords, and credit card numbers, Safari has spelling and grammar check tools, it has Download Manager, It is efficient and fast, and it has developer tools.
- Safari is secure; It has many features that you would expect from a web browser such as options for private browsing which prevents web pages from being saved to your computer or the ability to block the websites from loading cookies on your Mac and tracking your website activity.
- Safari comes with a share button, so, you can send links to friends or post them on Face book directly from the browser, if you click on a link to a suspicious or harmful website, Safari warns you before opening the page, If you are looking for more features, Safari has a full library of extensions that include productivity tools, security features & translation plug-ins.

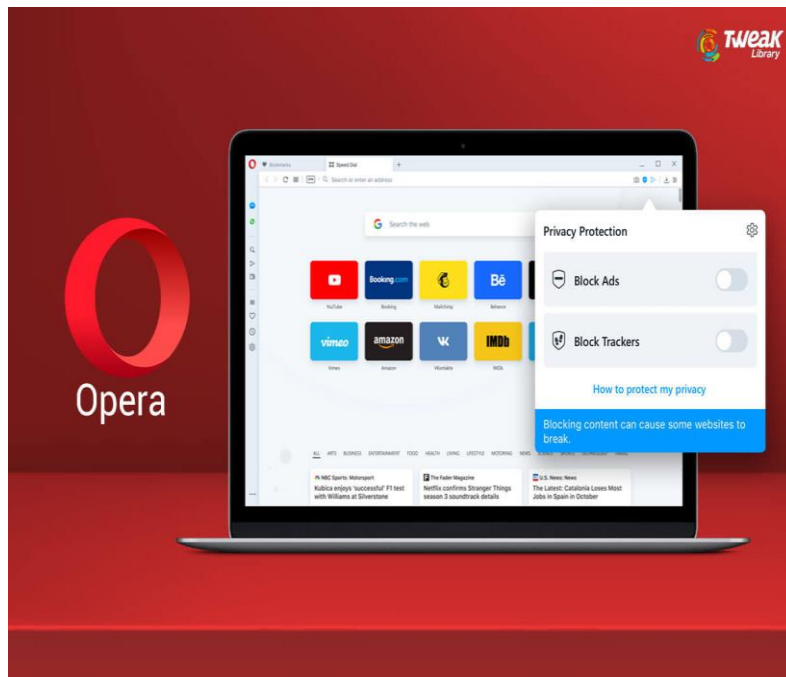
DISADVANTAGES OF SAFARI:

- Safari has lack of customization options that many competitors offer, the support system may be missing some options for the users in FAQ section, there is trouble with Google built-in search engine that can't be changed, and there is a difficulty of deleting cookies on exit automatically.
- Updates to Safari are rare, Some websites do not support Safari, Although pop-ups are rare, It is hard to turn off pop-ups, it has boring look, It is founded by Apple Inc, therefore it is limited to Apple products, Safari has vulnerability to the malware, It has slow moments, It is not always

compatible, There are a lot of security flaws, The flash does not work well with Safari.

- Security is an issue for many users who use Safari for Windows, as security is not usually an issue for MAC users, The users who are well versed in MAC version of this program should take extra precautions when browsing the internet as it is vulnerable to intrusion by the malware like any other program, Any Windows user who is looking for something more efficient than Internet Explorer might not want to make the transition to Safari as it has its issues like any other browser.

OPERA:



Opera is a freeware web browser for Microsoft Windows, Android, iOS, macOS, and Linux operating systems, developed by Opera Software. Opera is a Chromium-based browser using the Blink layout engine. It differentiates itself because of a distinct user interface and other features.

Initial release date: 10 April 1995

Engines: Blink

Programming languages: C++

Developers: Opera Software, Otello Corporation

Operating systems: Android, Linux, Microsoft Windows, macOS, MORE

License: Freeware, Proprietary software

ADVANTAGES OF OPERA BROWSER:

- Opera is free and it makes internet browsing faster, even on slow connections with Opera Turbo, It is an open-source browser developed by Opera Software ASA, Opera has speed dial, and it is available for Linux, you can customize searching, and there is no setup.
- Many features incorporated into both Chrome and Firefox originated in Opera browser and therefore by being an Opera user, while new and improved viruses are being designed on a daily basis for those browsers, Opera can enjoy more peaceful existence in terms of security threats.
- Opera has fast web page downloading, it is the latest in browser technology allowing the users to speed through the web pages, it has a quick link page, it has secure browsing, and it has features mouse gestures, making browsing experience more fun.
- Opera Browser is light, So, It does not take a large enough hard drive memory on a notebook or PC, It has an email client and RSS alone, So, There is no need to use an email client such as Outlook, Opera Turbo can be activated when the connection is slow so that the process can be faster loading page.
- Opera is a lightweight browser. It is good for people using older computers, it has a growing collection of extensions, and it is quick to provide support to new technology, it is a less popular browser than the others but it does not mean that it is not good; it is used by 2% of people.

DISADVANTAGES OF OPERA BROWSER:

- While Opera has lack of popularity makes it incredibly secure, the developers of websites frequently do not bother to check whether their sites are compatible with Opera, you can find more sites that are incompatible with it than with any other browser.
- Opera has fewer users, So, The developers make fewer extensions and themes, when you consider that Firefox has over 6,000 extensions available

to download for free, the number of extensions available for Opera becomes quite a letdown.

- Opera has compatibility issues with some sites, It failed to read the script at specific sites, It looks too advanced, making novice users difficulties when initial use.
- Opera is not compatible with all the web pages, There are no add-ons, There is no RSS, update your browser means having to download again master, It does not have the same number of people writing tutorials and answering questions, and it has trouble loading a few sites in particular.
- Opera has no progress bar for loading websites, Some websites do not load properly in Opera, It is not as customizable as Firefox, There is a built-in torrent program but it is much slower than a non-browser program like uTorrent, The interface is very small which some people dislike.

KONQUEROR:



Konqueror is a free and open-source web browser and file manager that provides web access and file-viewer functionality for file systems. It forms a core part of the KDE Software Compilation. Developed by volunteers, Konqueror can run on most Unix-like operating systems.

Developers: KDE

Engines: KHTML

License: GNU General Public License

Initial release: 14 October 1996; 23 years ago

Operating systems: Microsoft Windows, Linux, macOS, Unix, Linux kernel, Berkeley Software Distribution

Programming languages: C++, Qt

KONQUEROR ADVANTAGES:

- Konqueror is fast & efficient browser , It includes built-in advertisement blocking , It contains a pop-up blocker , It has a password manager , It offers a tabbed browsing , It has split-screen browsing option , It comes with “Bookmark” manager , It has Web-page translation and it presents Spelling checker .
- Konqueror supports text-based in-browser web shortcuts , Some are included & more may be added , Konqueror doesn't take three minutes to load , It doesn't take a full minute to load a tab , It has an IMAP email client and it will most certainly come in handy for the right person .
- In Addition to a web browser, It has the ability to perform local file management & file viewer, With technology KPart object model, the browser is able to execute, edit specific files such as the documents or PDF file format, KPart can be used to embed multimedia content in an HTML page.
- Konqueror uses KHTML as its browser layout engine , It complies to open web standards , It has native ad-blocking support , It has some plug-in support via Konqueror I/O plug-in system , It offers brilliant file manager integration that allows for viewing of local & remote file systems via a file system .

KONQUEROR DISADVANTAGES:

- Konqueror browser does not have large extension support , It has no extension support similar to Opera , Chrome/Chromium and Firefox , It is unable to tap into the large collection of Chrome extensions like many other browsers do , So , the options to extend Konqueror's functionality are pretty limited .
- Konqueror browser does not have incognito/private mode, It does not have the option to browse the web in private mode , that is used when you don't want to leave any search history or avoid saving any cookies or cached data , Konqueror is used by tech-savvy people , It is not recognized by “Web 2.0” websites , Add-ons are supposedly supported , but none are available .
- Konqueror is fast to start up and light , but having trouble with some pages , Mozilla/Netscape6 is much better with rendering all most any web-page (and make it look very pretty) , but is very heavy , and somewhat sluggish and Opera is somewhere between .

LYNX:



Lynx is a customizable text-based web browser for use on cursor-addressable character cell terminals. As of November 2019, it is the oldest web browser still in general use and active development, having started in 1992. Wikipedia

Engine: fork of lib www

License: GNU General Public License

Available in: English Language

Developers: Lou Montulli, Thomas Dickey

Operating systems: Microsoft Windows, Unix, DOS

Programming languages: C, ANSI C