



## TUTORIAL - PART 1

Tutorial by Philemon Yalamu  
<http://www.artech.com.pg/>

### 1. Introduction

The internet is vast and is a rapidly growing medium of communication today. On it there are endless opportunities both good and evil. Having considered the good sides of the internet, anything you may wish to do is possible. It is indeed very effective with the delivery of various information and is probably the cheapest form of mass media communication unlike other media methods.

Before I begin, I would like to make mention of the primary aim of this tutorial. Due to numerous requests by my followers who'd like to learn how to code web pages, I have written this tutorial. I will present this in the form of hands on exercise which would take you through various steps to code from scratch. I hope it will give a quick rundown of all you need to know to get you started coding your websites. I will demonstrate using the windows platform, using applications that are used on any windows computer.

**NOTE:** What you will learn here is not everything coding is concerned. I will only be showing you the basics to start you off. If you are an intermediate or advance web developer/ coder, this wouldn't be for you as it only aims to assist those who wish to learn coding from the start. As, always, feel free to send me comments or critiques if you think you should. Use the details at the end of this tutorial.

### 2. Preview of what we're going to create

We are going to do a very simple website design comprising various web pages. The general layout of our work should look like the sample provided below. Though simple, it will give you the idea of how all those components work and how they're linked together to create a working, clickable web pages able to respond to your mouse clicks. By the way, we're not going to look at the dynamic pages as yet since this is a basic tute to kick start your coding exploration and take you to the back-end approach to developing your website. Here's what we're going to develop through our simple codes.



**REMINDER:** Because the tute is long, I've broken it down into two parts. This is the first part.

## Overview

By the completion of this tutorial, you should be able to design a website using codes from scratch. Throughout the tutorial you will cover some of the things such as;

- **The applications to be used in developing your basic website**
- **The html skeleton and html tags**
- **Coding web pages (adding images, texts, titles etc..)**
- **Coding web forms & Drop-down menus**
- **Styling web pages using Cascading Style Sheets (CSS)**
- **Testing and Previewing your web pages**
- **Controlling file sizes for your web assets (intro) [more to graphic design]**

### 3. Coding your pages

Web pages are built based on the hyper text mark-up language (html). To be a web developer or designer means you have to learn the basics of html to push you further. Here, we will start by exploring the bases on which a web page is built on. We will start by looking at the html skeleton (*as I called*)

#### 3.1 The Applications

Before we start writing those codes, let me introduce the two software programs we will be using throughout our tutorial. The two applications are;

1: Internet Explorer



[*though you can use other browsers as well if you have*]

2: notepad++



Download link: <http://notepad-plus-plus.org/downloads/>

#### 3.2 Html Skeleton

The html skeleton, which I referred to are the necessary building codes of an html document. Without them, your web pages wouldn't be talking well with the browsers. By the way, browsers are application(s) which allow(s) you to view web pages such as the Internet Explorer, Mozilla Firefox or Google Chrome, to name a few. Let's leave those talks and start our coding.

Our html skeleton should be as follows. *Now what are you waiting for, start typing your codes;*

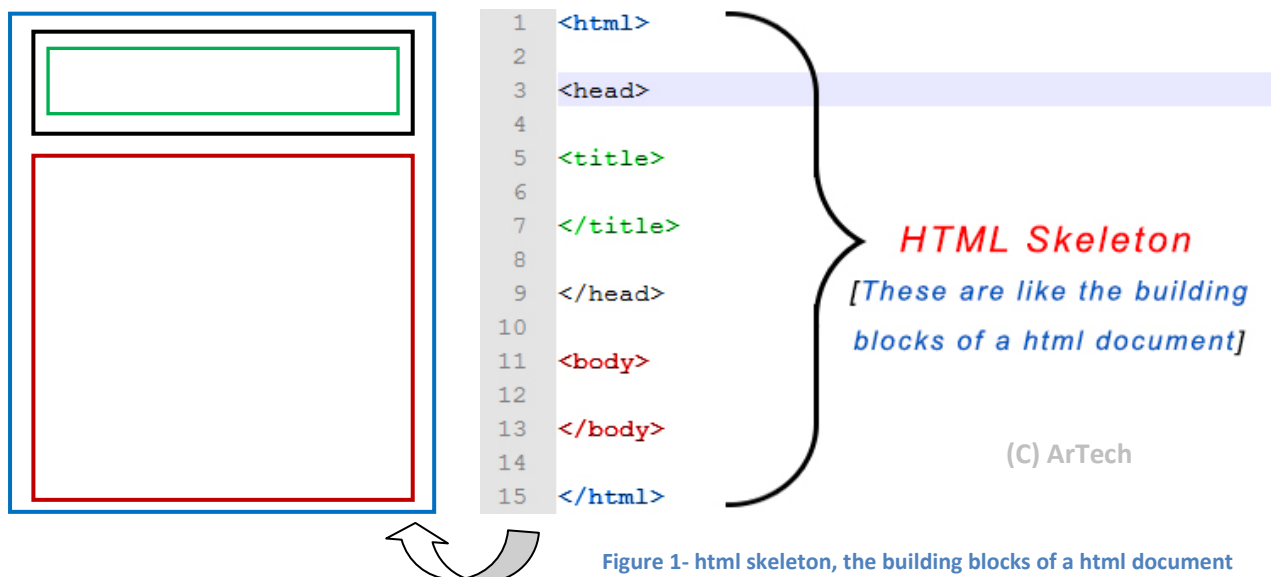


Figure 1- html skeleton, the building blocks of a html document

As structured above, start **notepad++** and type those html tags. Don't forget the wraps < and > like in tag **<html>**.

Once you typed the above lines of codes (*html tags*), save the file. Within notepad++, go to **File>Save As** and save the file as **index.html** within a folder on your desktop.

This will be our home page or the main page which users will be brought into when accessing your page.

**IMPORTANT:** Save all your working files in **ONLY ONE LOCATION/DIRECTORY**. For this exercise, you should be using the **webDesign\_tute** folder which comes with this tutorial. In that folder, there are various assets for you to use. That is where you save your index.html file and css file which you will create in **section 4.4 Specifying external CSS**.

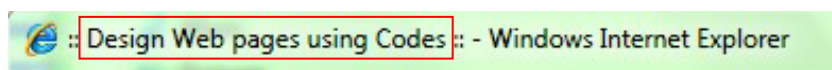


### 3.3 Specifying page Title

The next thing after you create your html skeleton and saving your html document is to specify a title to your page. For this part, you should go back to the file we created earlier (**index.html**). View it within notepad++, find the line which has the open and close **<title>** tag. Between the open and close tags is where you type in the title of your page. For the exercise here, let's type in **"Design Web pages using Codes"**, without the quotes;

**<title> Design Web pages using Codes </title>**

You will see the result in the title bar of your web browser like the one below which is displayed in Internet Explorer.



### 3.4 Specifying external CSS

Now let's create a link to an external cascading style sheet to control our layout later on. Just to make mention, there are three common ways to use CSS in your web pages. Those three include; the in-line, internal and external CSS. I am not going to talk about all of them in this tutorial but we are going to use the external CSS which is why we will create a link to that CSS file in this section of the tutorial.

Back to the index.html file (*within notepad++*) go to one line before the **</head>** tag and type this line of code down.



**<link rel="stylesheet" type="text/css" href="styles.css" />**

It should be something like the sample shown below;

```
<head>

<title>:: Design Web pages using Codes ::</title>

<link rel="stylesheet" type="text/css" href="styles.css" />

</head>
```

What we did was we created an external link to a **Cascading Style Sheet** file called **styles.css** which we will create in **section 5- Styling web pages** where all the styling controls will be contained.

At this stage, if you go to the **index.html** file in your browser and press F5 to refresh, you'll see nothing shown in the content except for the page title within the browser's title bar.

### 3.5 Adding the DOCTYPE Declaration

A **<!DOCTYPE>** declaration is usually the code that **MUST** be placed at the very beginning of any HTML document, prior to the **<html>** tag itself. This tag is considered not an HTML tag however an instruction to the web browser telling it of what HTML version the page is written in.

There are various versions of html so as the web and so in particular with HTML 4.01, the **<!DOCTYPE>** declaration refers to a DTD, because HTML 4.01 was based on SGML. The DTD specifies the rules for the markup language, so that the browsers read out the content correctly.

If you further do website and decides to use HTML5, it does not need a reference to a DTD because HTML5 is based on SGML.

**AS A RULE:** Don't Forget to add the **<!DOCTYPE>** declaration to your HTML documents, so that the browser knows what type of document to expect.

Consequently, we do not want to miss this tag so I want you to copy the line of text below into your **index.html** document and place it at the very first line, before the start/open **<html>** tag.



```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

So your placement of the above code should be placed as follows;

```
1 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
2   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
3
4 <html>
```

Next, add the following line of code into the start **<html>** tag;



```
xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en"
```

You should now have your new **<html>** tag as follow.

```
1 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
2   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
3
4 <html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">
5
6 <head>
```

The next section would take you through adding your contents, which also include adding additional html tags to the skeleton structure.

Well, this is the moment I believe you are waiting for - to see your codes come alive in the browser.

### 3.6 Adding in the Contents

Html has various other codes which you can find time to discover yourself. I will not go over those. At the end of this tutorial, I've provided some useful links for you to find all those useful codes I'm referring to. For now, let's look at the codes which will help us to create our simple web page.

In this section, you are going to add texts, images and look at other html tags to achieve these goals.

#### 4.5.1 Adding Headings

We use the `<h1>` to `<h6>` tags to specify headings for our contents. `<h1>` and `</h1>` is the largest size and `<h6>` and `</h6>` will output the smallest font. You can test this to find out yourself.

Within the body tag `<body>` **HERE** `</body>` type the open `<h3>` & close `</h3>` tags and place your header within it. See demonstration below to do yours, else you can follow along with this tutorial to get a feel.

```
14 <body>
15   <h3>WELCOME TO MY WEBSITE</h3>
16 </body>
```

#### 4.5.2 Adding paragraphs

To add paragraphs, we use the open/start `<p>` and close/end `</p>` tags. Now, within the body tag `<body><h3> </h3>` **HERE** `</body>` type the open `<p>` & close `</p>` tags and place your texts within it.

```
14 <body>
15   <h3>WELCOME TO MY WEBSITE</h3>
16   <p>
17     Welcome to my humbled website. I am pleased to present
18     to you all the basic details about my company comprising
19     members namely; me, myself and I. Though we are three
20     people running this company, we all share one common
21     feature and that is we share one mind and body. Please,
22     visit our blog to learn more about some of our
23     professional affiliates.
24   </p>
25 </body>
```

### 3.7 Adding banners to the web page

I'm sure you don't want to create a website with plain text. Adding image banners, either static or dynamic can give extra experience to your users. In this section, you are going to insert your banner. I have prepared the header of this tutorial as the banner to be used in this exercise. Find it in the "images" folder, within the "webDesign\_tute" main folder. Now let's insert the banner. We are going to use the paragraph `<p>` and `</p>` tag to

temporarily store the banner. Later, when we go into styling with CSS, we will replace with another tag. Inside notepad++, copy the line of code below into your *index.html* file.



```
<p>  </p>
```

Place the above line straight after the open/start <body> tag and before the heading <h3>...</h3> tags. See sample below to assist.

```
14 <body>
15 
16 <h3>WELCOME TO MY WEBSITE</h3>
```

### 3.8 Adding Footer

Usually a footer contains information such as the Copyright information and the latest update date to give viewers confidence of the status of your website. Let's add the footer now. Again, we are going to use a paragraph <p> and </p> tag to temporarily store the footer information. This will be replaced when CSS is in command of the layout.

Add the open/start <p> tag before the closing </body> tag. Inside that, place your footer information. Use the preview below to give you some tips.

```
21 <p>
22 Copyright (C) 2013, ArTech - http://www.artech.com.pg/ || Last Updated: 4th November 2013
23 </p>
24 </body>
```

### 3.9 Adding Forms

Time to add form to our web page. Forms are essential in today's web content as it allows your users to interact with your website. Unfortunately, as this is a Free tutorial, I am not going to cover in detail how to make your forms work however, I will show you how to code them so they display on your web page. Forms can be used in various ways such as in registration, authentication, searches and there's other ways you can integrate them into.

For this section, we are going to add a search form which will allow our users to search for information within our website. To do this we'll use the open/start <form> and close/end </form> tags. Now copy or type the line of code below to your *index.html* file in notepad++. Place it right below/ after the banner code <p> <img /> </p> tags and above/before the <h3> and </h3> tag of the content paragraph.

Code;



```
<form>
    <strong>SEARCH</strong>
    <input type="text" size="15" />
    <input type="submit" value="GO"/>
</form>
```



Your code entry should look similar to the one below;

```
15 <p></p>
16 <form>
17     <strong>SEARCH</strong>
18     <input type="text" size="15" />
19     <input type="submit" value="GO" />
20 </form>
```

### 3.10 Wrapping Contents in a Div

After all these codes, we want to control everything within some kind of a container so that we can easily manipulate them by adjusting parameters of that container. This now takes us to consider implementing Cascading Style Sheets (CSS) to our web page. We will now add another html tag known as the open/start `<div>` and close/stop `</div>` tags.

For this section, you are going to add the open/start `<div>` tag straight after the open/start `<body>` tag and the close/ end `</div>` tag straight before the close/ end `</body>` tag.

Here's how it should look like;

```
14 <body>
15 <div>
16     <p></p>
17     <form>
18         <strong>SEARCH</strong>
19         <input type="text" size="15" />
20         <input type="submit" value="GO" />
21     </form>
22     <h3>WELCOME TO MY WEBSITE</h3>
23     <p>
24         Welcome to my humbled website. I am pleased to present to you all the basic details about my
25         company comprising members namely; me, myself and I. Though we are three people running this
26         company, we all share one common feature and that is we share one mind and body. Please, visit
27         our blog to learn more about some of our professional affiliates.
28     </p>
29     <p>
30         Copyright (C) 2013, ArTech - http://www.artech.com.pg/ || Last Updated: 4th November 2013
31     </p>
32 </div>
33 </body>
```

## 4. Styling web pages with CSS

Before we continue further, let us start creating a style sheet to make our page look nice to the users' eye and of course ours too. We will start by creating a new file in notepad++ so switch to notepad++, go to **File>New** to create a new file.



This new file will hold all our CSS codes.

Before doing anything, let's save this empty file. Go to **File>Save As** and call this file **styles.css**. The name of this file has to be **styles.css** because remember in the beginning we created a link to an external css file within the head section of the html file. Now, when we create this **styles.css** file, it will communicate with the **index.html** file.

Let's put it that way, the html file (*index.html*) will hold the contents of our web page and the CSS file (*styles.css*) will hold controls to make our web page look nice. OK, enough of talking and we go straight to adding our first line of CSS codes.

**NOTE:** I am not going to go in detail of explaining every single line of CSS code to make you lazy; rather take you through hands on "*do-it*" and "*find-out*" approach so you should also do your research to help yourself understand even better.

Jump to notepad++ and select the CSS file, **styles.css**. Then enter the first line of code into this file as follows;

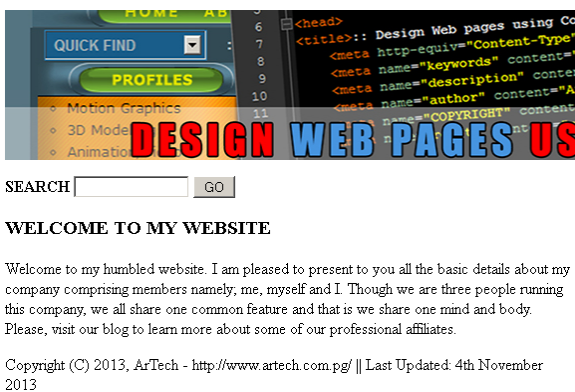


```
Body { background:#c0c0c0; font-family: verdana; font-size:10pt; }
```

In your notepad++, the code should look something like this;

```
1
2 body{background:#c0c0c0; font-family:verdana; font-size:10pt; }
```

Alright, what we did was we extracted the <body> tag within the html document and use CSS to control the background colour, the font face and the font size. The images below show the web page before the CSS was applied (*picture below-left*) and after adding the above CSS to the body (*picture below-right*).



*Ordinary html file without CSS*



*above CSS applied*

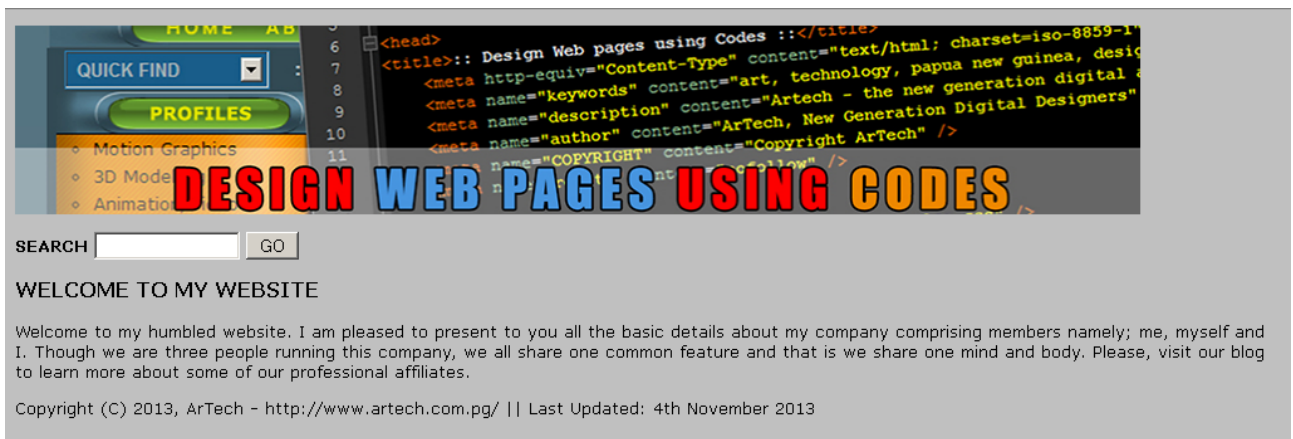
In this next step, we are going to control the div in html and make the page align well. If you look at the display of the web page, you would see that it needs a little more fixing especially the placement of the content. Right now, if you maximise the window you would see that the banner and the content paragraph does not align well. Paragraph would be a little longer than the banner. We can correct this by extracting the div from the <div> tag and use it to control the alignment of the page.

The good thing was that we created a container <div> which wraps around the entire content. This makes it easier for us to go back and insert layout controls in CSS to improve the look. Go to notepad++ and on the next line after the **body {css code }** copy and paste or type the following code down.

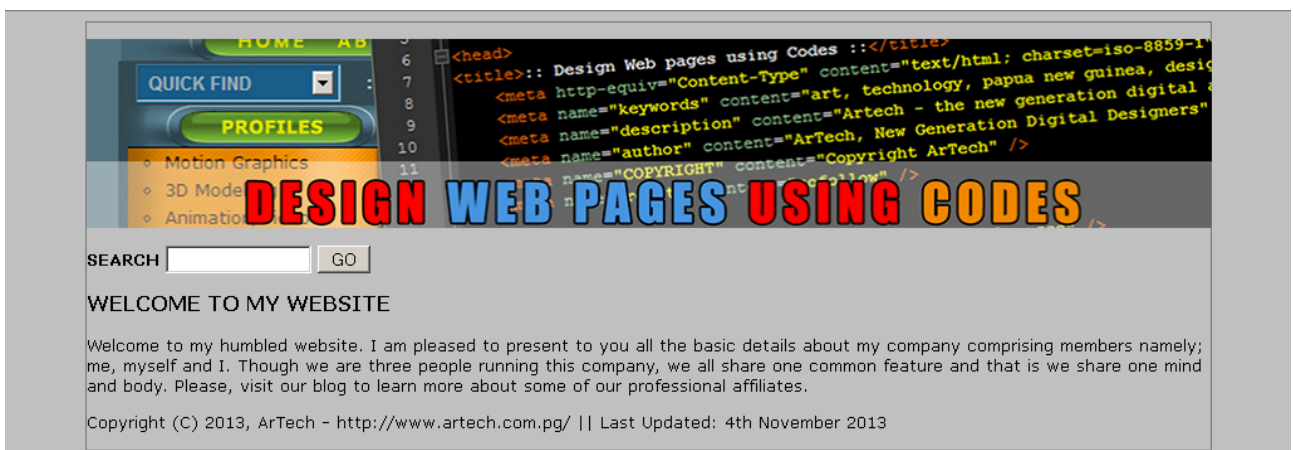


```
div {width:895px; height:auto; margin:0 auto; border:1px solid #777777; }
```





The above was the page **before** we manipulate the **div** in CSS and below is the result **after** adding the CSS attributes to the div. If you look at them, you would see that the above is positioned more towards the left whilst the bottom is centered and has a border around the content. Basically, we've controlled the layout that we've changed.



Your inserted code for the div should look like this;

```
2 body{background:#c0c0c0; font-family:verdana; font-size:10pt;}
3 div{width:895px; height:auto; margin:0 auto; border:1px solid #777777;}
```

We'll leave the CSS at that and come back to it later on.

For now, let's move onto the html file (*index.html*) and look at drop-down menus using the `<select>` and `</select>` tags. Go back to notepad++ and click on the index.html file. Use the tab within notepad++ to switch between the CSS file and the html file. For assistance in (if you're unsure of the tab in notepad++) see figure below.




Confirm that you are now on *index.html* and move onto the next section which will guide you to setting up the drop-down menu (sometimes regarded as the jump menu).

## 5. Adding the jump menu

Jump menu adds again interesting feature to your web page. If you have a lot of links on your page and want to group the important links to a single menu set, jump menus can be useful. It helps your viewers to easily access certain links to your site. Not only you may find it in this use but you can also use it in other times such as registrations, surveys & questionnaires etc.

For this tutorial, I will give you the basics of creating it but we aren't going to make the options work for now. Maybe in other later tutorials (*or if requests are made*) I can show you how to make them work using JavaScript. Anyways, let's talk away with JS for now and start with our **<select>** tag.

We are going to place the jump menu above the search form. Go to your html code and locate the line which holds the open/start **<form>** tag. Type the code below just above the **<form>** tag.



```
<select>
  <option value="#" selected="selected"> QUICK FIND </option>
  <option value="Link 1.html">Link 1</option>
  <option value="Link 2.html">Link 2</option>
  <option value="Link 3.html">Link 3</option>
</select>
```

Your code should look like the one below, everything now placed between the open/start **<select>** and the close/end **</select>** tags. You would realise also that we have another tag **<option>** and **</option>** which is the actual jump menus.

```
18
19
20
21
22
23
24
25
26
```

```
<select>
  <option value="#" selected="selected"> QUICK FIND </option>
  <option value="Link 1.html">Link 1</option>
  <option value="Link 2.html">Link 2</option>
  <option value="Link 3.html">Link 3</option>
</select>
<form>
```

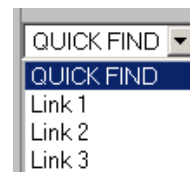
The outcome should look like the

Image on the right (1-when mouse is out)

and (2-when mouse is clicked);



1



2

That brings us to the end of first part of this tutorial. On the second part of this tutorial, I will take you through laying out your page with CSS and further create additional page(s) to make a website. We will then learn how to link each of the pages as well and adding extra style to it such as colouring the page making it visually appealing to our users' eye. We will also look at the comments tag **<!-->**; commenting each line so that we, as designers can be able to know what's happening throughout each line(s) of code.

Check out the full code for the **html** (*index.html*) file and the **CSS** (*styles.css*) file for this first part on the next page.

## 6. Full Source Code

HTML Source Code (index.html)


```
1 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
2 "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
3
4 <html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">
5 <head>
6 <title>:: Design Web pages using Codes ::</title>
7 <link rel="stylesheet" type="text/css" href="styles.css" />
8 </head>
9 <body>
10 <div>
11 <p></p>
12 <select>
13 <option value="#" selected="selected"> QUICK FIND </option>
14 <option value="Link 1.html">Link 1</option>
15 <option value="Link 2.html">Link 2</option>
16 <option value="Link 3.html">Link 3</option>
17 </select>
18 <form>
19 <strong>SEARCH</strong>
20 <input type="text" size="15" />
21 <input type="submit" value="GO"/>
22 </form>
23 <h3>WELCOME TO MY WEBSITE</h3>
24 <p>
25 Welcome to my humbled website. I am pleased to present to you all the basic details about my
26 company comprising members namely; me, myself and I. Though we are three people running this
27 company, we all share one common feature and that is we share one mind and body. Please, visit
28 our blog to learn more about some of our professional affiliates.
29 </p>
30 <p>
31 Copyright (C) 2013, ArTech - http://www.artech.com.pg/ || Last Updated: 4th November 2013
32 </p>
33 </div>
</body>
</html>
```

CSS Source (style.css)

```
1 /* CSS Tute by P.Yalamu */
2 body{background:#c0c0c0; font-family:verdana; font-size:10pt;}
3 div{width:895px; height:auto; margin:0 auto; border:1px solid #777777;}
4
```

## 7. More Tutes

For more of our Free tutorials, visit <http://www.artech.com.pg/pages/freeTutes.php> and check if there's one that fits your need.



**NOTE:** This tutorial takes you through the basics of creating web pages from scratch. You can acquire more skills or even perfect them using our commercial version of the tutorial on coding web pages as a beginner detailing step by step instructions in video. Video tutorial can only be downloaded based on request or purchased throughout our outlets (in Papua New Guinea). visit <http://www.artech.com.pg/> and get the address to send us your requests

- |                         |                            |                 |                       |                |
|-------------------------|----------------------------|-----------------|-----------------------|----------------|
| <b>OTHER TUTORIALS:</b> | + Digital Media Design     | + Web Design    | + Office Applications | + 3D Graphics  |
|                         | + Interactive Media Design | + Digital Video | + Digital Audio       | + 2D Animation |