

Fig. 6.2 Different web pages of a website

INTRODUCTION TO HTML

First, **HTML** stands for **Hyper Text Markup Language**. It is a simple text format to create web pages. A web page contains text, pictures, video, audio, etc. So, we can create a web page using the HTML.)



Hyper Text refers to any computer based system that uses links on a web page. When such links are clicked, the user reaches on a specific page. Using such hypertext documents, a user can move from one web page to another. Such online documents are viewed in web browsers like Google Chrome, Mozilla Firefox, etc.

Features of HTML

Some important features of HTML are:

1. HTML is a markup language and not a programming language.
2. HTML is not a case sensitive language.
3. This markup language consists of a set of markup tags.
4. These markup tags in HTML are used to describe the data and the purpose of such data on web pages.
5. HTML is purely a desktop publishing solution and not a word processing tool.
6. A collection of HTML tags are used to design the page layout and hyperlinks.

WEB BROWSERS THAT SUPPORT HTML 5.0

In the present time, most of the modern day browsers support HTML. Some of the popular browsers include – Internet Explorer, Google Chrome, Netscape Navigator, etc.



Google Chrome ✓



Netscape



Internet Explorer ✓

Fig. 6.3 Some popular web browsers

HTML TAGS

HTML tags tell the manner in which a web browser displays the text, pictures, etc. of a web page. These tags are used to give instructions in a web page. >

Some important features of HTML tags are:

1. HTML tags contain keywords that are enclosed within the angular brackets i.e <>.
2. Usually, these tags are in pairs comprising of **Start** and **End** tags. For example, <U> and </U> respectively. Here, <U> is the start tag and </U> is the end tag.
3. You can also call **Start** tag as **ON** tag and the **End** tag is called as **OFF** tag.
4. When there are both **Start** and **End** tag in HTML tags, these are called **container** tag. But if no **End** tag is there or **OFF** tag is missing, it is called an **empty tag**.
5. If there is no difference in spelling, the case of the tags does not make a difference. So, <html> and <HTML> represents the same tag.
6. Any space between the tags does not affect the output in HTML.

STRUCTURE OF AN HTML DOCUMENT

An HTML document is also known as a **web page**. This document has two main parts – **HEAD** and **BODY**.

The **HEAD** section consists of **<html>**, **<head>** and **<title>** tags. The **BODY** section covers the **text**, **images**, **links**, etc. The content given in the **BODY** section is displayed in a web page. Some common tags for **BODY** section includes **<body>**, **<h1>**, and **<p>** tags.

The basic syntax of an HTML document:

```
<html >
```

```
<head >
```

```
</head >
```

```
<body >
```

```
</body >
```

```
</html >
```

GETTING STARTED WITH HTML

You can start working on an HTML document with two basic tools. These tools are **HTML editor** to create the web pages and a **browser** required to view these web pages.

Working on HTML Editor

Basically, there are two types of HTML editors — **WYSIWYG editor** and **text editor**.

WYSIWYG Editor: The word **WYSIWYG** stands for **What You See Is What You Get**. This editor provides a graphical user interface that enables to create web pages without using the HTML tags. Some commonly used WYSIWYG editors are **Adobe Dreamweaver** and **MS Expression Web**.

Text Editor: This type of HTML editor requires the knowledge of HTML tags to create a web page. For example, **Notepad**, **Wordpad**, etc.

Create and Save a Web Page Using an HTML Editor (Practical) Important

In order to create a web page using the Notepad, follow the steps given below:

1. Click the **Start** button and go to **All Programs** option.
2. Choose the **Accessories** folder from the **All Programs** menu.
3. Navigate and select the **Notepad** from **Accessories** menu.
4. Start typing the HTML document.

5. Go to File option in the Notepad window.
6. Select the Save As or Save option from the File menu.

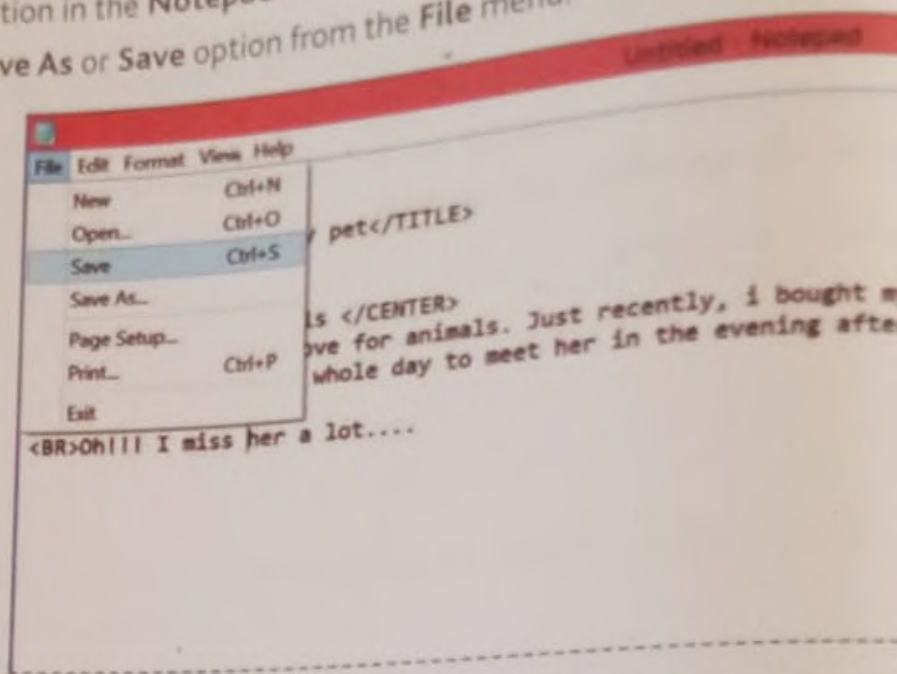


Fig. 6.4

7. The Save As dialog box appears on the screen.



Fig. 6.5

8. Go to the desired location where you want to save the file.
9. Type the name of the file in the File name textbox. Give the file name with **.html**. For example, file name is **my pet.html**

TITLE Element

The <TITLE> element specifies the title of the document. It is present inside the <HEAD> parameter of the <head>. There is only one <TITLE> tag in an HTML document.

```
<HTML>  
<HEAD>  
<TITLE> GARDEN OF ROSES </TITLE>  
</HEAD>  
</HTML>
```

Output (Practical)

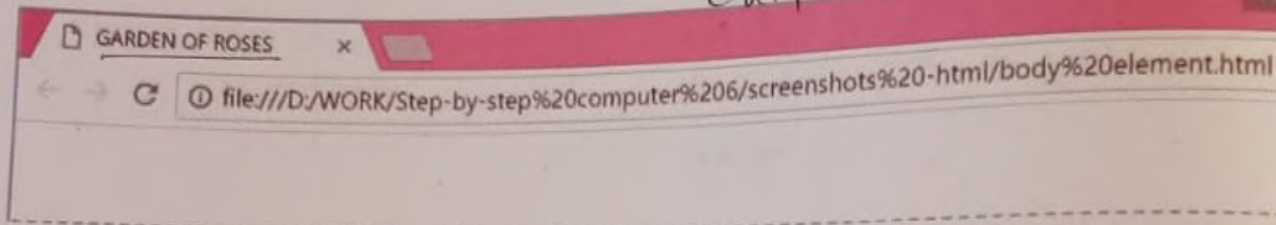
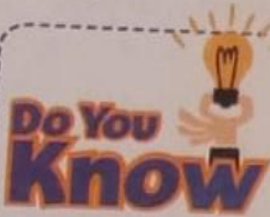


Fig. 6.7



Parameters are the tags that are used within a container tag. Only have parameters. For example,

```
<HTML>  
...tags... Parameters  
</HTML>
```

The properties associated with a given tag is called the **attribute** of an element. Container empty tags can have attributes.

BODY Element

The <BODY> shows the data to be displayed in the web browser. It may be a text, image is used to make a website more attractive. The BODY element contains many attributes. **BACKGROUND, BGCOLOR and TEXT.** Let us discuss them.

Background

The Background attribute allows you to set an image as background for a document. It URL of the image to be used for background. The file extension of the image should be **Joint Photographic Experts Group** or **.gif** (i.e. **Graphics Interchange Format**). The f

extensions are very small as compared to other file formats like .bmp. Thus, small file size facilitates easy and faster download of the web page. For example,

```
<HTML>
<HEAD>
<TITLE> BEAUTIFUL NATURE </TITLE>
</HEAD>
<BODY BACKGROUND = "flowers.jpg">
</BODY>
</HTML>
```

Bgcolor ✓

The BGCOLOR attribute helps to set the colour to the background. The three major colours are Red, Green and Blue. Combination of these major colours brings out different colours. The value given for BGCOLOR is like #RRGGBB.

For example,

```
<HTML>
<HEAD>
<TITLE> COLOURFUL SKY </TITLE>
</HEAD>
<BODY BGCOLOR = "#4657A7">
</BODY>
</HTML>
```

Output (Practical)



Fig. 6.8

Output (Practical)



Fig. 6.9

Text

You can change the colour of the text in the document using the **Text** attribute. These colour values be same as that of BGCOLOR. For example,)

```
<HTML>
<HEAD>
<TITLE> COLOURFUL SKY </TITLE>
</HEAD>
<BODY BGCOLOR = "Red" Text="Yellow">
Beautiful sky shows many colours
</BODY>
</HTML>
```

Output (Practical)

text
yellow

BGCOLOR
= Red.

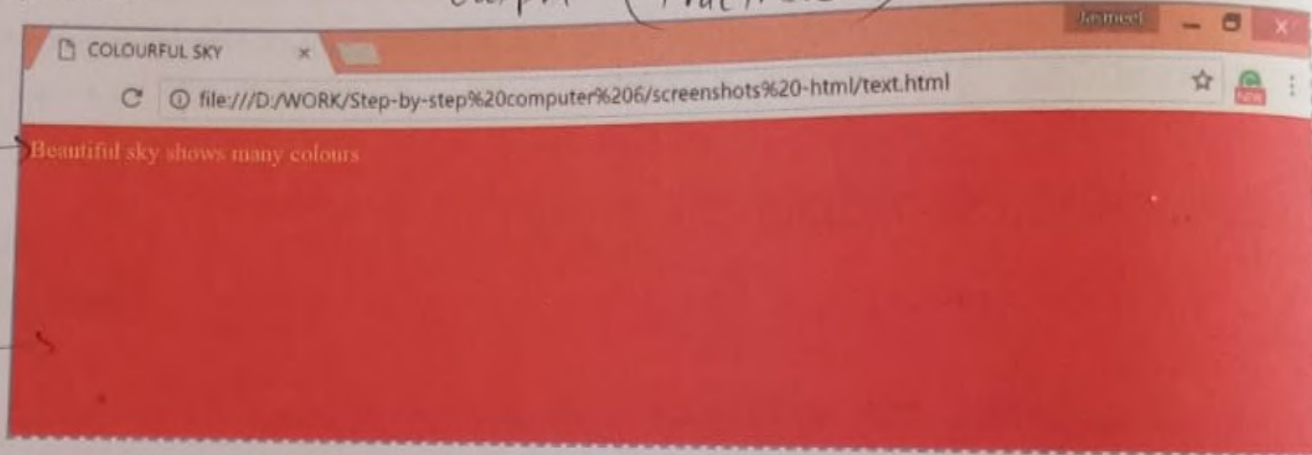


Fig. 6.10

HEADINGS IN HTML

In HTML, you can use **header element** to show a text as heading on the web page. Heading look different from the other text as it is bold. Header element has the heading tag with the syntax – `<Hn>....</Hn>`. Here, **n** can take the value from **1 to 6**. Heading 1 is the most important and look prominent on the web page. The sixth heading shows the least important text and it is smallest than other headings.

Important things to remember while using heading tag:

1. The text entered within the heading tag will appear bold and prominent.
2. A blank line is shown above and below each heading.
3. As the number increases in the heading tag, the importance and size of the heading in decreases.

For example,

```
<HTML>
<BODY>
<P align = "center"> Population explosion in Indian cities
<P> The escalating population growth is greatly responsible
large scale depletion of our natural resources </P>
</BODY>
</HTML>
```

output (Practical)

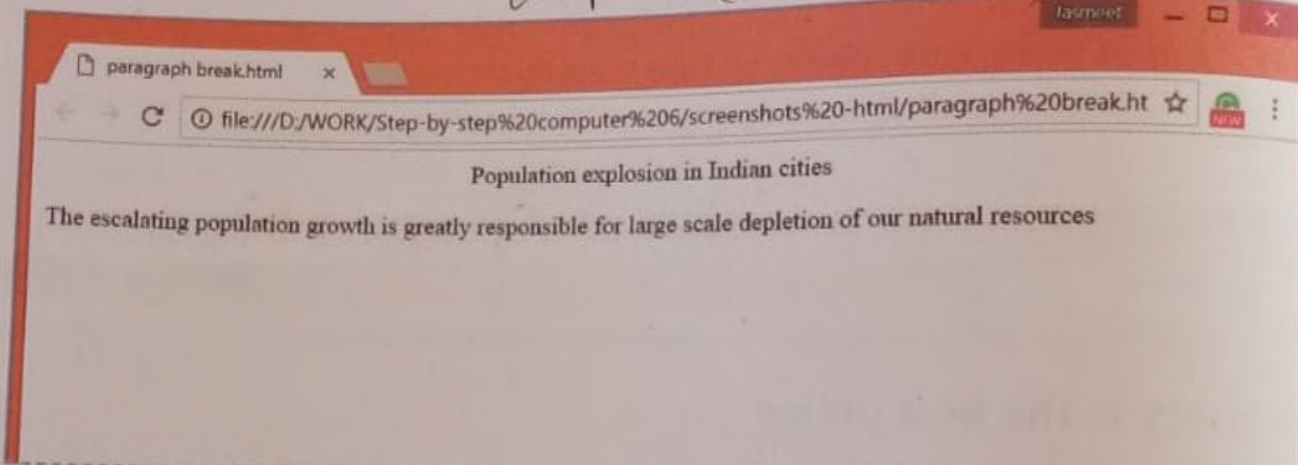


Fig. 6.12

In order to insert a break in one line,
 tag is used. Similar to <P> tag,
 can also be used as a container tag as well as an empty tag.

For example,

```
(
<HTML>
<BODY>
<BR> Population explosion in India
<BR> Escalating population and limited resources
</BODY>
</HTML> )
```

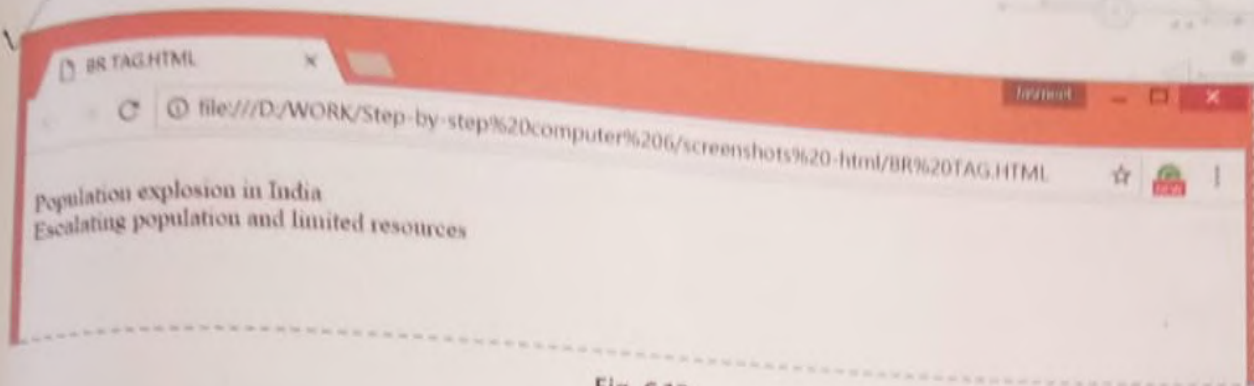



Fig. 6.13

FORMATTING TAGS

You can give style to a text in an HTML document. In order to format text, different tags are provided by the HTML.

Bold

In order to make the text bold, you can use tag.

For example,

```
<HTML>
```

```
<BODY>
```

```
<P> I live in East Delhi near <B> Akshardham Temple </B> and it  
is really magnificent.
```

```
</BODY>
```

```
</HTML>
```

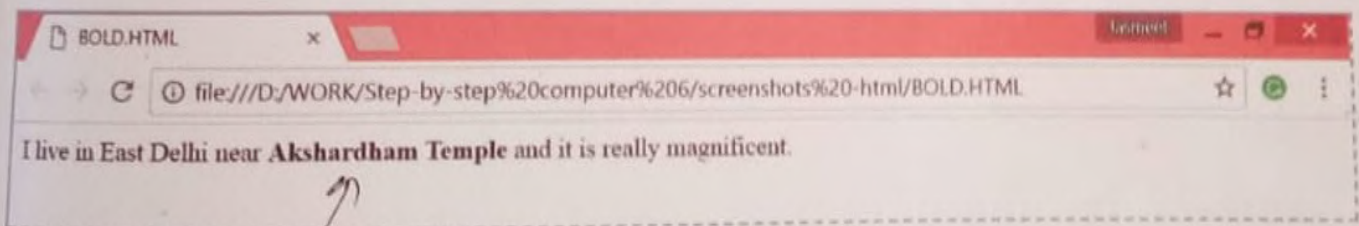
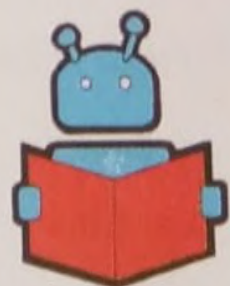


Fig. 6.14

Bold.



Italic <I>

<i> tag is used to make the text italic.

For example,

```
<HTML>
```

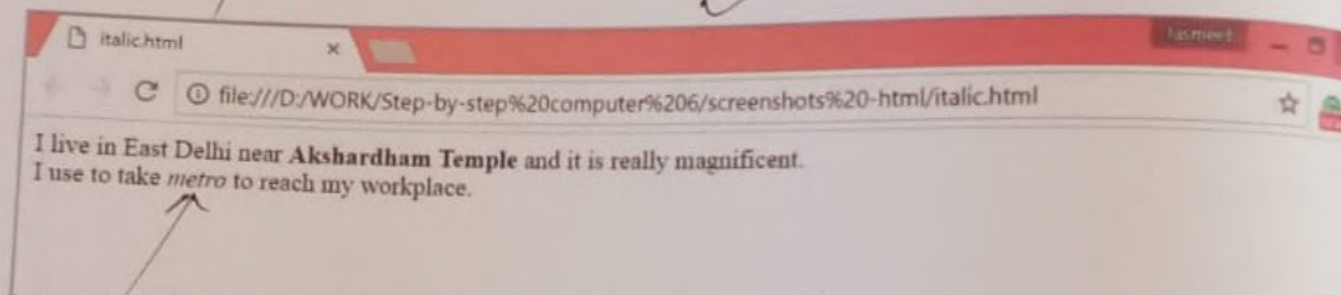
```
<BODY>
```

```
<P> I live in East Delhi near <B> Akshardham Temple </B> and  
is really magnificent.
```

```
<BR> I use to take <I> metro </I> to reach my workplace.
```

```
</BODY>
```

```
</HTML>
```



Italic

Fig. 6.15

Underline <U>

The <U> tag is used to make the text underlined. If there is space between the words, then the space gets underlined.

For example,

```
<HTML>
```

```
<BODY>
```

```
<P> I live in <U>East Delhi</U> near <B> Akshardham Temple </B>  
and it is really magnificent.
```

```
<BR> I use to take <I> metro </I> to reach my <U> workplace
```

```
</BODY>
```

```
</HTML>
```



6 An Introduction to HT

Objective

- Web page, website and web browser
- Introduction to HTML programming and its features
- Basic structure of a HTML document
- Getting started with HTML document
- Create and save a web page using an HTML editor
- Open a web page on a web browser
- Basic HTML tags
- Headings in HTML
- Use of <P> and
 tags
- Formatting tags

WEB PAGE, WEBSITE AND WEB BROWSER

You can view any online document present on World Wide Web in software called **web browser**. Firefox, Google Chrome, Internet Explorer or Edge, Apple's Safari are some popular web browsers. Documents that are displayed on web browsers are called **web pages**. A **website** is a collection of web pages that are connected in various ways.)

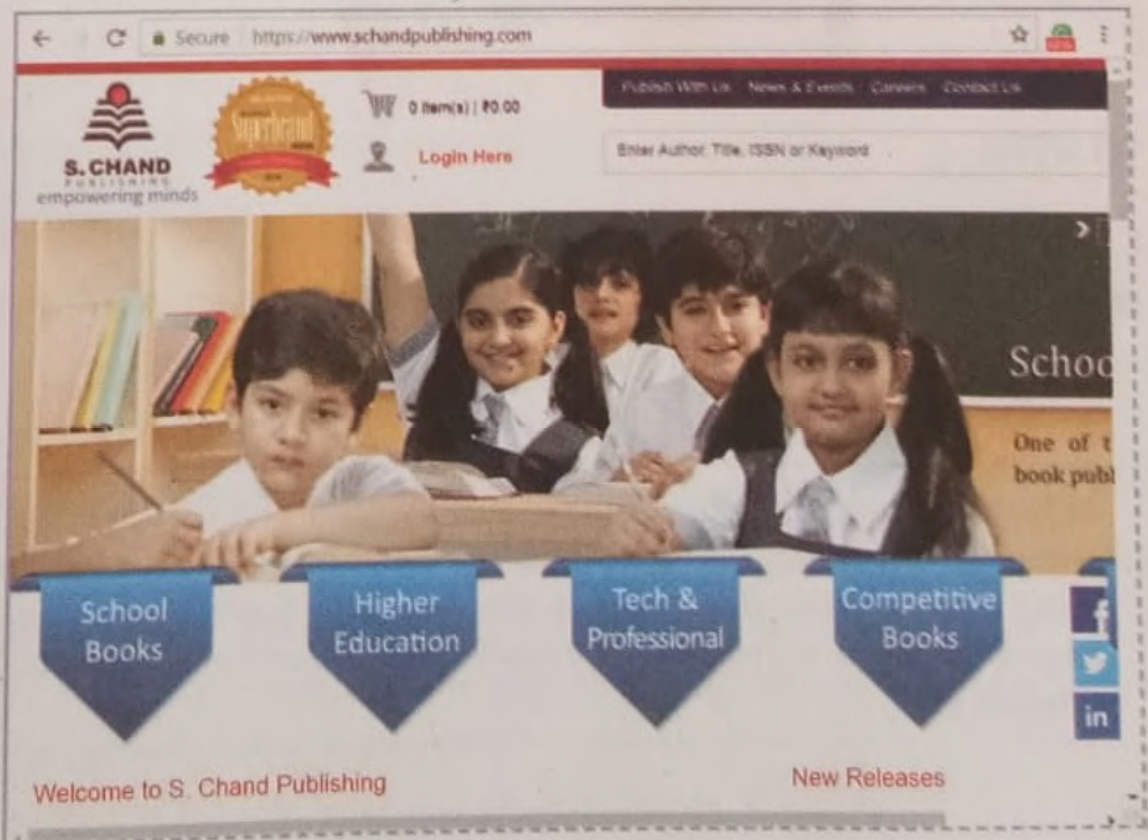
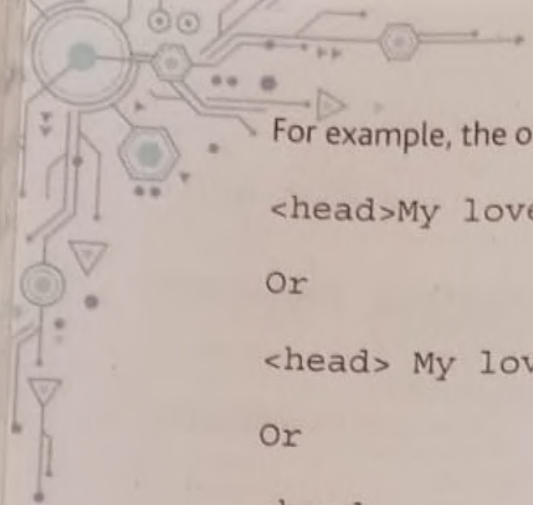


Fig. 6.1 A website



For example, the output is same for the following:

```
<head>My lovely memories</head>
```

Or

```
<head> My lovely memories </head>
```

Or

```
<head>
My lovely memories
</head>
```

- 7. When you use more than one tag or when tags are used in combination, a close the most recent tag first.

For example, when you use tags to make the text bold and italic, like

```
<I><B> EARLY MORNING </B></I>
```

Correct way

```
<I><B> EARLY MORNING </I></B>
```

Incorrect way

HTML ELEMENTS

An HTML element has a Start tag, the element content and an End tag. The matter the **End tag** is called the **element tag**. (For example,

```
<Head1> Welcome to Your New Computer Class </Head1>
```

Start Tag

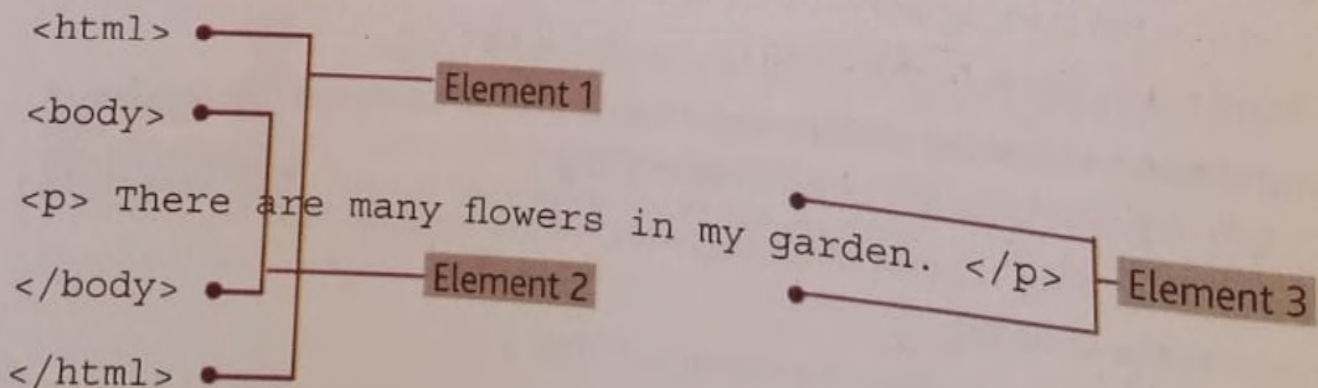
Element content

End Tag

The HTML elements determine the structure and behaviour of different parts of an

NESTED HTML ELEMENTS

Most of the HTML elements can have other HTML elements. These elements are called **elements**. For example,



10. Click the **Save** option in the **Save As** dialog box. When you double click the file icon at the location where your file is saved, the HTML document opens on the default web browser.

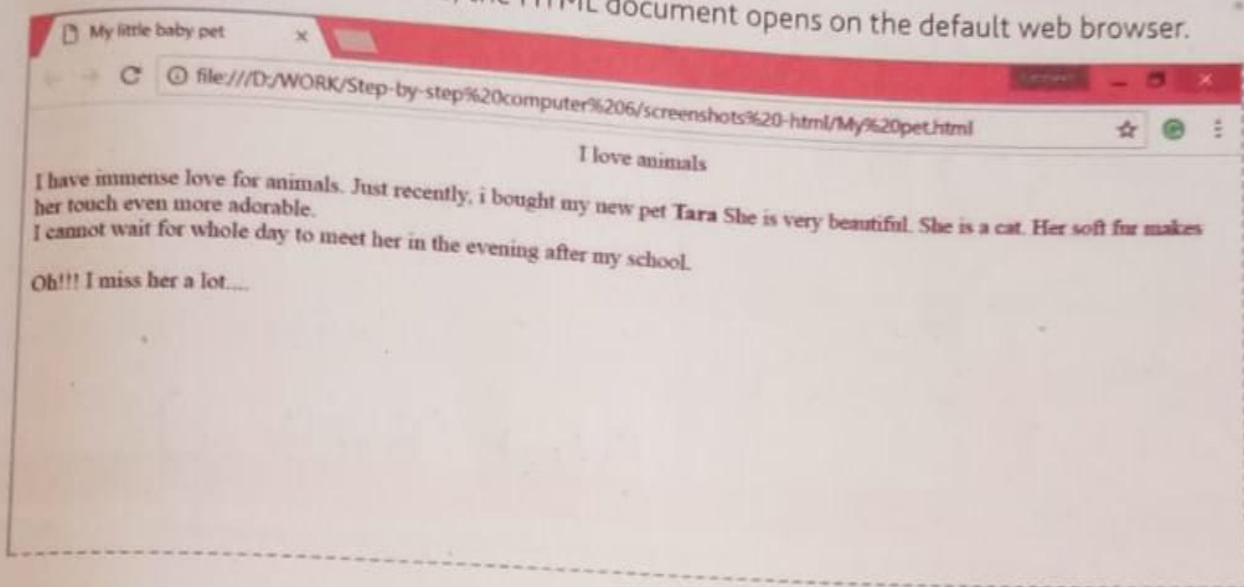


Fig. 6.6

Opening a Web Page on a Web Browser

Navigate the location where you have saved your file and select the desired file. The selected web page opens on your default web browser.

BASIC HTML TAGS

HTML Element ✓

(HTML tag indicates that the document shown on web browser is an **HTML** document. It is a container tag with both the start and the end tag. All other tags like `<head>`, `<body>`, `<p>`, etc. are present inside the `<html>`.)

`<HTML>`

`<HEAD>`

`</HEAD>`

`</HTML>`)

HEAD Element ✓

(The `<HEAD>` specifies the heading of the document shown on the title bar of the browser window. It gives information about the document. It is also a container tag.)

```
ple,  
HTML>  
BODY>  
H1> Honesty is the best policy </H1>  
H2> Honesty is the best policy </H2>  
H3> Honesty is the best policy </H3>  
H4> Honesty is the best policy </H4>  
H5> Honesty is the best policy </H5>  
H6> Honesty is the best policy </H6>  
BODY>  
HTML> )
```

Output (Practical)

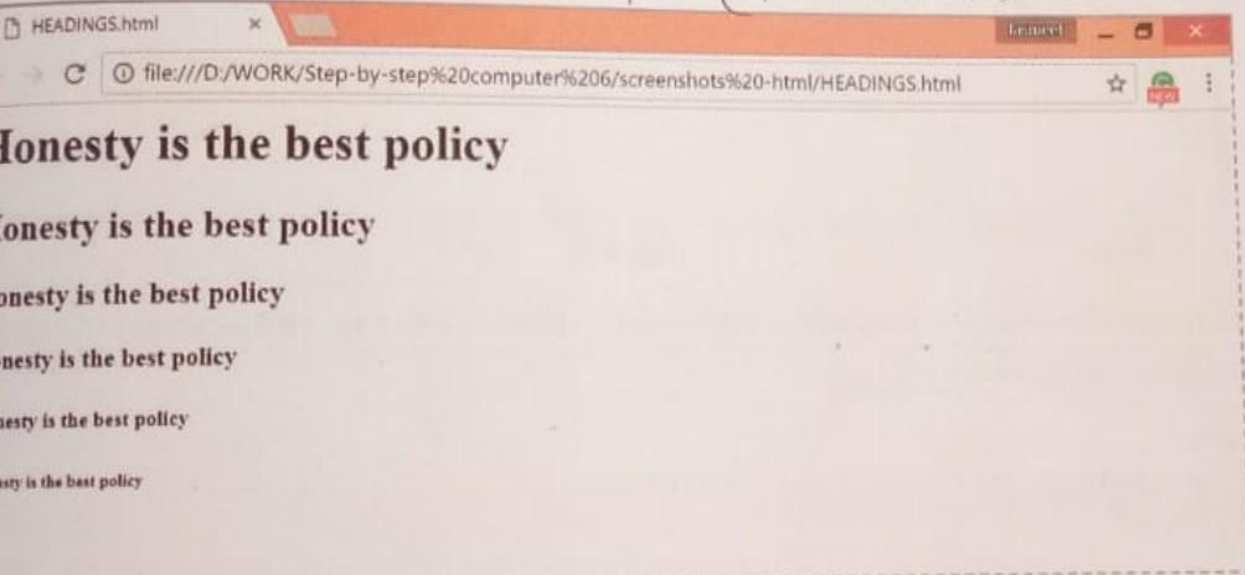


Fig. 6.11

and
 TAG

White spaces are not important. In order to insert a break in the line and in paragraph, two HTML tags — <P> and
.

<P> element gives break between the lines or extra space in the beginning of a paragraph. The paragraph tag that comes under paragraph tag is **align**. It gives different alignment options to set a paragraph. The paragraph starts on the **left**, **right** or **centre** of the web page. When align attribute is not given, the paragraph starts on the left side of the web page. The Paragraph tag can be used as a container tag or as an empty tag.

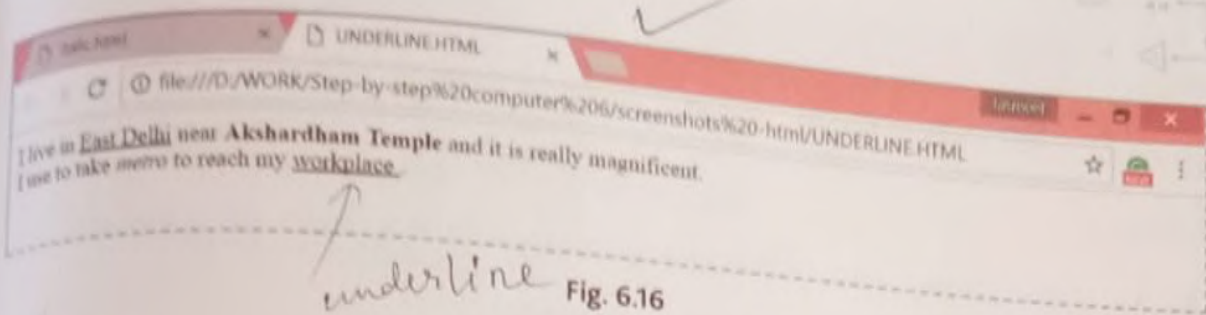


Fig. 6.16

Center <CENTER>

In HTML, the text can be placed in the centre using the <CENTER> tag. The text to which <CENTER> is applied, will appear in the centre of the row.
For example,

```
<HTML>
<BODY>
<CENTER> WELCOME TO THE YEAR END STOCK CLEARANCE SALE
<BR> AT YOUR NEAREST STORE </CENTER>
<BR> Avail heavy discount offers. Terms and conditions apply.
</BODY>
</HTML>
```

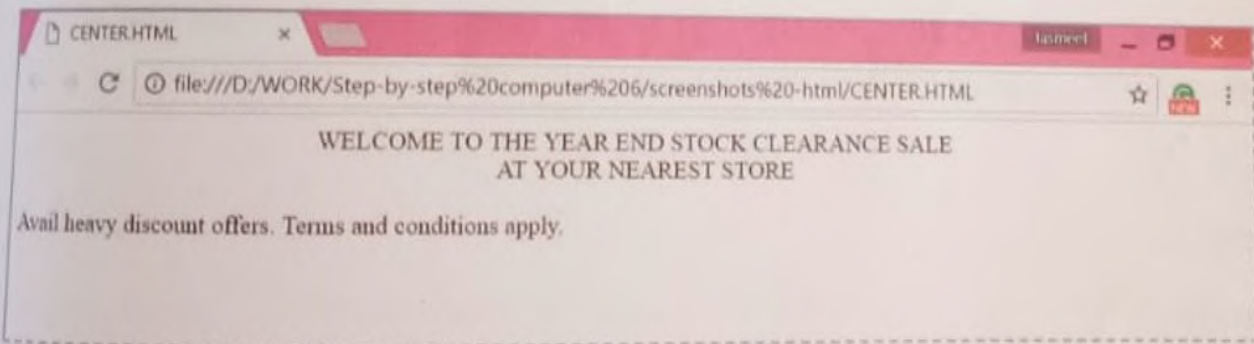


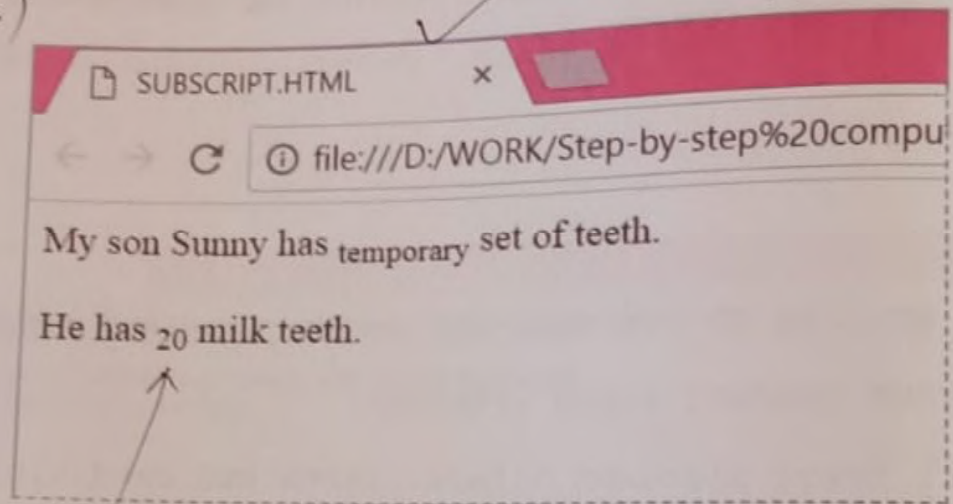
Fig. 6.17

Subscript <SUB>

The text placed between the _{...} tags appears slightly below the usual level of the text. Thus the text between these tags is smaller in font size than the normal text.

For example,

```
<HTML>
<BODY>
<P> My son Sunny has <SUB>temporary</SUB> set of teeth.
<P> He has <SUB>20</SUB> milk teeth.
</BODY>
</HTML>
```



subscript

Fig. 6.18

✓ Superscript <SUP>

The text placed between the ^{...} tags appears slightly above the usual level of the text. Text between these tags is smaller in font size than the normal text.

For example,

```
<HTML>
<BODY>
<P> My son Sunny has <SUP>temporary</SUP> set of teeth.
<P> He has <SUP>20</SUP> milk teeth.
</BODY>
</HTML>
```

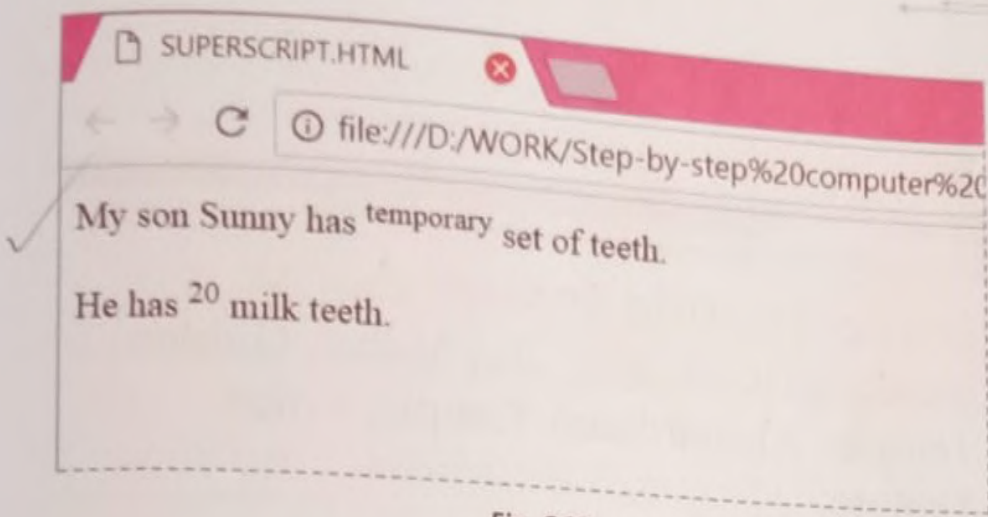



Fig. 6.19

Tag

change the colour, size and type of font for a piece of text. It is a container tag. It has three attributes - FACE, COLOR and SIZE.

FONT

FACE = "NAME OF THE FONT"

COLOR = "COLOUR NAME"

SIZE = "TEXT SIZE" >....

FONT>

le,

TML>

ODY>

FONT FACE = "VERDANA" COLOR = "RED" SIZE = "12">

Some exciting Indian tourist destinations are:

FONT>

FONT FACE = "TIMES NEW ROMAN" COLOR = "BLACK" SIZE = "12">

Mahal, Golden Temple, Akshardham Temple, Lotus Temple.

FONT>

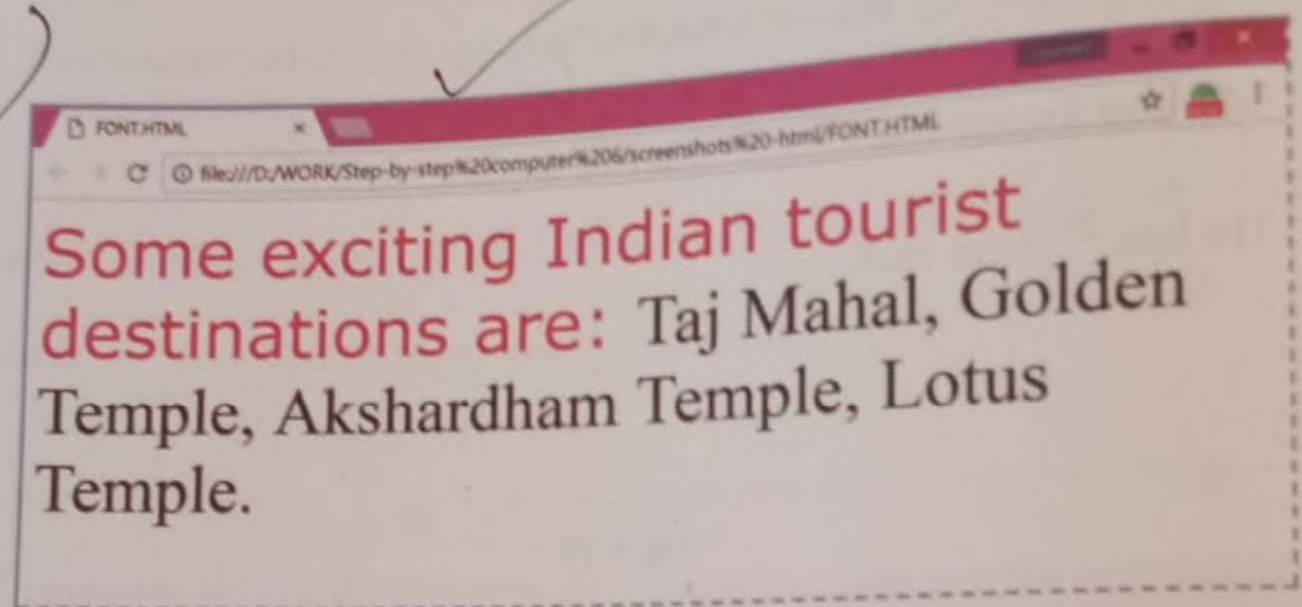
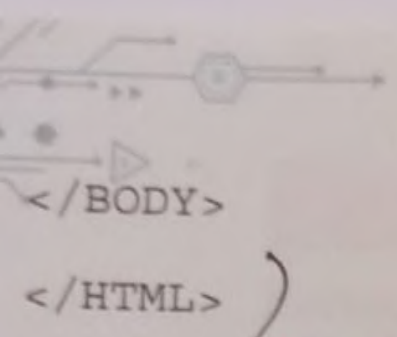


Fig. 6.20

Timothy John Berners-Lee

Timothy John Berners-Lee or Sir Tim Berners-Lee was a British computer scientist. He is well known as the inventor of the World Wide Web. He received a knighthood in 2004 by Queen Elizabeth II of the United Kingdom. Also he was awarded the inaugural Millennium Technology Prize by the Finnish Technology Award Foundation. He was working as a software engineering consultant at CERN in 1980. At CERN, he developed a program that could store information in files that were in contained connections (or links) both within and among separate files. This technique was later known as hypertext. In 1989, he proposed the creation of global hypertext document system. was to provide an ability to share results, techniques, and practices of his r exchanging their e-mail. Moreover, Berners-Lee wrote the software for the fu the Web browser.)