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Internet and Web Browsing

Learning Objectives



In this chapter, you will be learning about:

- The Internet and what you need for an Internet connection
- A web browser and its various components
- Navigating between the web pages
- Using the search engine for finding information

The Internet has become a very important part of our everyday life—be it at home, in school or in the office. Isn't the Internet exciting as well as intriguing? **Exciting**, because using the Internet you can send mails to your friends across the world in seconds, chat with them or do your school projects by searching information online! **Intriguing**, because we do so much using the Internet yet know so little about it. In this chapter, you will learn a lot about the Internet.

INTERNET

The word **Internet** can be split into two words, **Inter**' meaning inside or within and **'net**' meaning mesh (like those used by the fishermen). Hence, Internet would mean **within mesh or inside the mesh**. This mesh, however, does not mean the fisherman's net.

It means a mesh of computer networks. More formally, the Internet may be defined as follows:

The Internet is a network of computers, spread all over the world, that allows users to share information and to communicate with each other.

The Internet is a network of computers that allows people to connect with each other, no matter which country they reside in. Connecting to the Internet allows you to explore the world of travel, education, science, history and much more.

Requirement for an Internet Connection

The Internet is a network of computers. Therefore, the first thing you need to access the Internet is a computer or a computer-like device.

The next requirement is a **modem** (**modulator–demodulator**). A modem is a hardware equipment which enables a computer to link to the Internet and send or receive information using a telephone line. Modems are of two types: **Internal modem** which is fitted inside the computer and **External modem** which is connected to the computer from outside.

In addition to a computer and modem, you also need an **Internet Service Provider (ISP)** to gain access to the Internet. An ISP is a company which is in the business of providing Internet access to its customers. Aircel, MTNL, Tata Indicom and Reliance Communications are a few Indian ISPs.

Fact Byte

ISPs sell Internet service packages (Internet connection hours) to customers. Such a package is usually called an **Internet account**.

Internet Terminology

These days, it is very common to come across terms like www, hyperlink, web page and website. You know these terms are related to the Internet. But what do they mean? This section will tell you that.

Web Page, Website, Hyperlink and World Wide Web

Common Internet related terms that you come across are

- Web Page
- Website
- Hyperlink
- World Wide Web

Each page or screen on the net is called a **Web Page**. A web page is created using the HTML language (**Hyper Text Markup Language**). A web page may contain text, images, audios and videos.

Many interrelated web pages make a **website**. The first page of a website is called its **Homepage**.

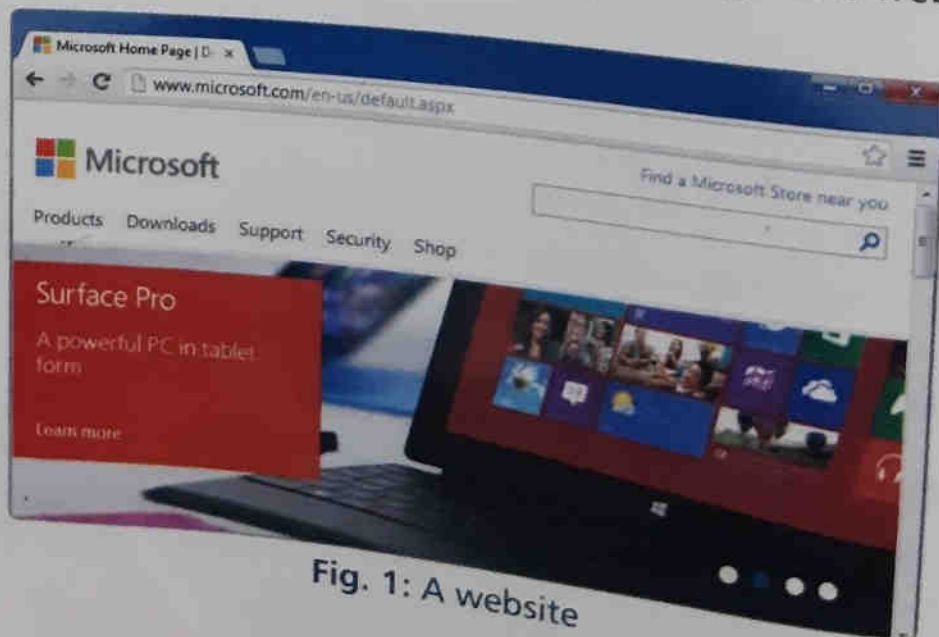



Fig. 1: A website

A web page can be connected to other related web pages of the same or different websites through links called **Hyperlinks**.

The **World Wide Web**, commonly known as **www** or **web**, is a result of millions of websites spun by web pages, very much like the web of a spider. The World Wide Web is one of the many services offered on the Internet.

So, **Web page + Web page + ... + Web page → Website**

Website + Website + Website + ... + Website → World Wide Web

Figure 1 shows a website. In this website, there are many places where the mouse pointer changes into a hand  pointer. Such a place represents a hyperlink that can be opened by clicking on it. Clicking a hyperlink often opens a web page linked to it. One web page can have more than one hyperlink. When we google anything, it comes up with various hyperlinks.

WEB BROWSERS

To access a website and find your way around the huge web of information available on the Internet, you need a web browser.

A web browser is a software or a program that allows a user to access websites on the Internet, view web pages and follow the hyperlinks to move around the web.

Many companies have developed web browsers which you can download for free. A list of the most commonly used web browsers is given in Table 1. The list also contains the addresses of the websites from where you can download these web browsers.

Table 1: Most commonly used Web Browsers

Web Browser	Company	Logo	Name of Website
Internet Explorer	Microsoft		www.microsoft.com
Firefox	Mozilla		www.mozilla.org
Safari	Apple		www.apple.com/safari
Opera	Opera		www.opera.com
Chrome	Google		www.google.com

A web browser with a web page from the website www.india.gov.in is shown in Figure 2.

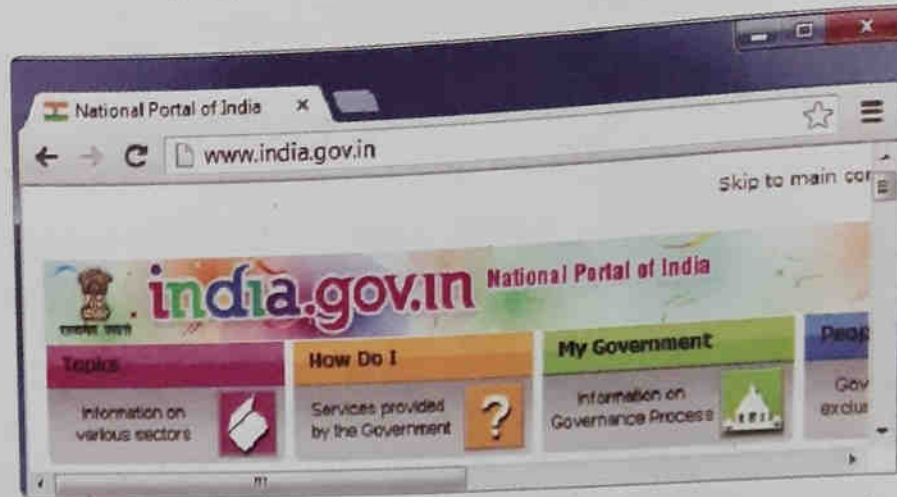


Fig. 2: A web browser loaded with a web page located at the www.india.gov.in website

Parts of a Web Browser

Web browsers differ from each other in many ways but they all have some basic common features. Let us take Microsoft's Internet Explorer as an example to understand these common features.

File Edit View Favorites Tools Help

Fig. 3: Menus of the Internet Explorer

Menus

A browser window has a number of menus just like any other window in the Windows operating system. There are six menus in Microsoft's Internet Explorer.

File Menu

Besides having the usual options for opening and saving a file, the **File** menu (Fig. 4) of Internet Explorer also has options for working offline and online. **Work offline** means working while you are not connected to the Internet and **Work online** means working while you are connected to the Internet. **Online** is a term used very often to indicate that your computer is connected to the Internet.

Edit Menu

The **Edit** menu (Fig. 5) has options for editing, that is, cut, copy, paste and find, just like any other window.

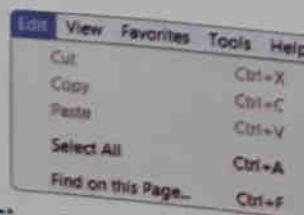


Fig. 5: The Edit menu in Internet Explorer

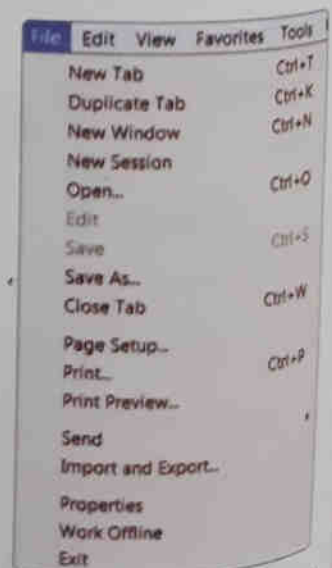


Fig. 4: The File menu in Internet Explorer

View Menu

The **View** menu (Fig. 6) has options related to the layout of a web page. There is also an option for showing or hiding the **Status bar**. A Status bar tells you the status of connection to a website. Other than a Status bar, it has a **Tool bar** option that changes the view of the page being displayed in the browser.

Favorites Menu

In the **Favorites** menu (Fig. 7), you can add and store the addresses of web pages you often visit. You can add a number of web pages to this list.



Fig. 7: The Favorites menu in Internet Explorer

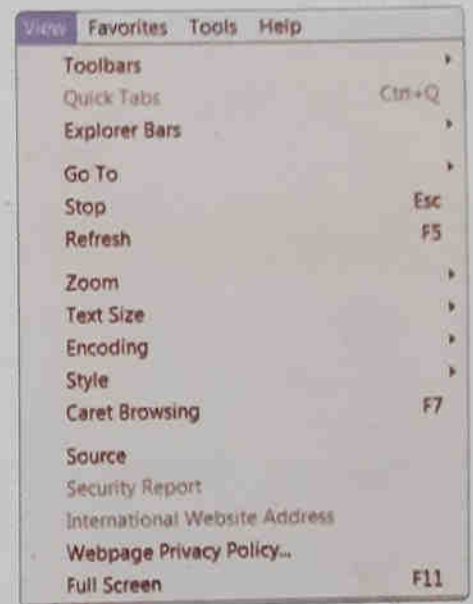


Fig. 6: The View menu in Internet Explorer

Tools Menu

The **Tools** menu (Fig. 8) offers options to change the various Internet Options that help users to make changes in the functioning of the browser. For example, if you want a blank page to open when you open the Internet Explorer, you can change the setting or may even add a page that you want to visit every time you open your browser. This is called the Homepage of the browser.

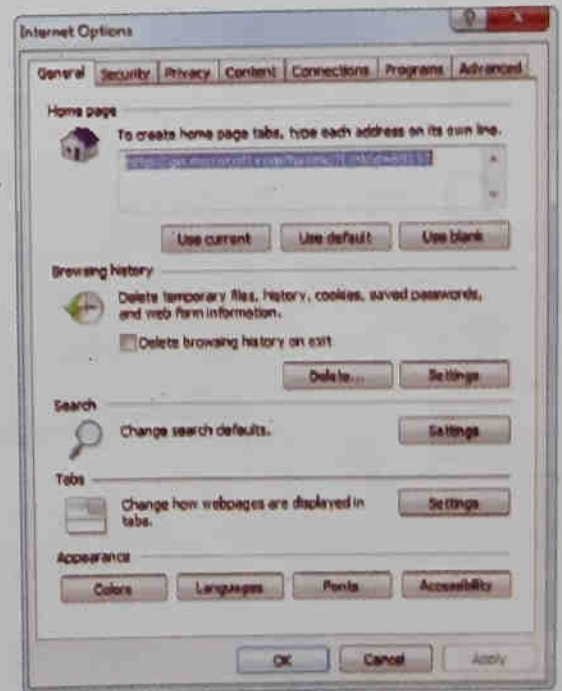


Fig. 8: Internet Options in the Tools menu

Help Menu

The **Help** menu (Fig. 9) has options for seeking online help for topics related to the browser.

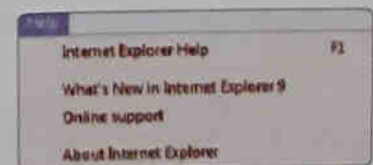












Fig. 9: The Help menu in Internet Explorer

Toolbar

The Toolbar is present just below the **Menu bar** and, like other window applications, has the command buttons represented by icons of the most frequently used options as shown in Table 2.

Table 2: Toolbar options in Internet Explorer

Icon	Name	Description
	Back	The Back button takes you to the last web page you have visited.
	Forward	The Forward button takes you to the next page you have visited. This button is active (highlighted or in bold) only when you have visited a page and come back to the current page.
	Stop	The Stop button stops the loading of a particular page.
	Refresh	The Refresh button reloads the page you are currently visiting.
	Home	The Home button takes you to the index or first page of a website of the browser.
	Search	The Search button opens a pane on the left hand side of the window wherein you can type the topic that you want to search.
	History	The History button gives you history of the pages that you visited at a particular time.
	Mail	The Mail button allows you to send, receive and view emails.
	Address bar	<p>The most important part of a browser is the Address bar. Every web page on the Internet has a unique address. The address box, present just below the Toolbar, is where you write the address of the web page or website you want to explore. The address looks like this: http://www.mail.yahoo.com</p> <p>Every web address is unique, in the same way as your telephone number or house number. In fact, it is very helpful to think of a web address as a telephone number, where you dial the site's address to view it.</p>
	Help	By clicking on this icon, the user can seek help on the current subject.

NAVIGATING BETWEEN THE WEB PAGES

Once connected to the Internet, you are ready to explore the potential of the World Wide Web, which is made up of a collection of millions of websites.

When you open a web browser, it starts fetching the web page specified in the address bar. If you want to visit another web page, you just have to write the address of that page in the address bar, and then, press the **Enter** key or click the **Go** button with your mouse.

The web browser will fetch you the page from that website through the Internet. When a page gets loaded in your web browser, you can click on a link in that page to open another page. Therefore, from one page, you can open many links one by one (by left-clicking the mouse on the link). You can also open more web pages at the same time in different windows. To do so, right-click on the link and select the option—**Open in new window** (Fig. 10).

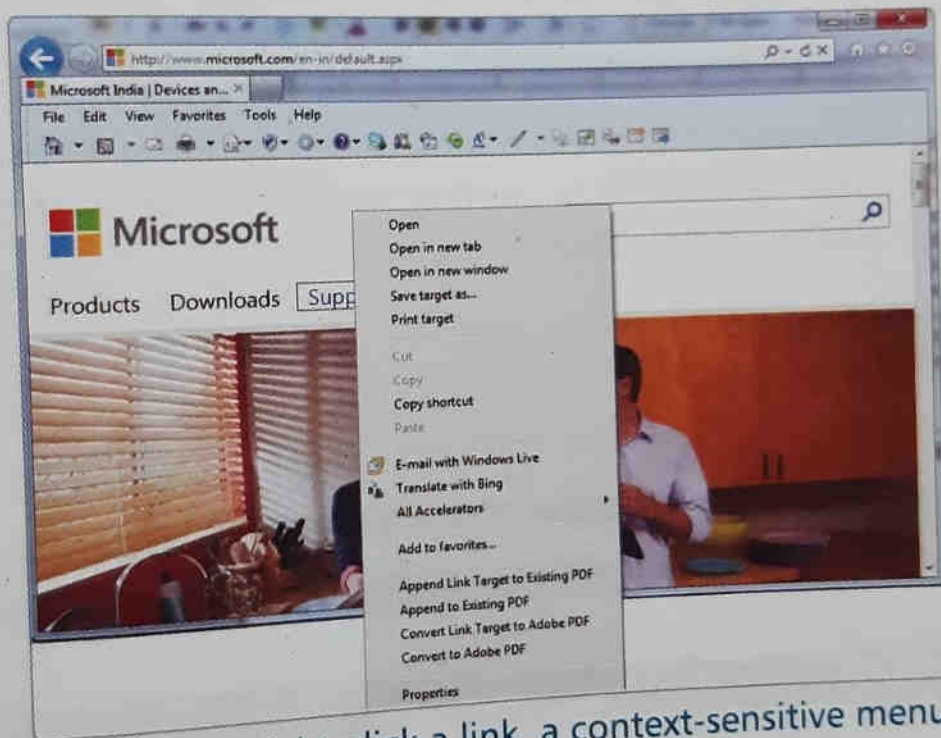


Fig. 10: When you right-click a link, a context-sensitive menu opens

SEARCHING FOR INFORMATION ON THE NET

Once you are online, you are ready to explore the World Wide Web. The quickest way to find information is to type the relevant web address of the website in the browser's address box and pressing the **Enter** key. The website's first page, which is called the **Homepage**, will appear in the browser.

If you don't know the address of the website you want to go to, you can find the information by using a **Search Engine**. A search engine searches for keywords or categories you specify, and then, shows you a list of the websites related to the keywords.

The addresses of some of the popular search engines are:

<<http://www.altavista.com>>
<<http://www.yahoo.com>>
<<http://www.google.com>>
<<http://www.lycos.com>>

Fact Byte

An Internet Protocol address (IP address) is a numerical label that identifies each sender or receiver of information that is sent in packets across the Internet. Every computer on the Internet is associated with a unique IP address.

Be Specific

An online search often returns millions of results so be as specific as you can in your search. Remember, the time you spend online costs money not only in the form of the Internet hours used but also in the form of the telephone bill that you have to pay by the end of the month, so it pays to be efficient in your searching. Economise on time by typing in the right, specific and concise words.

Links

It should be noted that most of the text that is underlined in a website is a link to another part of the same website or to another website. Click on the underlined text to jump to the new location pointed to by the link.

Search by Batch

Most search engines show their results in batches. Suppose, you are searching for the topic **Temples of India**, type in the keywords (Fig. 11) and press Enter.

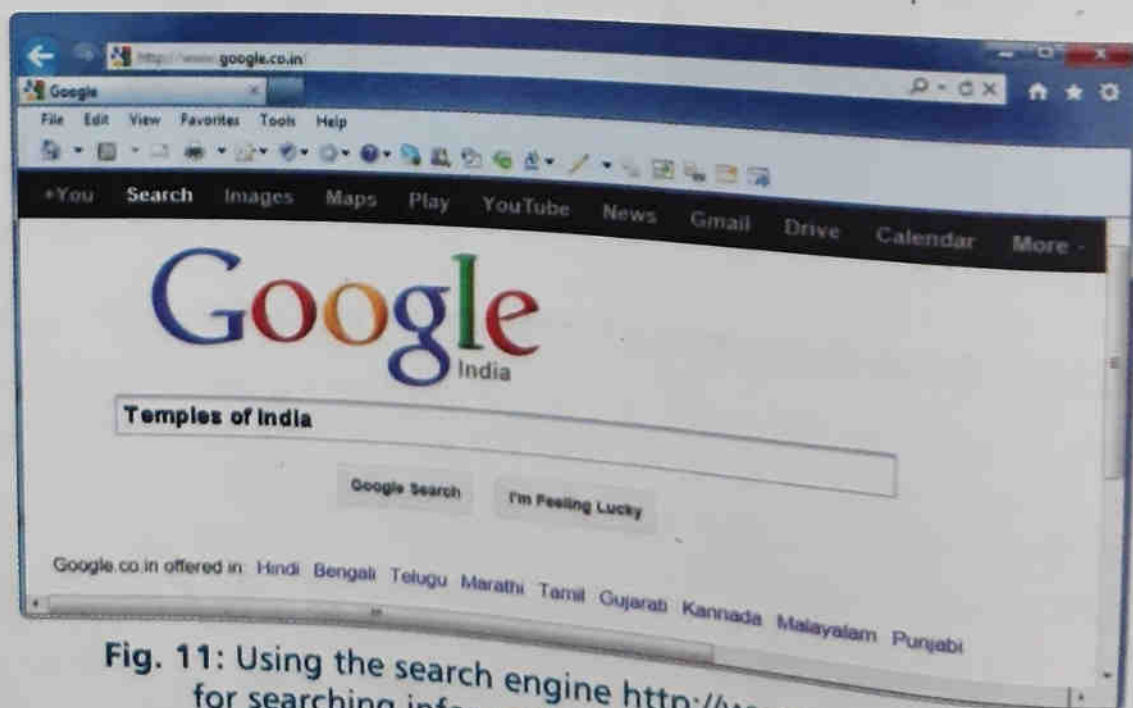


Fig. 11: Using the search engine <http://www.google.com> for searching information on Temples of India

The search engine will show you batches of sites at the bottom of the page where information related to 'Temples of India' is present (Fig. 12). You can also open more than one search engine at a time.

The browser shows only one page of the result. To show the other pages of the result, click on the page number as shown below.

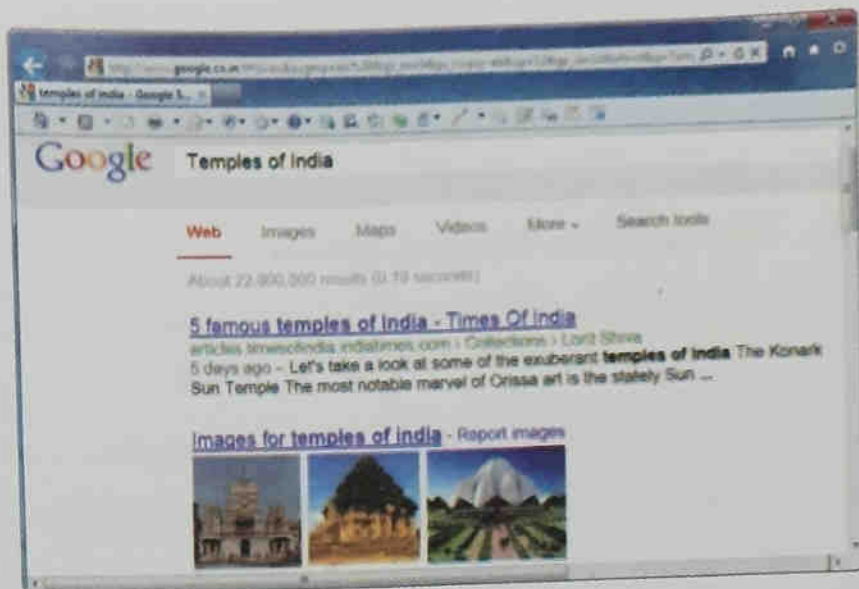


Fig. 12: Search result in batches

In order to see more page numbers, click on the **Next** link.

Activity Time

Surf the net using any web browser to find information on the parts of a human body. Download a video clipping of a pumping heart and save it in your computer to be shown with the help of a presentation.

Recall Time

- ♦ The Internet is a network of computers spread all over the world that allows users to share information and communicate with each other.
- ♦ A modem is a hardware equipment that enables a computer to connect to the Internet over a telephone line.
- ♦ The Internet Service Provider (ISP) is a company which facilitates the computer to connect to the Internet.
- ♦ The World Wide Web (www) is a collection of millions of websites.
- ♦ The Web browser is the software to visit websites and view web pages.
- ♦ A Search engine is a website that helps in finding information on any topic on the Internet.



A. Tick (✓) the correct option.

- To access the Internet, you do not require a/an:
 - modem
 - computer
 - pen drive ✓
 - Internet connection
- Which of the following is not a web browser?
 - QBasic ✓
 - Internet Explorer
 - Opera
 - Google Chrome
- Which menu of Internet Explorer has an option for showing or hiding the status bar?
 - File
 - View ✓
 - Favorites
 - Edit
- Which command button reloads the web page you have currently visited?
 - Home
 - Stop
 - Refresh ✓
 - Forward
- Which of the following is not a search engine?
 - Google
 - Lycos
 - Altavista
 - Firefox ✓

B. Fill in the blanks.

World Wide Web Modem ISP Web browser Home Emails

- You need a Modem and an ISP besides a computer to access the Internet.
- WWW is an acronym for World Wide Web.
- Web Browser allows you to view web pages.
- Home button of Internet Explorer takes you to the index or first page of a website.
- The Mail button of Internet Explorer allows you to send, receive and view Emails.

C. Match the following.

- World Wide Web
 - Website
 - Web browser
 - Search engine
 - Hyperlink
- jump to another page (5)
 - collection of websites (1)
 - collection of web pages (2)
 - Internet Explorer (3)
 - www.google.com (4)

D. Tick (✓) the correct statements and cross (X) out the incorrect ones.

1. The Internet is a network of computer spread all over the world.
2. Each page of screen on the net is called a website.
3. Google Chrome is a web browser.
4. The View menu has options related to the layout of a web page.
5. A search engine runs on petrol.

E. Answer the following questions.

1. What is the Internet?
2. What is a website?
3. What are the requirements for an Internet connection?
4. What is a Web browser? Write the names of the menus on the Toolbar in Internet Explorer.
5. Why do you need a Web browser and a Search engine?

Lab Activity

1. Your family plans to go to Goa to celebrate 'New Year'. Your father has asked you to help him in finding the hotel and flight details. Find the details on the Internet and paste the result in your computer notebook.
2. Find out today's news at www.indianexpress.com.
3. Open the site www.nationalgeography.com. Note the topics available on this website.
4. Collect information on your favourite game using the Internet. Take a printout and paste it in your computer notebook. Also, write the name of the websites which you used.
5. Encourage students to search demonetisation on the Internet.

Note to the Teacher

- ❖ Show different websites related to students' interest on the projector for introducing the lesson.
- ❖ Students should be encouraged to share their ideas about the topics being taught at the moment on various subjects with the rest of the class.
- ❖ Students should be made to understand that the Internet technology is a very powerful tool to explore the world around them.

