

ASSIGNMENT-1

SECTION-A

Q1 Define internet? What is Internet Service Provider?

The Internet is a global wide area network that connects computer systems across the world. It includes several high-bandwidth data lines that comprise the Internet "backbone." These lines are connected to major Internet hubs that distribute data to other locations, such as web servers and ISPs. The Internet, sometimes called simply "the Net," is a worldwide system of computer networks

In order to connect to the Internet, you must have access to an Internet service provider (ISP), which acts the middleman between you and the Internet. Most ISPs offer broadband Internet access via a cable, DSL, or fiber connection. When you connect to the Internet using a public Wi-Fi signal, the Wi-Fi router is still connected to an ISP that provides Internet access. Even cellular data towers must connect to an Internet service provider to provide connected devices with access to the Internet.

The Internet provides different online services. Some examples include:

- Web – a collection of billions of webpages that you can view with a web browser
- Email – the most common method of sending and receiving messages online
- Social media – websites and apps that allow people to share comments, photos, and videos
- Online gaming – games that allow people to play with and against each other over the Internet
- Software updates – operating system and application updates can typically downloaded from the Internet

In the early days of the Internet, most people connected to the Internet using a home computer and a dial-up modem. DSL and cable modems eventually provided users with "always-on" connections. Now mobile devices, such as tablets and smartphones, make it possible for people to be connected to the Internet at all times. The Internet of Things has turned common appliances and home systems into "smart" devices that can be monitored and controlled over the Internet. As the Internet continues to grow and evolve, you can expect it to become an even more integral part of daily life.

Q2 Write a short note on web browser?

A web browser, or simply "browser," is an application used to access and view websites. Common web browsers include Microsoft Internet Explorer, Google Chrome, Mozilla Firefox, and Apple Safari.

The primary function of a web browser is to render HTML, the code used to design or "mark up" webpages. Each time a browser loads a web page, it processes the HTML, which may include text, links, and references to images and other items, such as cascading style sheets

and JavaScript functions. The browser processes these items, then renders them in the browser window.

Early web browsers, such as Mosaic and Netscape Navigator, were simple applications that rendered HTML, processed form input, and supported bookmarks. As websites have evolved, so have web browser requirements. Today's browsers are far more advanced, supporting multiple types of HTML (such as XHTML and HTML 5), dynamic JavaScript, and encryption used by secure websites.

The capabilities of modern web browsers allow web developers to create highly interactive websites. For example, Ajax enables a browser to dynamically update information on a webpage without the need to reload the page. Advances in CSS allow browsers to display a responsive website layouts and a wide array of visual effects. Cookies allow browsers to remember your settings for specific websites.

While web browser technology has come a long way since Netscape, browser compatibility issues remain a problem. Since browsers use different rendering engines, websites may not appear the same across multiple browsers. In some cases, a website may work fine in one browser, but not function properly in another. Therefore, it is smart to install multiple browsers on your computer so you can use an alternate browser if necessary.

Q3 Write a short note on URL?

URL (Uniform Resource Locator):

A URL (Uniform Resource Locator) is a unique identifier used to locate a resource on the internet. It is also referred to as a web address. URLs consist of multiple parts -- including a protocol and domain name -- that tell a web browser how and where to retrieve a resource.

End users use URLs by typing them directly into the address bar of a browser or by clicking a hyperlink found on a webpage, bookmark list, in an email or from another application.

A URL is the most common type of Uniform Resource Identifier (URI). URIs are strings of characters used to identify a resource over a network. URLs are essential to navigating the internet.

URL structure:

The URL contains the name of the protocol needed to access a resource, as well as a resource name. The first part of a URL identifies what protocol to use as the primary access medium. The second part identifies the IP address or domain name -- and possibly subdomain -- where the resource is located.

URL protocols include HTTP (Hypertext Transfer Protocol) and HTTPS (HTTP Secure) for web resources, mailto for email addresses, ftp for files on a File Transfer Protocol (FTP) server, and telnet for a session to access remote computers. Most URL protocols are followed by a colon and two forward slashes; mailto is followed only by a colon.

Optionally, after the domain, a URL can also specify:

- a path to a specific page or file within a domain;

- a network port to use to make the connection;
- a specific reference point within a file, such as a named anchor in an HTML file;
- a query or search parameters used -- commonly found in URLs for search results.

URL examples

Here are a few examples of URLs and what their separate parts look like.

This example specifies:

- the resource is to be retrieved using the HTTPS protocol -- which powers the web -- via a web browser;
- the resource is reached through the domain name system (DNS) name;
- the domain name -- or resource -- is [whatis.techtarget.com](https://en.wikipedia.org/wiki/Internet#History); and the path is `/glossaries`.
- <https://en.wikipedia.org/wiki/Internet#History> indicates:
- the HTTPS protocol is used; and
- the URL will retrieve the webpage at the point marked with the named anchor History.

HTTP vs. HTTPS

Both HTTP and HTTPS are used to retrieve data from a web server to view content in a browser. The difference between them is that HTTPS uses a Secure Sockets Layer (SSL) certificate to encrypt the connection between the end user and the server.

HTTPS is vital to protecting sensitive information -- such as passwords, credit card numbers and identity data -- from unauthorized access.

HTTPS uses TCP/IP port 443 by default, whereas HTTP uses port 80.

Q4 Write some web creations tools?

1. Yola

What it does: Yola lets you build a basic website by picking a template and filling out a few simple forms. Once you have a rough outline, you fine-tune your site with an in-place editing tool. Yola has the goods to let you really dig into the web. You can integrate your site with an impressive list of third-party services such as Google Maps and PayPal, Flickr for photo sharing and Picnik for photo editing.

What it costs: The basic web-building tool and a Yola.com address are free. For extra features, better-looking templates and the ability to use your own domain name, the Yola Silver upgrade is \$100 per year.

Bottom line: If you're looking for a basic, professional site at a reasonable cost, Yola's your answer.

2. Jimdo

What it does: Jimdo's free version does what a respectable website builder should do, and not much else. We suggest springing for the upgrades (which are reasonably priced) to unlock some cool business features, such as custom newsletters to keep in touch with your customers, page-view stats, PayPal stores and password-protected employees-only pages.

What it costs: Basic features and a Jimdo.com address are free. Jimdo Pro is \$5 per month. Jimdo Business is \$15 per month, including unlimited data storage and online selling, two domain names and business-specific site designs.

Bottom line: The free tool isn't worth your time. But what Jimdo does well is hold your hand with nice templates and good overall tools. If you want to sink a little more effort into a site that looks and feels unique, Jimdo is your best bet.

3. WIX

What it does: Wix lets you build a great-looking website in no time with its easy-to-use, what-you-see-is-what-you-get editor. Here's the downside: The web development tool is based on Adobe Flash, which works on most PCs but isn't supported by some mobile devices, including the all-powerful Apple iPad. If that isn't a problem for you, Wix has lots of elegant templates that are easy to customize and can fit every business need. Wix's image-heavy sites are especially great for photo galleries, which really show clients what your business can do. A new mobile tool lets you build a simple, smartphone-optimized site to reach on-the-go clients.

What it costs: The full-featured website-building tool and Wix.com address are free. Paid subscriptions, which let you do things like remove ads and link a site to your own domain name, run \$5 to \$16 per month.

Bottom line: If you must have that slick, designed look and don't mind alienating a couple of potential users, Wix is the answer. Just be sure you understand the limits of Flash, as it can be surprisingly tricky to work with.

4. Intuit Websites

What it does: Starting a business takes creativity, but maybe you're not the artistic type. Luckily, even the most design-challenged among us can squeeze a respectable-looking website out of Intuit's somewhat bland but reliable web-editing tool. A quick survey helps you pick a template that's based on what your business does and your goals for the website. The template sorter goes into more detail than many website builders that make you wade through thousands of templates. From there you can tinker with the look and layout, but with some quick text and picture entries you'll be well on your way to a reasonable web presence.

What it costs: The starter package is free for 30 days, then \$5 per month. Business and Professional packages are \$24 and \$50 per month, respectively, and include features like custom domain names, online selling tools and search engine optimization. Insider's note: Intuit has several resale agreements with large telecom companies like Verizon, so don't be afraid to dig around to find a package discount.

Bottom line: This is by no means the slickest tool, but for a basic business site, Intuit isn't bad, and it's especially effective for QuickBooks users.

5. Google Sites

What it does: This service can give you a simple Google web presence for free. But you probably don't need that when there are better, faster and easier options from the likes of Facebook, Twitter and LinkedIn. What Google Sites does best happens outside the public eye. With this tool you can create private, team-based websites within your business--which turns that Google Apps account of yours into a powerful business organization tool. Google Sites puts nifty collaboration tools like announcements, documents and task lists in one online location, allowing you and your colleagues to access them from anywhere. It's a great way to bring some sanity to the startup chaos.

What it costs: It's free.

Bottom line: Don't use this tool to develop a traditional website unless you have a solid coding background or are hiring a coder who does. For the average user, Google Sites is best for creating a company intranet.

SECTION-B

Q5 Explain the World Wide Web?

World Wide Web (WWW)

The World Wide Web (WWW) is combination of all resources and users on the Internet that are using the Hypertext Transfer Protocol (**HTTP**).

A broader definition comes from the World Wide Web Consortium (**W3C**):

"The World Wide Web is the universe of network-accessible information, an embodiment of human knowledge."

The Web, as it's commonly known, is often confused with the **internet**. Although the two are intricately connected, they are different things. The internet is, as its name implies, a network -- a vast, global network that incorporates a multitude of lesser networks. As such, the internet consists of supporting infrastructure and other technologies. In contrast, the Web is a communications model that, through HTTP, enables the exchange of information over the internet.

Tim Berners-Lee is the inventor of the Web and the director of the W3C, the organization that oversees its development. Berners-Lee developed **hypertext**, the method of instant cross-referencing that supports communications on the Web, making it easy to link content on one web page to content located elsewhere. The introduction of hypertext revolutionized the way people used the internet.

In 1989, Berners-Lee began work on the first World Wide Web **server** at **CERN**. He called the server "httpd" and dubbed the first **client** "WWW." Originally, WWW was just a **WYSIWYG** hypertext browser/editor that ran in the NeXTStep environment.

The World Wide Web has been widely available since 1991.

Q6 Briefly explain the different types of internet connection.

Different Types of Internet Connections

There are many ways a personal electronic device can connect to the internet. They all use different hardware and each has a range of connection speeds. As technology changes, faster internet connections are needed to handle those changes. I thought it would be interesting to list some of the different types of internet connections that are available for home and personal use, paired with their average speeds.

Dial-Up (Analog 56K).

Dial-up access is cheap but slow. A modem (internal or external) connects to the Internet after the computer dials a phone number. This analog signal is converted to digital via the modem and sent over a land-line serviced by a public telephone network. Telephone lines are variable in quality and the connection can be poor at times. The lines regularly experience interference and this affects the speed, anywhere from 28K to 56K. Since a computer or other device shares the same line as the telephone, they can't be active at the same time.

DSL.

DSL stands for Digital Subscriber Line. It is an internet connection that is always "on". This uses 2 lines so your phone is not tied up when your computer is connected. There is also no need to dial a phone number to connect. DSL uses a router to transport data and the range of connection speed, depending on the service offered, is between 128K to 8 Mbps.

Cable. Cable provides an internet connection through a cable modem and operates over cable TV lines. There are different speeds depending on if you are uploading data transmissions or downloading. Since the coax cable provides a much greater bandwidth over dial-up or DSL telephone lines, you can get faster access. Cable speeds range from 512K to 20 Mbps.

Wireless. Wireless, or Wi-Fi, as the name suggests, does not use telephone lines or cables to connect to the internet. Instead, it uses radio frequency. Wireless is also an always on connection and it can be accessed from just about anywhere. Wireless networks are growing in coverage areas by the minute so when I mean access from just about anywhere, I really mean it. Speeds will vary, and the range is between 5 Mbps to 20 Mbps.

Satellite. Satellite accesses the internet via a satellite in Earth's orbit. The enormous distance that a signal travels from earth to satellite and back again, provides a delayed connection compared to cable and DSL. Satellite connection speeds are around 512K to 2.0 Mbps.

Cellular. Cellular technology provides wireless Internet access through cell phones. The speeds vary depending on the provider, but the most common are 3G and 4G speeds. A 3G is a term that describes a 3rd generation cellular network obtaining mobile speeds of around 2.0 Mbps. 4G is the fourth generation of cellular wireless standards. The goal of 4G is to achieve peak mobile speeds of 100 Mbps but the reality is about 21 Mbps currently.