

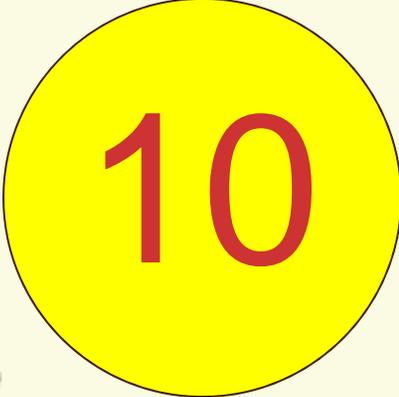
COMSC-030

Web Site Development- Part 1



Part-Time Instructor: Joenil Mistal

Chapter 10



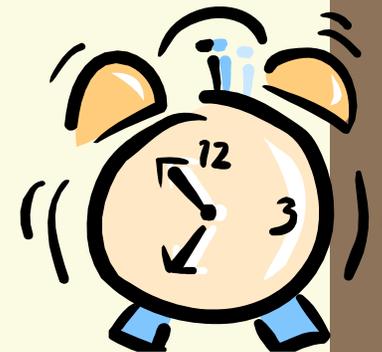
10

Working with Frames

Looking for a way to enhance your Web site layout? Frames can help you present multiple pages to your Web site visitors all on the one screen. This chapter shows you how to create framesets and add frames to your Web site.

Chapter 10 Topics: Working with Frames

- Understanding Frames
- Create Frames
- Customize Frame Borders
- Control Frame Margins
- Prevent Frame Resizing
- Target a Link



Understanding Frames

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- You can use frames to **divide** your Web pages into sections and allow users to access different pages in your Web site from one screen.
- Frames serves as valuable tool to help you create a **dynamic** structure for your Web site.



Understanding Frames

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The screenshot displays a Blackboard Academic Suite interface within a Microsoft Internet Explorer browser window. The browser's address bar shows the URL: http://online.losmedanos.edu/webapps/portal/frameset.jsp?tab_id=2_1&url=%2Fwebapps%2Fblackboard%2Fexecute%2Flauncher%3Ftype%3D%26id%3D_1505_1%26ur%3D. The page is divided into several frames:

- Menu:** A vertical sidebar on the left containing navigation links such as Announcements, Course Information, Staff Information, Course Documents, Assignments, Communication, Discussion Board, External Links, and Tools.
- Banner:** A red horizontal bar at the top of the page content area, featuring the Los Medanos College logo and navigation links for Home, Help, and Logout.
- Main:** The central content area displaying course documents for 'COMSC 30 - WEB SITE DEVELOPMENT - PART I (FA 10, #1411) (06/FAC/COMSC30-1411)'. It lists various documents including a Course Syllabus and nine chapters of lecture presentations, each with a PDF icon and a brief description.

Menu

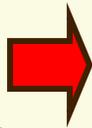
Banner

Main

Understanding Frames

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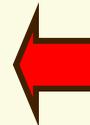
Menu



Banner



Main



Understanding Frames

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The screenshot shows a Microsoft Internet Explorer window titled "HTML Tutorial School - Microsoft Internet Explorer". The address bar shows "E:\COMSC-030\Project\Frameset.html". The page is titled "Simplified Creating Web Pages with HTML". It features a vertical menu on the left with links: Home, HTML Syntax, Basic Structure, Text, Images, Hyperlinks, Tables, Frames, Forms, Survey, and Contact. The main content area is titled "WELCOME" and contains an introduction to HTML, a section titled "What is a Web Site?", and another titled "What are the Parts of a Web Page?" with a numbered list: 1. Text, 2. Images, 3. Hyperlinks, 4. Tables, 5. Forms, 6. Frames.

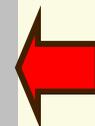
Banner



Menu



Main



Understanding Frames

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Frame Basics

- Browser windows typically hold a single frame to display an HTML document. If a page's content exceeds the size of the frame, **scroll bars** appear allowing the user to view different parts of the page.
- With **multiple frames**, the browser window displays several HTML documents at one time, each frame acting as a **separate screen**.
- Each frame can display its **own scroll bars** to allow users to view different portions of the Web page appearing within the frame.

Understanding Frames

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Ways to Use Frames

- You can find numerous uses for frames with a multi-page Web site.
- You can use frames to display a fixed page at the top of the screen and scrollable page in the remainder of the screen.
- For example, you might use a **navigation page** at the top with the links to pages on your site.
- When a user clicks a link in the top frame, the frame below displays the content. Or you might use **side-by-side** frames to display a picture in one frame and text in another.

Understanding Frames

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Frame Advantages

- When deciding whether to use frames in your Web site, take time to examine the pros and cons of frames.
- On the pro side, frames are really helpful with larger Web sites, especially when you want to keep certain information in view at all times.
- Frames offer a great way to display a **navigation bar** in one location without needing to include navigational links on every Web page in your site.
- Frames can make it easier for **users to navigate** a large Web site.

Understanding Frames

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Frame Disadvantages

- On the con site, users might not see your frame content as you envision; **monitor resolution** settings vary and what you think is perfect size for a frame may not be so on another user's screen.
- Depending on the Web page, not all page content looks good in smaller frames.
- Although new browsers support the user of frames, some older versions do not.
- You may need to design a non-frames version of your site to accommodate users without frame support.

Understanding Frames

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Framesets and Frames

- You use several documents to create frames for your Web site.
- The **frameset** document, which is part of HTML, defines the number and size of our frames.
- Within each **frame** you must target content, so you need separate HTML documents to appear within the frames.
- You can save the frameset document as a separate file and link other pages from your site to the frame structure.

Understanding Frames

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Nesting and Inline Frames

- If your Web site requires a more complex frame structure, you can **nest** a frameset within the original frameset.
- This gives you the flexibility of dividing a frame into more frames.
- You can also insert a single frame within any Web page on your site without needing to define a frameset document.

Create Frames

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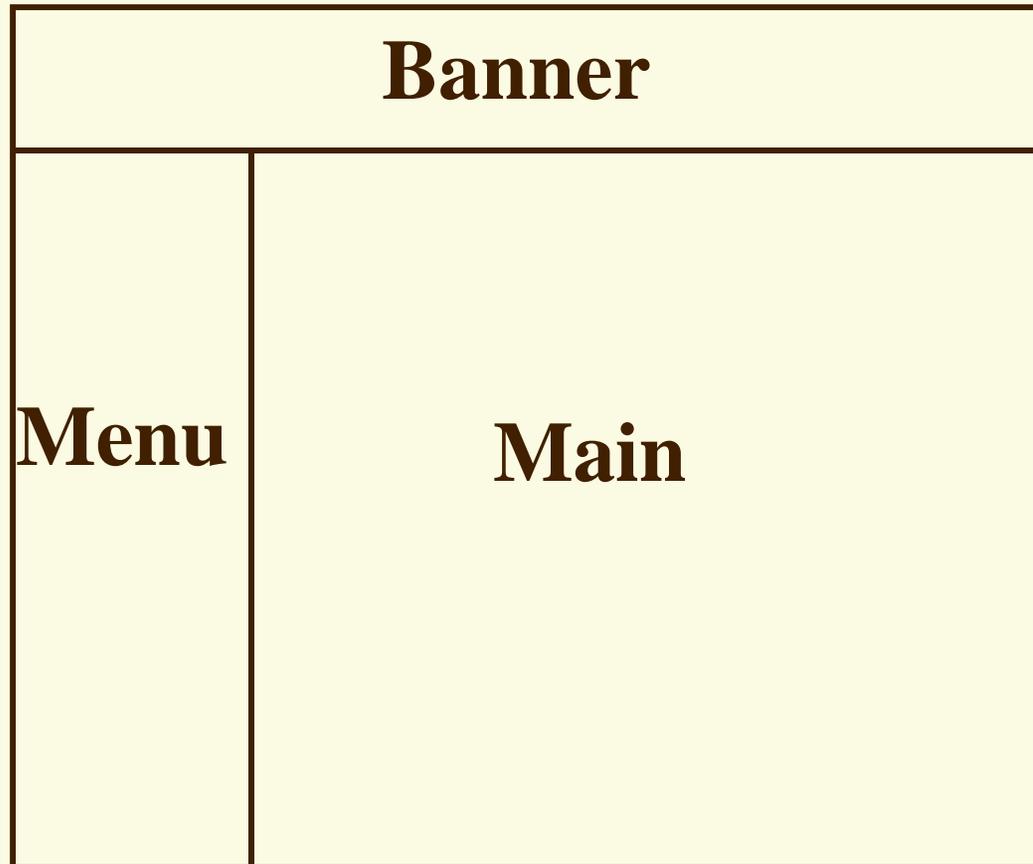
- You can use frames to divide the Web browser window into sections.
- This allows you to display different pages in your site on the screen at the same time.
- For example, you might use one frame to display a **navigational page** that helps viewers access other parts of your site, and then show the **content** of a page in another frame.

Create Frames

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Create Frames

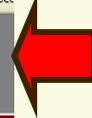


Create Frames

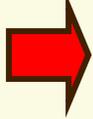
(pg 152)

The screenshot shows a Microsoft Internet Explorer window displaying a web page titled "Simplified Creating Web Pages with HTML". The page is structured using frames. On the left side, there is a vertical menu with the following items: Home, HTML Syntax, Basic Structure, Text, Images, Hyperlinks, Tables, Frames, Forms, Survey, and Contact. The main content area on the right features a "WELCOME" heading, a small image of a book cover, and introductory text about HTML. Below this, there are two sections: "What is a Web Site?" and "What are the Parts of a Web Page?". The "What are the Parts of a Web Page?" section includes a numbered list: 1. Text, 2. Images, 3. Hyperlinks, 4. Tables, 5. Forms, and 6. Frames.

Banner



Menu



Main



Create Frames

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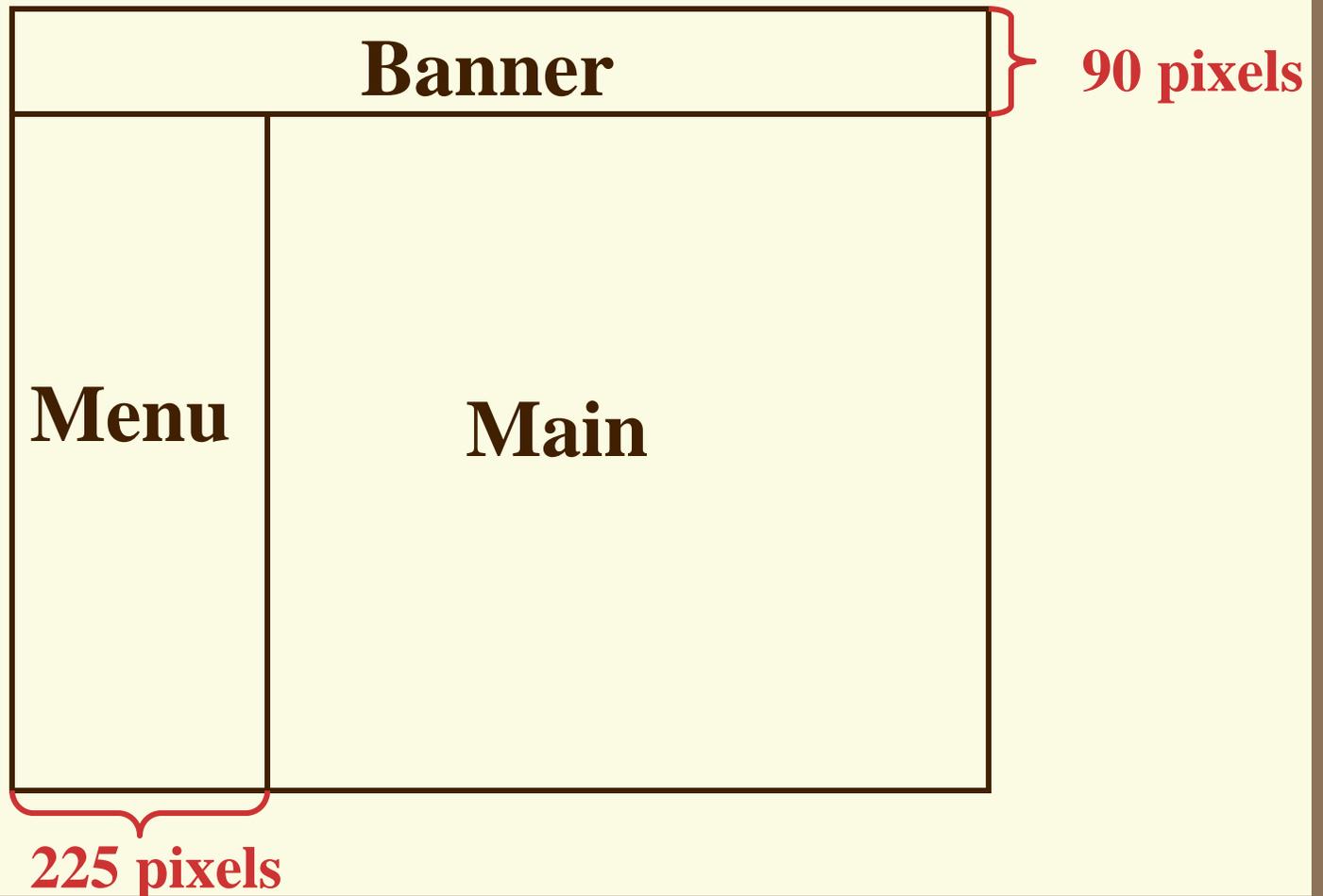
- You can use the **<FRAMESET>** and **<FRAME>** tags to define the frame structure.
- The **<FRAMESET>** tag creates a frameset, dividing the window into sections, while the **<FRAME>** tag specifies which page goes into which frame.
- You can define the size of each frame using an **absolute** value, measured in pixels or a **relative** value measured as percentage

Create Frames

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Create Frames



Create Frames

(pg 152)



Create Frames

1. Create and save a new HTML document, including only the basic `<HTML>` `<HEAD>` , and `<TITLE>` tags.
2. Below the `<HEAD>` tag, type `<FRAMESET>` and a blank space.

Create Frames

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Create Frames

3. Define the frameset to include two or more rows or columns and specify a size for the rows or columns.
 - To create frames in rows, type **ROWS="?,?">** replacing ? with the height of each row in your frameset.
 - To create frames in columns, type **COLS="?,?">** , replacing ? with the width of each column in your frameset.
 - You can also set a row or column size as a **percentage** by simply typing the value followed by a percentage sign, such as 30%

Create Frames

(pg 152)



Create Frames

```
Frameset_output.html - WordPad
File Edit View Insert Format Help
Courier New 10 Western B U
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN" "http://www.w3.org/TR/html4/frameset.dtd">
<HTML>
<HEAD>
<TITLE>Simplified Creating Web Pages with HTML</TITLE>
<META NAME="author" CONTENT="Joenil Mistal">
</HEAD>
<FRAMESET ROWS="90,*" FRAMESPACING="3" BORDER="5" BORDERCOLOR="maroon">
  <FRAME NAME="banner" SRC="Banner.html" SCROLLING="No" >
  <FRAMESET COLS="240,*" BORDER="5" BORDERCOLOR="maroon">
    <FRAME NAME="menu" SRC="Menu_Output.html" SCROLLING="yes" MARGINWIDTH="13" NORESIZE>
    <FRAME NAME="main" SRC="PartsWebPage.html">
  </FRAMESET>
</FRAMESET>
</HTML>
```

← 1

2 →

3 ↑

Create Frames

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Create Frames

4. Type **<FRAME NAME="?"** , replacing ? with a name for the frame.
5. Type a space and **SRC="?"** , replacing ? with the name and location of the Web page you want to appear in the frame.
6. Repeat steps 4 and 5 for each frame you specified in step 3.
7. Type **</FRAMESET>**.

The Web browser displays the frames.

Create Frames

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Create Frames

```
Frameset_output.html - WordPad
File Edit View Insert Format Help
[Icons] Courier New 10 Western B / U [Icons]
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN" "http://www.w3.org/TR/html4/frameset.dtd">
<HTML>
<HEAD>
<TITLE>Simplified Creating Web Pages with HTML</TITLE>
<META NAME="author" CONTENT="Joenil Mistal">
</HEAD>

<FRAMESET ROWS="90,*" FRAMESPACING="3" BORDER="5" BORDERCOLOR="maroon">
  <FRAME NAME="banner" SRC="Banner.html" SCROLLING="No" >

  <FRAMESET COLS="240,*" BORDER="5" BORDERCOLOR="maroon">
    <FRAME NAME="menu" SRC="Menu_Output.html" SCROLLING="yes" MARGINWIDTH="13" NORESIZE>
    <FRAME NAME="main" SRC="PartsWebPage.html">
  </FRAMESET>
</FRAMESET>
</HTML>
```

4



5



6



7



Create Frames

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Do I need to declare my frameset document somewhere on the Web page?

- It is a good practice to include a **DOCTYPE** declaration on your page.
- Frameset is a type of HTML document, and adding a statement specifying what version of HTML you are using can help identify the document type to others.
- Your DOCTYPE declaration might look like this

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML  
4.01 Frameset//EN"  
"http://www.w3.org/TR/html4/frameset.dtd">
```

Create Frames

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Do I need to specify a row height or column width for each frame?

- After you define the first frame size, you can use an asterisk (*) to assign the remaining window space to other frames.
- The asterisk specifies the size as a variable. For example:

```
<FRAMESET ROWS="65,*,60">
```
- In this frameset, the middle frame is sized to fit the remaining space left after the other two absolute frames.

Customized Frame Borders

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- You can change the thickness of your frame borders using the **BORDER** attribute.
- By default, Web browsers display the borders around your frames at a thickness of **6 pixels**. You can set your frame borders to another size as well as control the color of the borders.

Customized Frame Borders

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Change the Frame Borders

1. Within the **<FRAMESET>** tag, type **BORDER="?"**, replacing ? with a **thickness** value, measured in pixels

```
Frameset_output.html - WordPad
File Edit View Insert Format Help
Courier New 10 Western B U
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN" "http://www.w3.org/TR/html4/frameset.dtd">
<HTML>
<HEAD>
<TITLE>Simplified Creating Web Pages with HTML</TITLE>
<META NAME="author" CONTENT="Joenil Mistal">
</HEAD>
<FRAMESET ROWS="90,*" FRAMESPACING="3" BORDER="5" BORDERCOLOR="maroon">
  <FRAME NAME="banner" SRC="Banner.html" SCROLLING="No" >
  <FRAMESET COLS="240,*" BORDER="5" BORDERCOLOR="maroon">
    <FRAME NAME="menu" SRC="Menu_Output.html" SCROLLING="yes" MARGINWIDTH="13" NORESIZE>
    <FRAME NAME="main" SRC="PartsWebPage.html">
  </FRAMESET>
</FRAMESET>
</HTML>
```

Customized Frame Borders

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Change the Border Color

1. Within the **<FRAMESET>** tag, type **BORDERCOLOR="?"**, replacing ? with a color value.

```
Frameset_output.html - WordPad
File Edit View Insert Format Help
Courier New 10 Western B U
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN" "http://www.w3.org/TR/html4/frameset.dtd">
<HTML>
<HEAD>
<TITLE>Simplified Creating Web Pages with HTML</TITLE>
<META NAME="author" CONTENT="Joenil Mistal">
</HEAD>

<FRAMESET ROWS="90,*" FRAMESPACING="3" BORDER="5" BORDERCOLOR="maroon">
  <FRAME NAME="banner" SRC="Banner.html" SCROLLING="No" >

  <FRAMESET COLS="240,*" BORDER="5" BORDERCOLOR="maroon">
    <FRAME NAME="menu" SRC="Menu_Output.html" SCROLLING="yes" MARGINWIDTH="13" NORESIZE>
    <FRAME NAME="main" SRC="PartsWebPage.html">

  </FRAMESET>

</FRAMESET>

</HTML>
```

Customized Frame Borders

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Is there a way to hide my frame borders completely?

- Yes. To hide all the frame borders, type **FRAMEBORDER="0"**. In the **<FRAMESET>** tag.
- This coding makes the content of each separate frame blend together to seemingly make one large Web page.
- You may experience a small space between the pages. To rid the frame of this space, simply type **BORDER="0"** in the **<FRAMESET>** tag.

Customized Frame Borders

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Is there another way I can control frame border thickness?

- Yes. You can also use the **FRAMESPACING** attribute to control the thickness of frame borders.
- However, only Internet Explorer supports the **FRAMESPACING** attribute; the attribute is not part of the HTML standard.
- To set a border thickness, type **FRAMESPACE="?"** in the `<FRAMESET>` tag, replacing ? with the thickness value you want to set. Border thickness is measured in pixels.

Control Frame Margins

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- You can control the amount of space that appears between a frame border and the contents of the frame.
- Using the **MARGINWIDTH** and **MARGINHEIGHT** attributes, you can set margins for the top, bottom, left, and right side of your frames.
- Margin space is measured in pixels.

Control Frame Margins

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Control Frame Margins

1. Within the **<FRAME>** tag, type **MARGINWIDTH="?"**, replacing ? with the amount of space you want to set for the left and right margin.
2. Type a space and **MARGINHEIGHT="?"**, replacing ? with the amount of space you want to set for the top and bottom margins.

Control Frame Margins

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Control Frame Margins

```
Frameset_output.html - WordPad
File Edit View Insert Format Help
Courier New 10 Western B U
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN" "http://www.w3.org/TR/html4/frameset.dtd">
<HTML>
<HEAD>
<TITLE>Simplified Creating Web Pages with HTML</TITLE>
<META NAME="author" CONTENT="Joenil Mistal">
</HEAD>
<FRAMESET ROWS="90,*" FRAMESPACING="3" BORDER="5" BORDERCOLOR="maroon">
  <FRAME NAME="banner" SRC="Banner.html" SCROLLING="No" >
</FRAMESET>
<FRAMESET COLS="240,*" BORDER="5" BORDERCOLOR="maroon">
  <FRAME NAME="menu" SRC="Menu_Output.html" SCROLLING="yes" MARGINWIDTH="13" NORESIZE>
  <FRAME NAME="main" SRC="PartsWebPage.html">
</FRAMESET>
</HTML>
```

Prevent Frame Resizing

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- By default, users can resize the frames in your Web page, allowing them to view more information in a frame.
- You can control your page layout by restricting frame resizing.

Prevent Frame Resizing

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Prevent Frame Resizing

1. To **NORESIZE** inside the **<FRAME>** tag of the frame you want to control.
2. Repeat step 1 for any other frames for which you want to prevent resizing.

Prevent Frame Resizing

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Prevent Frame Resizing

```
Frameset_output.html - WordPad
File Edit View Insert Format Help
Courier New 10 Western B / U
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN" "http://www.w3.org/TR/html4/frameset.dtd">
<HTML>
<HEAD>
<TITLE>Simplified Creating Web Pages with HTML</TITLE>
<META NAME="author" CONTENT="Joenil Mistal">
</HEAD>

<FRAMESET ROWS="90,*" FRAMESPACING="3" BORDER="5" BORDERCOLOR="maroon">
  <FRAME NAME="banner" SRC="Banner.html" SCROLLING="No" >

<FRAMESET COLS="240,*" BORDER="5" BORDERCOLOR="maroon">
  <FRAME NAME="menu" SRC="Menu_Output.html" SCROLLING="yes" MARGINWIDTH="13" NORESIZE>
  <FRAME NAME="main" SRC="PartsWebPage.html">

</FRAMESET>

</HTML>
```

Target a Link

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- You can make other pages from your Web site appear in a frame in addition to the initial frameset content.
- To target links to a particular frames, you must identify each frame with a unique name.

Target a Link

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Target a Link

1. Open the Web page where the link should appear.
2. Click where you want to insert the link and type **<A HREF="?"** , replacing ? with the target page.

Note: Be sure to name the frame before targeting a link. See the section "Create Frames" to learn how to name frames in the frameset document.

3. Type a space and **TARGET="?">** , replacing ? with the frame you assigned in step 1.

Target a Link

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Target a Link

4. Type the link text.
5. Type ``.

You can repeat steps 1 to 5 to target more links..

Target a Link

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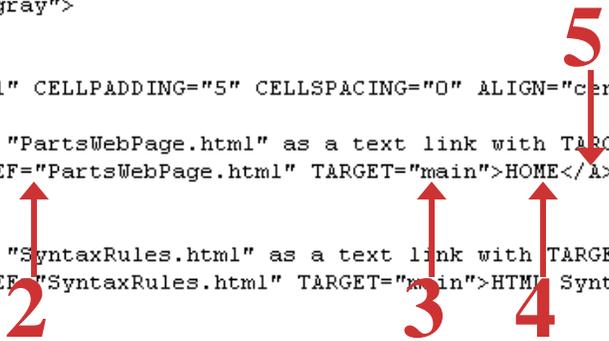
Target a Link

```
Menu_Output.html - WordPad
File Edit View Insert Format Help
[Icons] Courier New 10 Western B I U
<HTML>
<HEAD>
<Title>Simplified Creating Web Pages with HTML</TITLE>

<STYLE>
/* internal style rule for the navigation menu table */
TABLE {font-family: arial, verdana; font-size: 18pt; font-weight: bold; color: white}
</STYLE>
</HEAD>

<BODY BGCOLOR="gray">
<BR>

<TABLE BORDER="1" CELLPADDING="5" CELLSPACING="0" ALIGN="center">
<TR>
<!-- Add "PartsWebPage.html" as a text link with TARGET to the main window -->
<TD><A HREF="PartsWebPage.html" TARGET="main">HOME</A></TD>
</TR>
<TR>
<!-- Add "SyntaxRules.html" as a text link with TARGET to the main window -->
<TD><A HREF="SyntaxRules.html" TARGET="main">HTML Syntax</A></TD>
</TR>
<TR>
<!-- Add "BasicStructure.html" as a text link with TARGET to the main window -->
<TD><A HREF="BasicStructure.html" TARGET="main">Basic Structure</A></TD>
</TR>
<TR>
<TD>Text</TD>
</TR>
</TABLE>
```



Target a Link

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Can I make all the links open in the same frame?

- Yes, To make all the Web page links open in the same frame, you can add the target frame to the **<HEAD>** and **</HEAD>** tags.
- Simply click within the **<HEAD>** tags and type **<BASE TARGET="?">** , replacing ? with the name of the target frame
- You must name the target frame in the frameset document in order to reference the name in the **<BASE TARGET>** tag.

Target a Link

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Can I make the target link open a new window?

- Yes. You can use the TARGET attribute to instruct the browser to open the target link in a new window.
- To open the linked page in a new unnamed window, use the `_blank` value.
- To open the linked page in the current window, use the `_top` value. For example:

```
<A HREF="mypage.html" TARGET="_blank"> Click here to  
view the page </A>
```

In this code, when the user clicks the link, the document `mypage.html` opens in a new browser window.