



*NextGen*



*Web*



Session: 8

*Creating Navigational Aids  
and Division-Based Layout*



# Objectives

- Explain HTML5 semantic tags
- Explain HTML5 semantic tag layouts
- Explain the usage of navigation bar
- Describe a text-based and graphic navigation bar
- Explain image mapping
- Explain divisions in HTML5



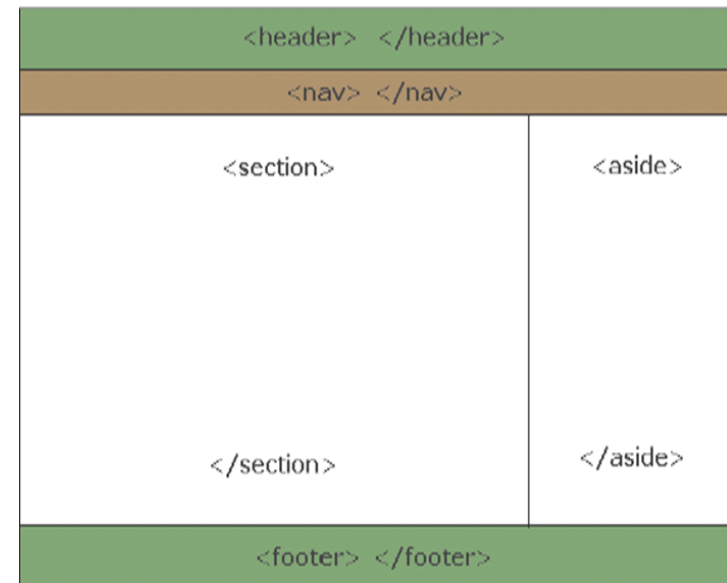
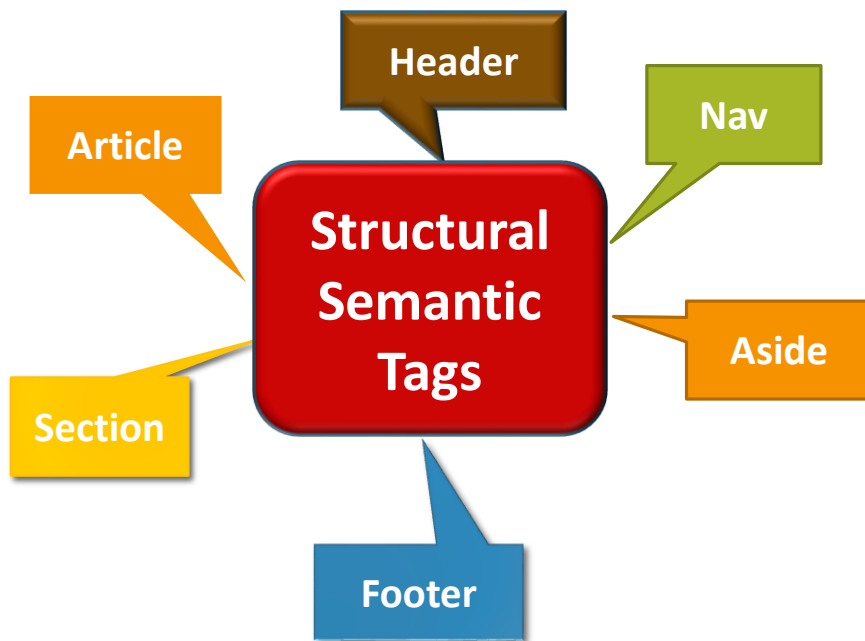
# HTML5 Semantic Tags

- HTML5 has evolved by introducing new elements that brought semantics to higher level.
- Earlier version of HTML had the universal tag `<div>` which was used to accomplish various tasks in the HTML structure.
- Constraint with `<div>` tag is that, it confused the user when multiple `<div>` tag was used in large coding.
- HTML5 has introduced two types of semantic tags namely, text-level and structural.



# Structural Semantic Tags

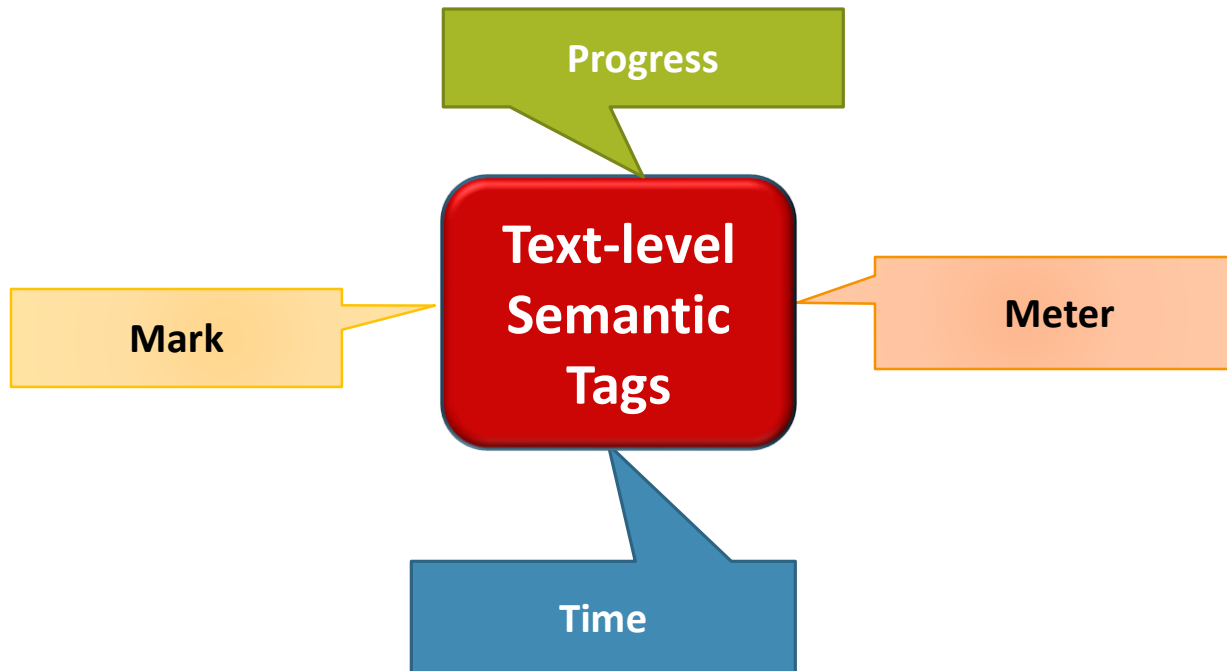
- Are block level elements and are used to structure pages.
- New structural semantic elements are as follows:





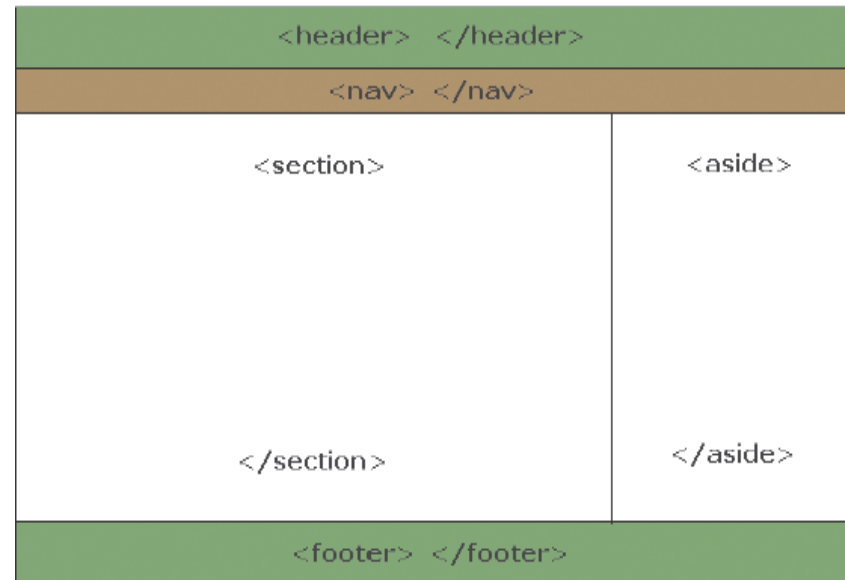
# Text-level Semantic Tags

- Are currently inline elements.
- New text-level semantic elements are as follows:

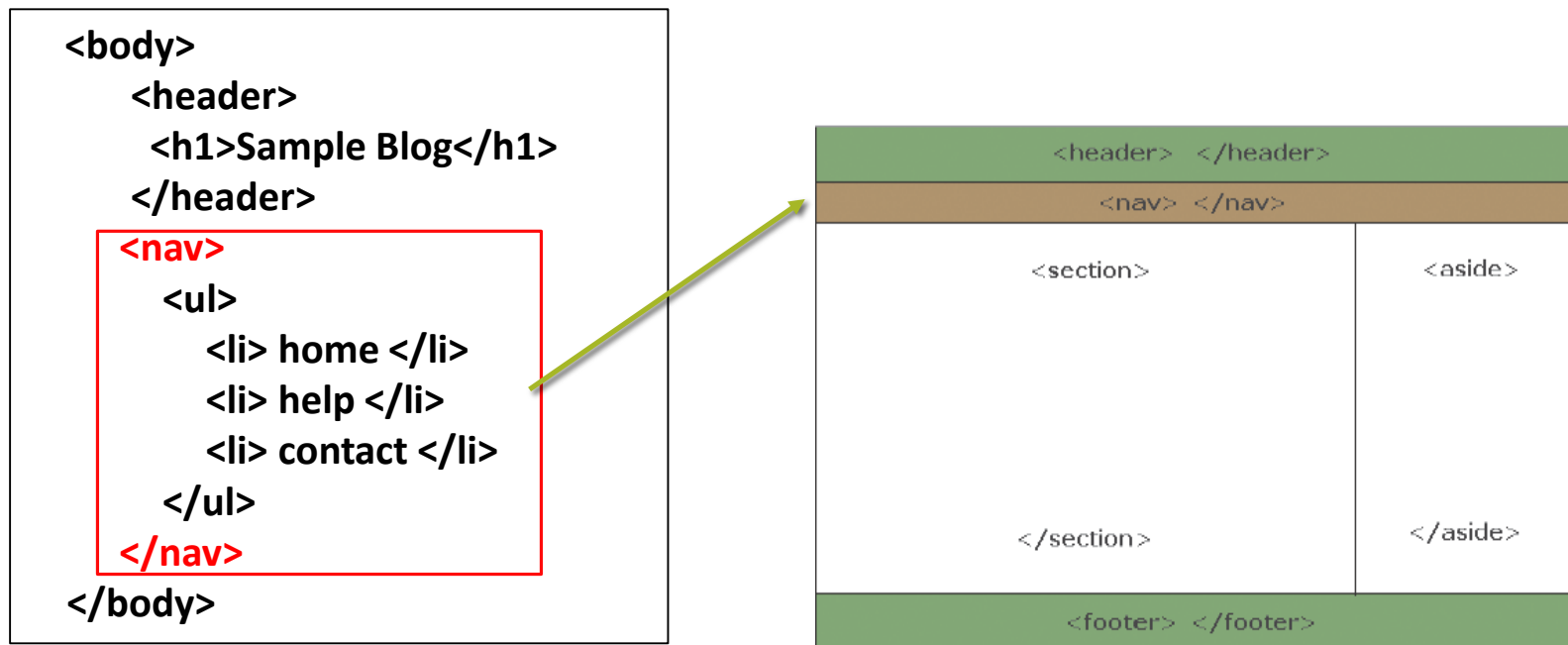


- **<header>** element provides introductory information.
- **<head>** tag provides information about the entire document.
- **<header>** tag is used only for the body of the Web page or for the sections inside the body.

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title>My First Page</title>
  </head>
  <body>
    <header>
      <h1>Sample Blog </h1>
    </header>
  </body>
</html>
```



- **<nav>** element is a section which contains the navigation link to other pages or links to different sections within the page.
- Navigational elements are helpful in identifying large blocks of navigational data.





- **<section>** is the main information bar that contains the most important information of the document.
- It can be created in different formats. For example, it can be divided into several blocks or columns.

```
<body>
  <header>
    <h1>Sample Blog </h1>
  </header>
  <nav>
    <ul>
      <li> home </li>
      <li> help </li>
      <li> contact </li>
    </ul>
  </nav>
```

```
<section>
  <h1>Links</h1>
  <ul>
    <li><a href="#">Link 1</a></li>
    <li><a href="#">Link 2</a></li>
    <li><a href="#">Link 3</a></li>
  </ul>
</section>
</body>
```





- **<aside>** element is a column or a section that generally contains data linked to the main information.
- This element is used for typographical effects, such as for sidebars, for groups of nav elements, for advertising purposes, and so on.

```
<!DOCTYPE html>
<html lang="en">
<body>
  <header>
    <h1>Sample Blog </h1>
  </header>
  <nav>
    <ul>
      <li> home </li>
      <li> help </li>
      <li> contact </li>
    </ul>
  </nav>
  <section>
    <h1>Links</h1>
    <ul>
      <li><a href="#">Link 1</a></li>
      <li><a href="#">Link 2</a></li>
      <li><a href="#">Link 3</a></li>
    </ul>
  </section>
  <aside>
    <blockquote>Archive Number One</blockquote>
    <br>
    <blockquote>Archive Number Two</blockquote>
  </aside>
</body>
</html>
```



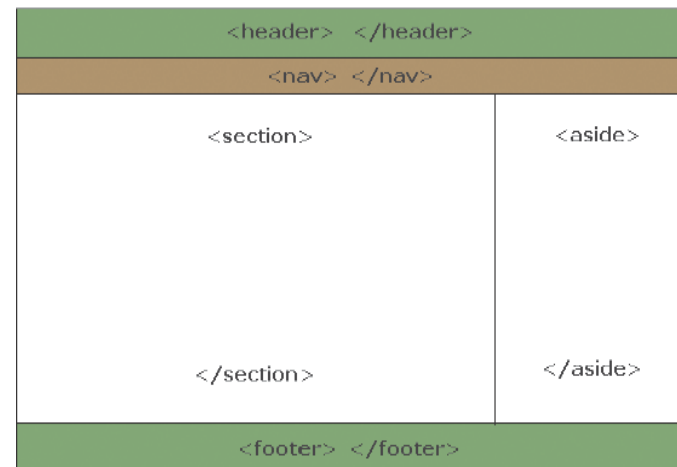
# HTML5 Semantic Layout

5-6

- The Code Snippet demonstrates the use of `<footer>` tag.

```
<body>
<header>
  <h1>Sample Blog</h1>
</header>
<nav>
  <ul>
    <li> home </li>
    <li> help </li>
    <li> contact </li>
  </ul>
</nav>
<section>
  <h1>Links</h1>
  <ul>
    <li><a href="#">Link 1</a></li>
    <li><a href="#">Link 2</a></li>
    <li><a href="#">Link 3</a></li>
  </ul>
</section>
```

```
<aside>
  <blockquote>Archive Number One</blockquote>
  <br>
  <blockquote>Archive Number Two</blockquote>
</aside>
<footer>
  Copyright &copy; 2012-2013
</footer>
</body>
</html>
```





# HTML5 Semantic Layout

6-6

- **<article>** element helps to insert a self-contained composition in an application, page, document, or site.

```
<body>
<header>
  <h1>Sample Blog</h1>
</header>
<nav>
  <ul>
    <li> home </li>
    <li> help </li>
    <li> contact </li>
  </ul>
</nav>
<section>
  <article> First Blog entry </article>
  <article> Second Blog entry </article>
</section>
<aside>
  <blockquote>Archive Number 1</blockquote>
  <br>
  <blockquote>Archive Number 2</blockquote>
</aside>
<footer>
  Copyright &copy; 2012-2013
</footer>
</body>
</html>
```



# Navigation Bar

- Is one of the most important elements in Web design.
- Web-layouts do not have any specific physical representation except for a consistent navigation menu.
- In Web designing, navigation menu are always on navigation bars, which can be horizontal or vertical.
- Navigation bar is a section of a Website or online page intended to support visitors in browsing through the online document.
- Web pages will have a primary and a secondary navigation bar on all pages which will include links to the most important sections of the site.
- Advantage of using a text-based navigation bar is that it reduces the loading time of a page.



# Text-based Navigation Bar

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
</head>
```

```
<body>
```

```
<nav>
```

```
<a href="/home/"> <font size="6"> Home </font> </a> |
```

```
<a href="/news/"> <font size="6"> News </font> </a> |
```

```
<a href="/contact/"> <font size="6"> Contact </font> </a> |
```

```
<a href="/about/"> <font size="6"> About </font> </a>
```

```
</nav>
```

```
<h1>This is a Text-based Navigation Bar</h1>
```

```
</body>
```

```
</html>
```

[Home](#) | [News](#) | [Contact](#) | [About](#)

**This is a Text-based Navigation Bar**



# Graphical Navigation Bar with Rollover Effects

- Similar to the graphical navigation bar except for additional feature.
- Moving the mouse over the linked image leads to a change in the state of image.
- State change of image leads to an image swapping process.
- When the mouse is moved off the image, the image swaps back to the previous view.
- This rollover effect creates an interactive activity between the Web site and the visitor.
- Rollover effect has two different activities that include the image in the original view and the changed image after mouse rollover.

# HTML Image Map

- Are images with clickable areas linked to another page
- Be Defined by using the **<map>** tag
- **<map>** element contains a number of **<area>** elements for defining the clickable areas in the image map.
- The **id** attribute of the **<map>** tag when specified, must have the same value as the **name** attribute.

```

```

```
<map name="cakemap">  
  <area shape="circle"  
    coords="0,0,200,600"  
    href="4.html" alt="cake" />  
</map>
```





# Divisions

- **<div>** tag defines a division in an HTML Web page.
- Is used to group block-elements and format them with CSS.
- New structural semantic tags reasonably reduce a lot of <div> tag's usage.
- can be used when there is no other semantically appropriate element left that suits the purpose in a Web page development.
- It can be commonly used for stylistic purposes such as wrapping some semantically marked-up content in a CSS-styled container.

- <div> tag is a block-level element
- <div> tag can contain any other tag
- <div> tag can be found inside any element that can contain flow elements, such as other <div>, <address>, <section>, and <table>

```
<body>
  <div id="wrapper">
    <header>
      <h1>Hello</h1>
      <nav>
        <!-- ... -->
      </nav>
    </header>
  </div>
</body>
```



# Division Positioning and Formatting

- Elements can be positioned using the **top**, **bottom**, **left**, and **right** properties.
- These properties will not work unless the **position** of the property is set.
- There are five position properties in DIV elements namely, static, relative, absolute, fixed, and inherit.
- Only three properties are used namely, absolute, relative, and fixed.
- Positioning can be applied to any block element.
- Default position for a block element (DIV) is static.



# Summary

- HTML 5 has introduced two types of semantic tags. They are namely, text-level and structural.
  - Structural semantic tags : Section, Header , Footer , Aside, Nav, Article
  - Text level semantic tags : Mark, Time, Meter, Progress
- Navigation is the most significant element in Web design. Since Web-layouts does not have any physical representation, a user can depend on consistent navigation menu.
- Text-based navigation bars are created as stand-alone navigation bars that are not associated with icons. Text-based navigation bar is easy to create and can be displayed in any Web browsers.
- Graphical navigation bar is better than text-based navigation as it gives a visual appeal to the visiting users.
- The new structural semantic tags reasonably capture a lot of <div>'s territory, but <div> tag still has a place in the HTML5 world. Div can be used when there is no other semantically appropriate element left that suits the purpose in a Web page development.