

## Objectives

- Define a project plan
- Create wireframes and a storyboard
- Create an HTML document
- Set up the document head and body
- Add text to a web page

## Objectives (continued)

- Add a comment to a web document
- Preview your web page on a desktop computer
- Configure web server software
- Preview your web page on mobile devices

# Define a Project Plan

- **Project plan:** document that identifies aspects of the project
  - Also known as a design document
- Ask questions to find out customer's expectations and goals, including
  - Goals and objectives of the website
  - Target audience
  - Type of website
  - Budget for website
  - Timeline for website

## Unit A

# Goals and Objectives



- Mission
- Why do you want a website?
- Short term goals
- What do you hope to gain having a website?
- Who are your audiences?

## Unit A

# Target Audience



Purpose:

- To create layout and design
- Know who are being targeted – genders, organizations, etc.
- Technologies – PC, MAC, Mobile

## Unit A

# Type of website



- Website the owner wants to focus the scope of the project.
- Purpose: provides web presence that serves as an online Information – special interest groups, sales, etc.

## Unit A

# Type of Budget



- Give customers timeline – date of the delivery
- Budget includes project plan as part of the contract
- How much do you charge?

# Unit A

## Define a Project Plan Template

### Sample project plan (Signature Assignment)

#### Project plan for Lakeland Reeds Bed and Breakfast

##### Objectives:

- Make general info about the facility and contact info available online
- Enable prospective guests to view the accommodations and grounds
- Allow prospective guests to book a stay online

##### Target audience:

- 35+
- Live in southern Canada and the upper Midwest U.S.
- Want to "get away from it all"
- Not sure about technical details of users, but it's assumed most will have some web experience

##### Site type:

- Bill board (while the client wants some e-commerce functionality, they will accomplish this by linking to another site that takes reservations; thus, no advanced functionality is required for this site)

##### Budget:

- Hien is preparing a few detailed options for the client; this section will be updated when the budget is finalized and the contract is signed

##### Timeline:

Milestone	Date	Who's responsible
Design mockup submitted for approval	April 1, 2018	Project manager
Draft site published to testing server	April 15, 2018	Project manager
Feedback received from client	April 22, 2018	Phillip Blaine
Client feedback incorporated	May 1, 2018	Project manager
Final feedback from client	May 8, 2018	Phillip Blaine
Final feedback incorporated	May 22, 2018	Project manager
Final signoff from client	June 5, 2018	Phillip Blaine
Site goes live	June 5, 2018	Project manager

##### Client contact info:

Phillip Blaine  
Lakeland Reeds Bed and Breakfast  
45 Marsh Grass Ln.  
Marble, MN 55764  
(218) 555-5253



# Unit A

## Why do we need project plan?

1. Scope creep
2. Clues to give you how much you charge.
3. What else?
4. ...
5. ...
6. ...

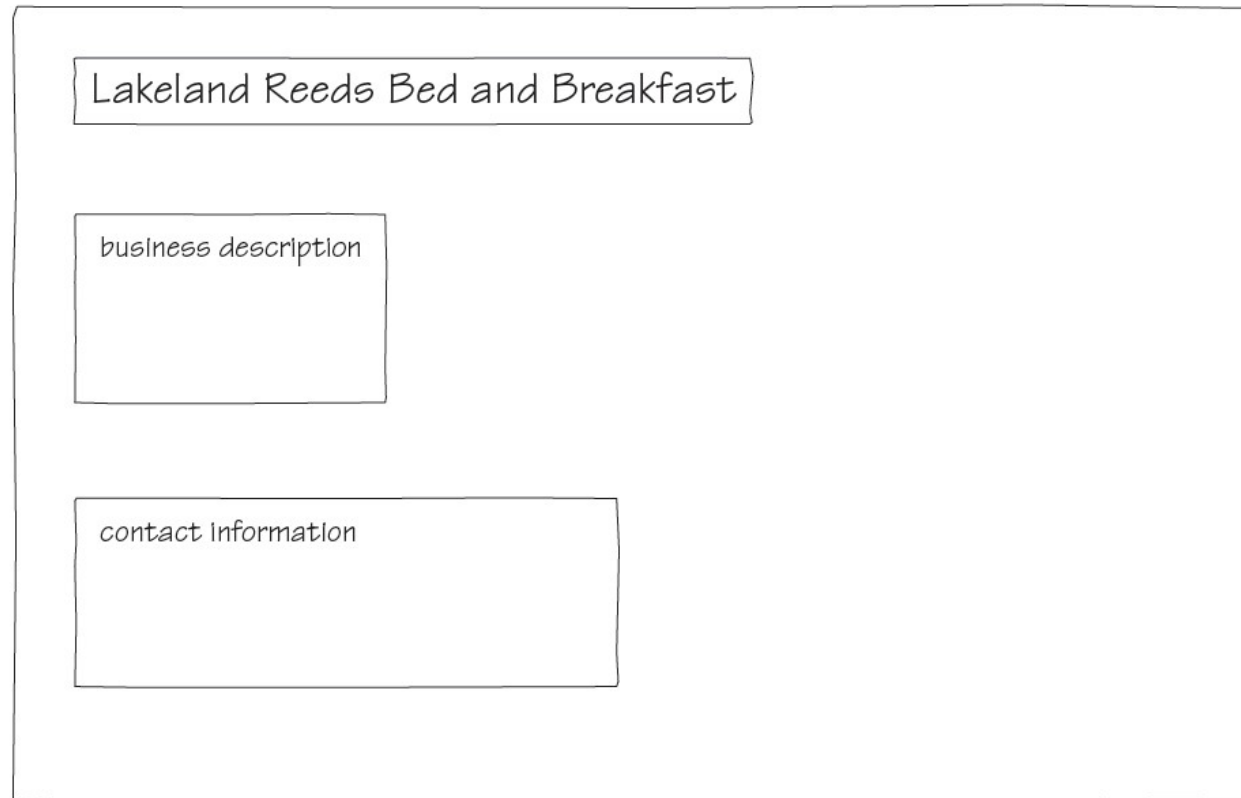
# Create Wireframes and a Storyboard

- Wireframe: sketch that outlines web page components and their place in the layout
- Storyboard: shows links between web pages
- To create a wireframe and storyboard
  - Identify components (use project plan)
  - Sketch possible layouts
  - Map relationships among pages

## Unit A

# Create Wireframes and a Storyboard (continued)

- Sketch for a main web page



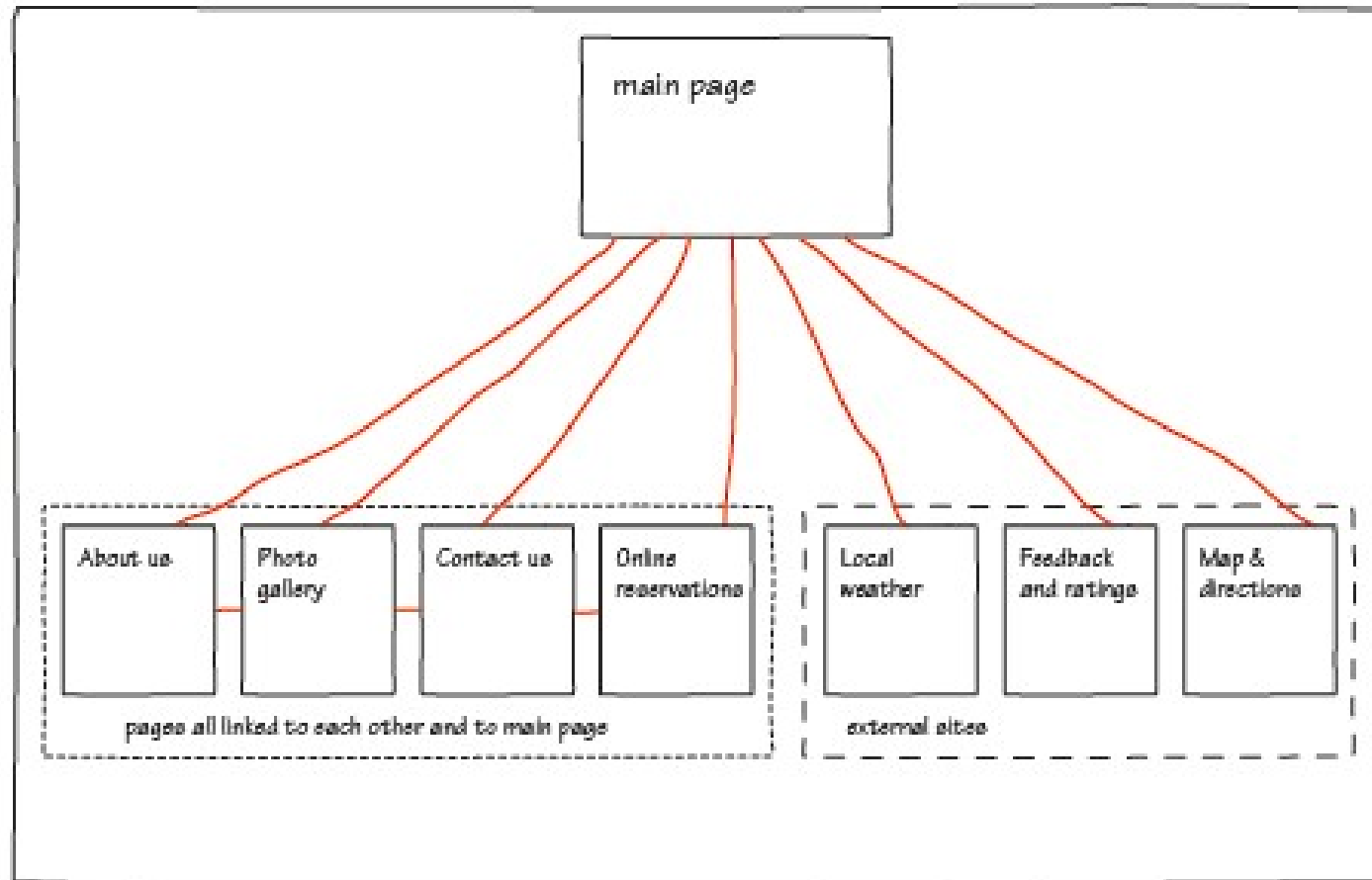
Layout – positioning

Components – logo, color scheme, images, videos

## Unit A

# Create Wireframes and a Storyboard (continued)

- Storyboard showing links for website





## Unit A

# Create Wireframes and a Storyboard (Quick Quiz)

- a. T/F -> A wireframe and a storyboard are the same thing and serve the same purpose.
- b. T/F -> A website storyboard includes only information that is included in the project plan.
- c. T/F -> All pages in a website must have the same layout.
- d. T/F It is often necessary for different pages within a website to have different layouts that best serve the requirements of the pages.

## Unit A

# Create an HTML Document

- HTML (Hypertext Markup Language): standardized format for web pages
- HTML document consists of text
  - Text to be displayed on the web page
  - Tags specifying how the browser should render each item
- Most tags occur in pairs, but one-sided tags are used by themselves

## Unit A

# Create an HTML Document (continued)

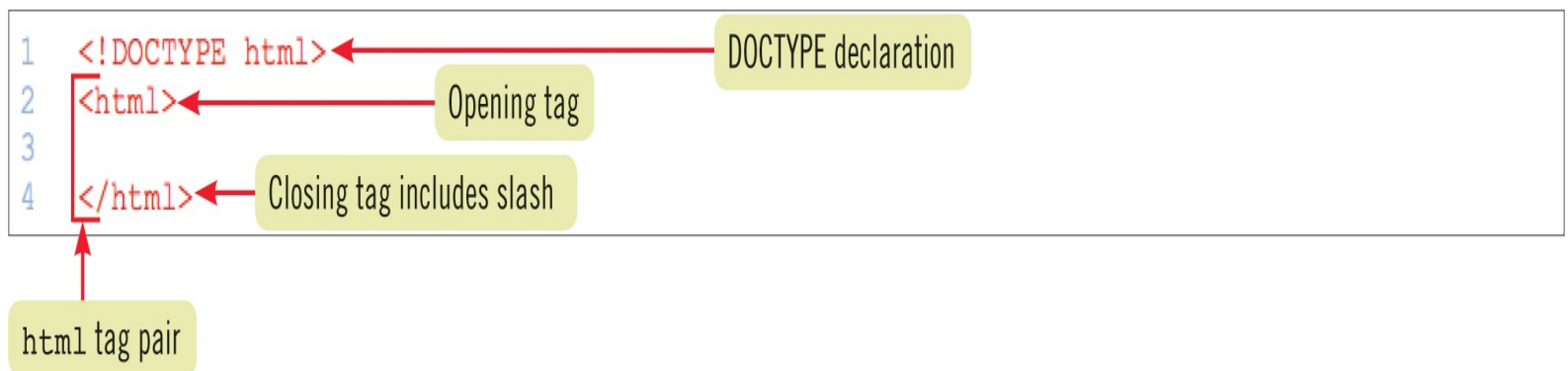
Start document with `<!DOCTYPE`  
`html>` declaration

## HTML5

`<!DOCTYPE html>`

## HTML (4.01)

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



## Unit A

# Create an HTML Document (continued)

- Add `<html>` and `</html>` tags to define beginning and end of web page
- Create document by hand-coding in a text editor or by using suitable program

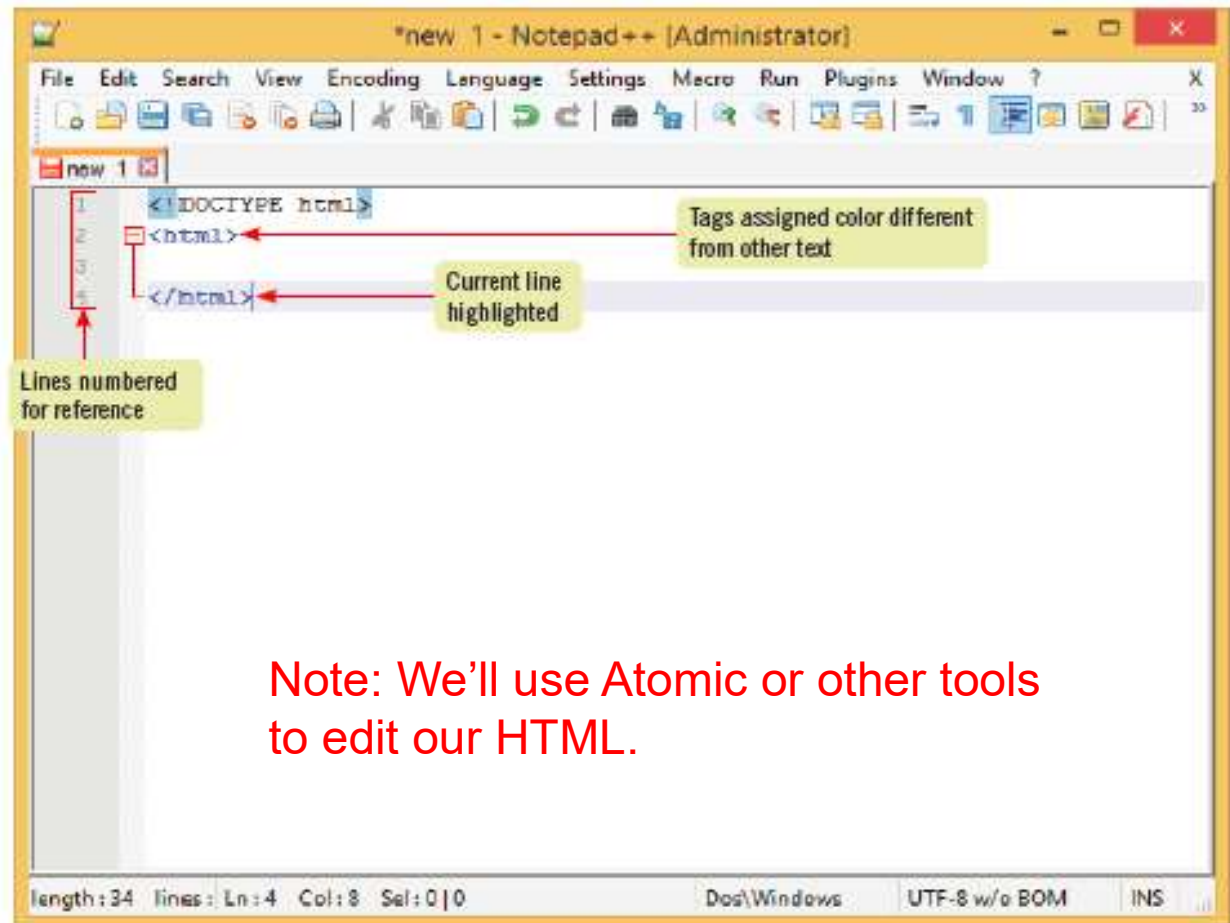
Note: HTML tags always start with an opening angle bracket (`<`) and end with a closing angle bracket (`>`).



## Unit A

# Create an HTML Document (continued)

- Basic structure of a web page in a text editor



The screenshot shows a Notepad++ window titled "new 1 - Notepad++ [Administrator]". The menu bar includes File, Edit, Search, View, Encoding, Language, Settings, Macro, Run, Plugins, Window, and ?. The toolbar contains various icons for file operations and editing. The text area shows the following HTML structure:

```
1 <!DOCTYPE html>
2 <html>
3
4 </html>
```

Annotations with arrows pointing to the code:

- "Lines numbered for reference" points to the line numbers 1, 2, 3, and 4 in the left margin.
- "Tags assigned color different from other text" points to the opening <html> tag, which is highlighted in blue.
- "Current line highlighted" points to the closing </html> tag, which is highlighted in light blue.

The status bar at the bottom shows: length: 34 lines: Ln: 4 Col: 8 Sel: 0 | 0. The encoding is set to UTF-8 w/o BOM and the input mode is INS.

Note: We'll use Atomic or other tools to edit our HTML.

To save your work without using the menus, you can press [Ctrl]+[S] (Windows) or [command]+[S] (Mac).

## Unit A

# Create an HTML Document (continued)

Download the any code editor and Apache you like right now. These are the recommended ones.

1. <https://atom.io/>
2. Aptana Studio:  
<https://www.aptana.com/>
3. Notepad++
3. Apache Server (Web Server)

Tools to use: Notepad++, Atom.io, or any other code editors

## Unit A

# Classroom Activities

What would happen if someone wrote a web page including an opening `<html>` tag, but forgot to add the corresponding closing tag. How would a user agent treat the student's web page?

## Unit A

# Set Up the Document Head and Body

- HTML document divided into head and body sections

1. Head section: contains elements that are not part of the main web page (display on top of the browser), for example, meta

➤ element:

```
<head>
<title>Not a Meta Tag, but required anyway </title>
<meta name="description" content="Awesome Description Here">
<meta http-equiv="content-type" content="text/html; charset=UTF-8">
</head>
```

Note: Some elements in an HTML page are included within other elements

## Unit A

# Another example of element page within other elements.

```
index.html x
1  <!DOCTYPE html>
2  <head>
3    <title>Lakeland Reeds Bed and Breakfast - title section</title>
4  </head>
5  <body>
6    <h1>Lakeland Reeds Bed and Breakfast (in body section)</h1>
7    <p> A country perfect for fishing, boating, biking, or just watching
8      day go by.
9    </p>
10 </body>
11 </html>
12 |
```

### NESTING ELEMENT Example:

<title> is within <head> tag.

<p> and <h1> are within <body> tag.

Etc.

# Unit A

## Set Up the Document Head and Body cont.

2. **Body section:** contains elements that are visible in the main window of a web browser
- Head and body tags are nested within `html` tags

Not supported in HTML5

### Attributes

Attribute	Value
<u>alink</u>	<i>color</i>
<u>background</u>	<i>URL</i>
<u>bgcolor</u>	<i>color</i>
<u>link</u>	<i>color</i>
<u>text</u>	<i>color</i>
<u>vlink</u>	<i>color</i>

## Unit A

# Set Up the Document Head and Body (continued)

- For clarity of structure, nested elements are
  - On new lines
  - Indented by two spaces relative to parent element

```
1  <!DOCTYPE html>
2  <html>
3    <head>
4      <title>Comparing HTML and XHTML</title>
5    </head>
6    <body>
7      <p>HTML vs. XHTML</p>
8      <table>
9        <tr>
10         <th>Aspect</th>
11         <th>HTML</th>
12         <th>XHTML</th>
13       </tr>
14       <tr>
15         <td>Tag nesting</td>
16         <td>Tags may be closed out of order</td>
17         <td>Tags must be closed in the order opened</td>
18       </tr>
19       <tr>
20         <td>Tag case</td>
21         <td>Tags may be written in upper or lower case</td>
22         <td>Tags must be written in lower case</td>
23       </tr>
24     </table>
25   </body>
26 </html>
```

Indentations indicate sections of code visually



# Unit A

## Set Up the Document Head and Body (continued)

- Describing nesting relationships

```
1  <!DOCTYPE html>
2  <html>
3    <head>
4      <title>Comparing HTML and XHTML</title>
5    </head>
6    <body>
7      <p>HTML vs. XHTML</p>
8      <table>
9        <tr>
10         <th>Aspect</th>
11         <th>HTML</th>
12         <th>XHTML</th>
13       </tr>
14       <tr>
15         <td>Tag nesting</td>
16         <td>Tags may be closed out of order</td>
17         <td>Tags must be closed in the order opened</td>
18       </tr>
19       <tr>
20         <td>Tag case</td>
21         <td>Tags may be written in upper or lower case</td>
22         <td>Tags must be written in lower case</td>
23       </tr>
24     </table>
25   </body>
26 </html>
```

Indentations indicate sections of code visually

Identify the relationships :

Child:  
Parent:  
Grandparent  
Grandchild:  
Siblings:



## Unit A

# Set Up the Document Head and Body (continued)

- To add head section
  - Add `<head>` and `</head>` tags in new lines within the `html` tags
    - Container of all head elements – title, documents, styles, meta information, and more.

```
<!DOCTYPE html>
<html>
<head>
<title>CSC 525 Signature Assignment</title>
</head>

<body>
  This assignment is the design, layout, and implementation of my SA.
</body>

</html>
```

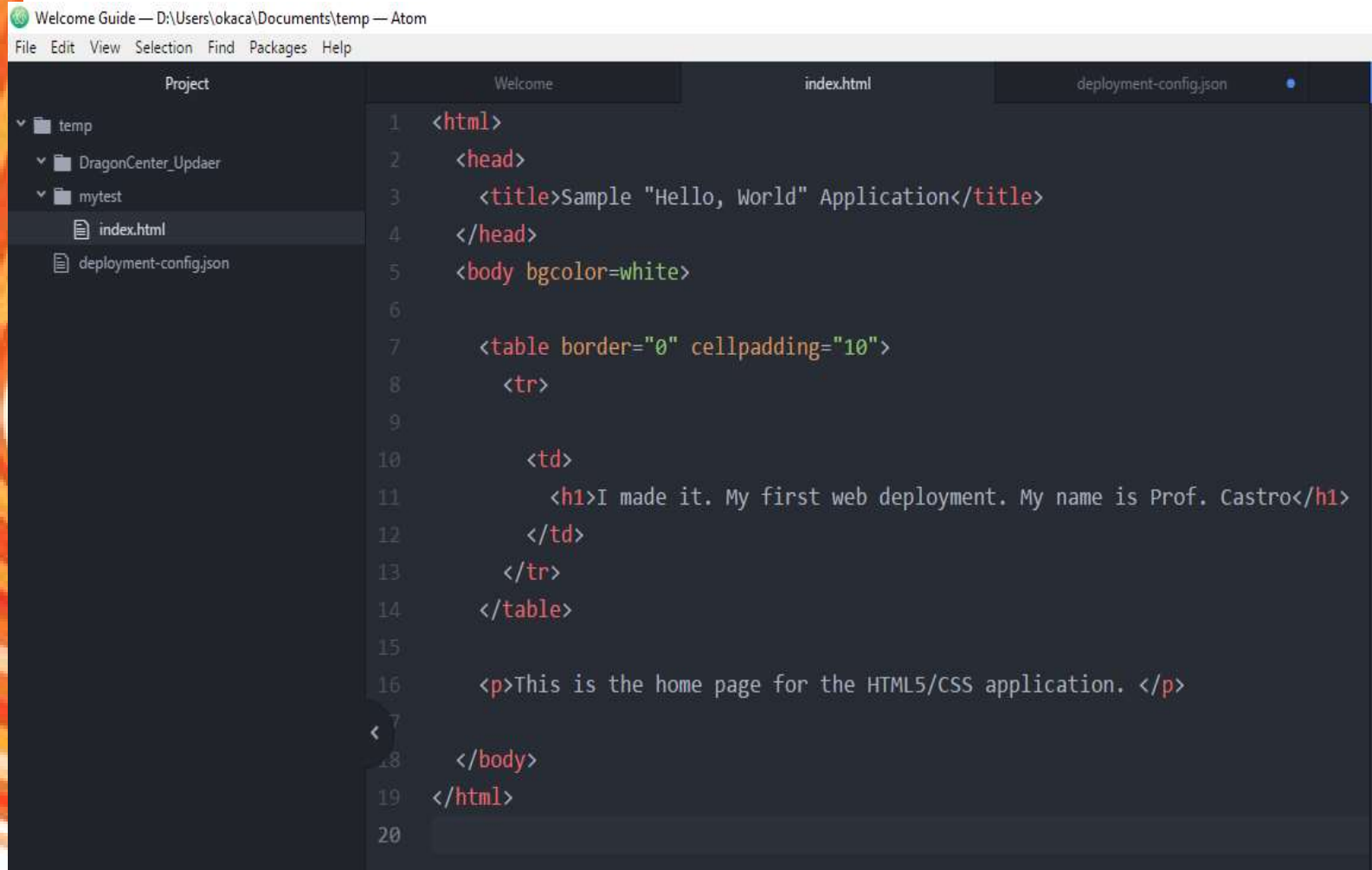
## Set Up the Document Head and Body (continued)

- To add body portion, add `<body>` and `</body>` tags in new lines within the `html` tags
- Completed web page structure

```
1  <!DOCTYPE html>
2  <html>
3      <head>
4  <-- Head section
5      </head>
6      <body>
7  <-- Body section
8      </body>
9  </html>
```

# Unit A

## Set Up the Document Head and Body Sample Using Atom code editor



The screenshot shows the Atom code editor interface. The title bar indicates the file path: "Welcome Guide — D:\Users\okaca\Documents\temp — Atom". The menu bar includes "File", "Edit", "View", "Selection", "Find", "Packages", and "Help". The left sidebar displays the "Project" view with a tree structure: "temp" (expanded) containing "DragonCenter\_Updaer", "mytest", "index.html", and "deployment-config.json". The main editor area shows the "index.html" file with the following HTML code:

```
1 <html>
2   <head>
3     <title>Sample "Hello, World" Application</title>
4   </head>
5   <body bgcolor=white>
6
7     <table border="0" cellpadding="10">
8       <tr>
9
10        <td>
11          <h1>I made it. My first web deployment. My name is Prof. Castro</h1>
12        </td>
13      </tr>
14    </table>
15
16    <p>This is the home page for the HTML5/CSS application. </p>
17
18  </body>
19 </html>
20
```

## Add Text to a Web Page

- Type the text for the web page
- Add HTML tags to specify the element type for each text item, for example
  - `<title>` and `</title>`: text that appears in the web browser's title bar
  - `<h1>` and `</h1>`: highest level heading
  - `<p>` and `</p>`: paragraph of text

# Add Text to a Web Page (continued)

- Title, h1, and p elements entered

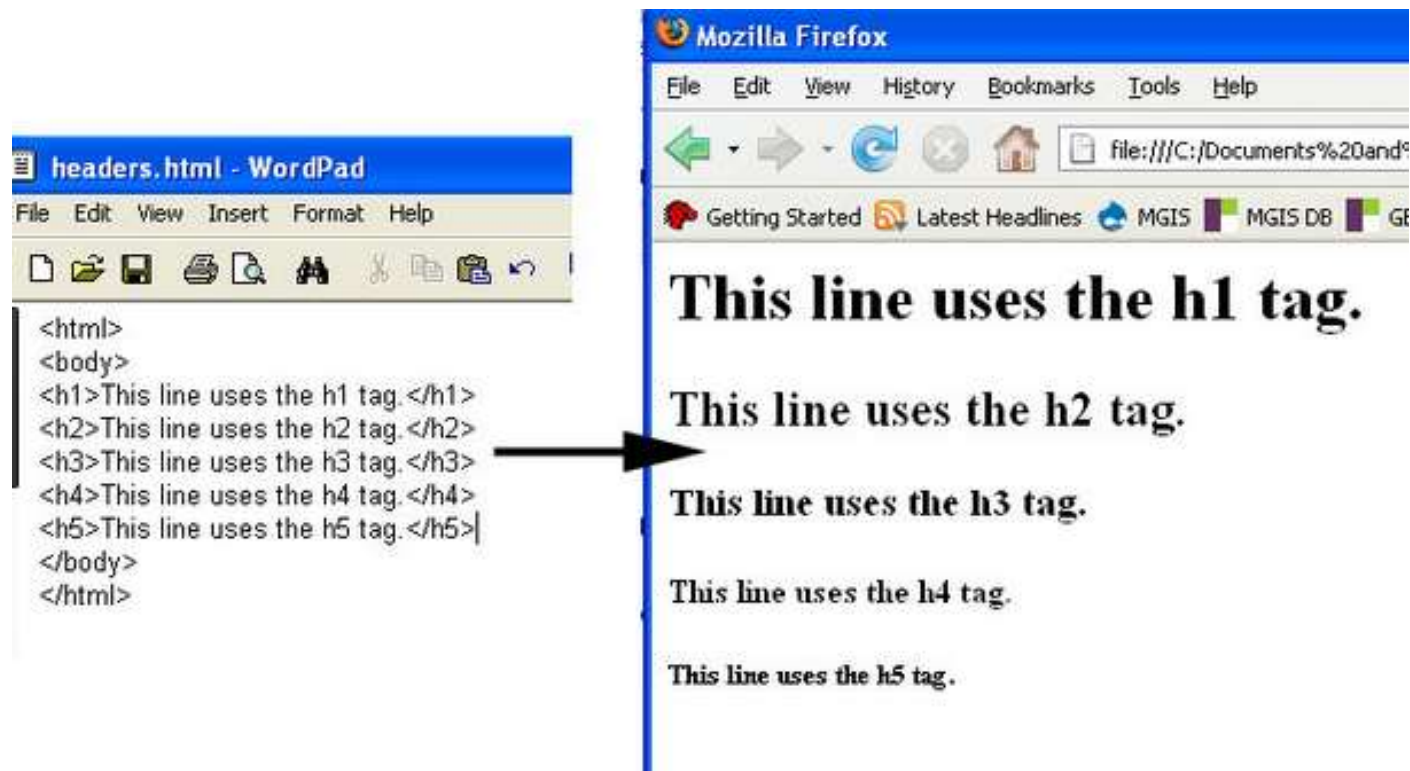
```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>Lakeland Reeds Bed and Breakfast</title>
5   </head>
6   <body>
7     <h1>Lakeland Reeds Bed and Breakfast</h1>
8     <p>A country getaway perfect for fishing, boating, biking, or just watching the day
9     go by.</p>
10    <p>(218) 555-5253</p>
11  </body>
12 </html>
```

Diagram illustrating the HTML code structure with annotations:

- title element**: Points to the `<title>Lakeland Reeds Bed and Breakfast</title>` line.
- h1 element**: Points to the `<h1>Lakeland Reeds Bed and Breakfast</h1>` line.
- p element for business description**: Points to the first paragraph `<p>A country getaway perfect for fishing, boating, biking, or just watching the day go by.</p>`.
- p element for contact information**: Points to the second paragraph `<p>(218) 555-5253</p>`.

# Add Text to a Web Page (continued)

- Example of heading elements.



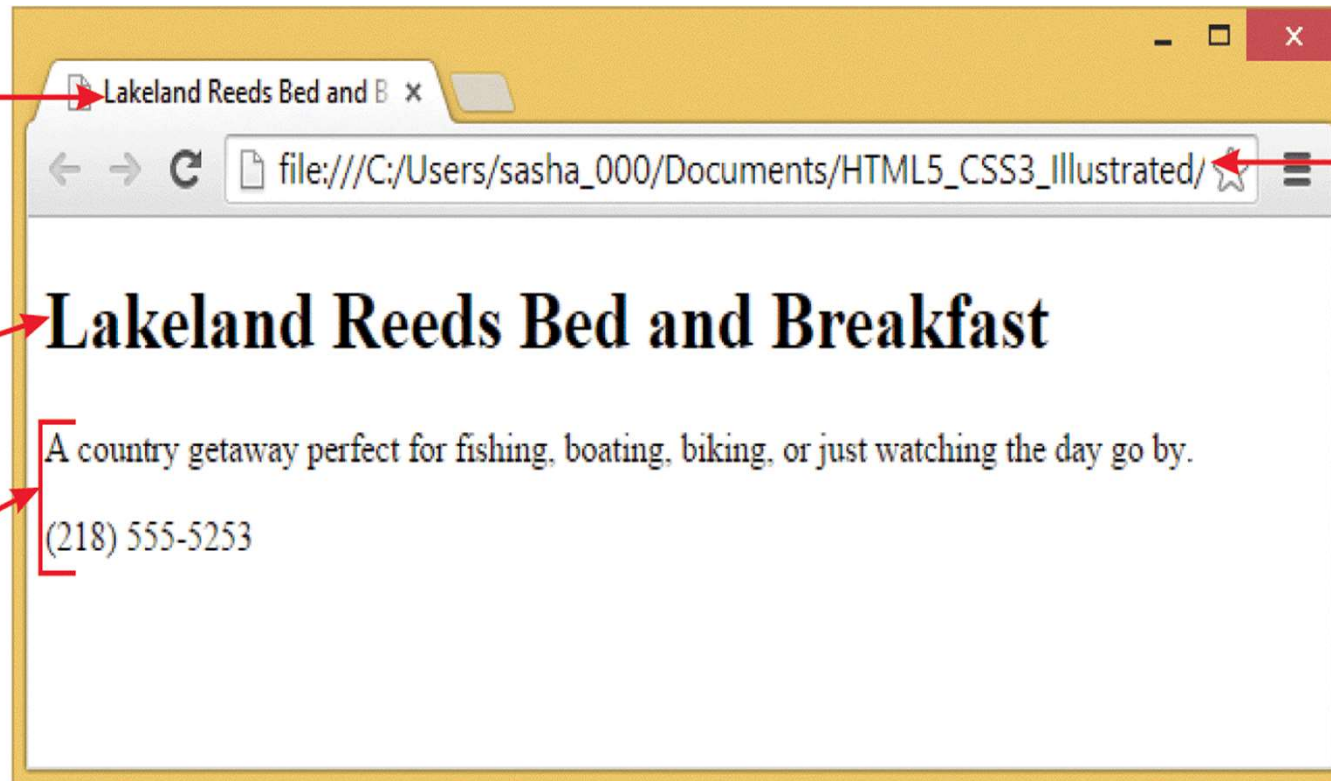
# Add Text to a Web Page (continued)

- Example of the site (preview)

Contents of  
title element  
displayed in tab

Contents of  
h1 element  
displayed as  
larger text

Browser displays  
p elements as  
standard text



Location of  
file; your path  
will differ



# Add Text to a Web Page Quick Quiz

- a. T/F In order to write a web page, you need to first write all the text and then add all the tags.
- b. T/F Nested elements must be indented with respect to parent elements in order for the HTML code to be properly displayed in a browser.
- c. T/F An HTML document is designed to indicate the meaning of the web page elements.
- d. T/F A Cascading Style Sheet is designed to describe the appearance of web page elements.



# Add a Comment to a Web Page

- HTML comments add information not shown in the web browser
- Use to explain what code does or to point out beginning and end of parts of the code
- Comments
  - Defined by `<!-- ... -->`
  - Can be single line
  - Can be multi-line

## Unit A

# Add a Comment to a Web Page (continued)

- Comment text added to an HTML document

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>Lakeland Reeds Bed and Breakfast</title>
5     <!--
6       Lakeland Reeds Bed and Breakfast main web page
7       Filename: index.html
8
9       Author:   Paduma Egal
10      Date:    9/26/2018
11      HTML5 and CSS3 Illustrated Unit A, Lessons
12    -->
13   </head>
14   <body>
15     <h1>Lakeland Reeds Bed and Breakfast</h1>
16     <p>A country getaway perfect for fishing, boating, biking, or just watching the day
17     go by.</p>
18     <p>(218) 555-5253</p>
19   </body>
20 </html>
```

Comment text entered between opening and closing comment tags

**HTML Syntax: <!--...--> Tag**

Example: <!-- Write your comments here -->

## Unit A

# Add a Comment to a Web Page (example)

`<!-- I'm a single-line comment. -->`

`<p>This is where you write your paragraph.</p>`

`<!-- Remember to add more information here  
about your detailed plan. I'm multi-line document.  
-->`

**Purpose:** Can be used for notifications/reminders in your HTML.

## Unit A



# Add a Comment to a Web Page (Quick Quiz)

- a. If the opening and closing tag for a comment are on the same line, this is considered a(n) \_\_\_\_\_ comment.
- b. T/F Comments are visible in the web page if the user sets the user agent to show comments.
- c. T/F Comments are only needed for complex documents.

## Unit A

# Preview Your Web Page on a Desktop Computer

- To preview a web page open it in one or more user agents
  - Allows page writer to research problems and correct them before publishing the page
- Use file manager to open web page in one or more browsers
- Note differences in the way the page is displayed in different browsers

## Unit A

# Preview Your Web Page on a Desktop Computer (continued)

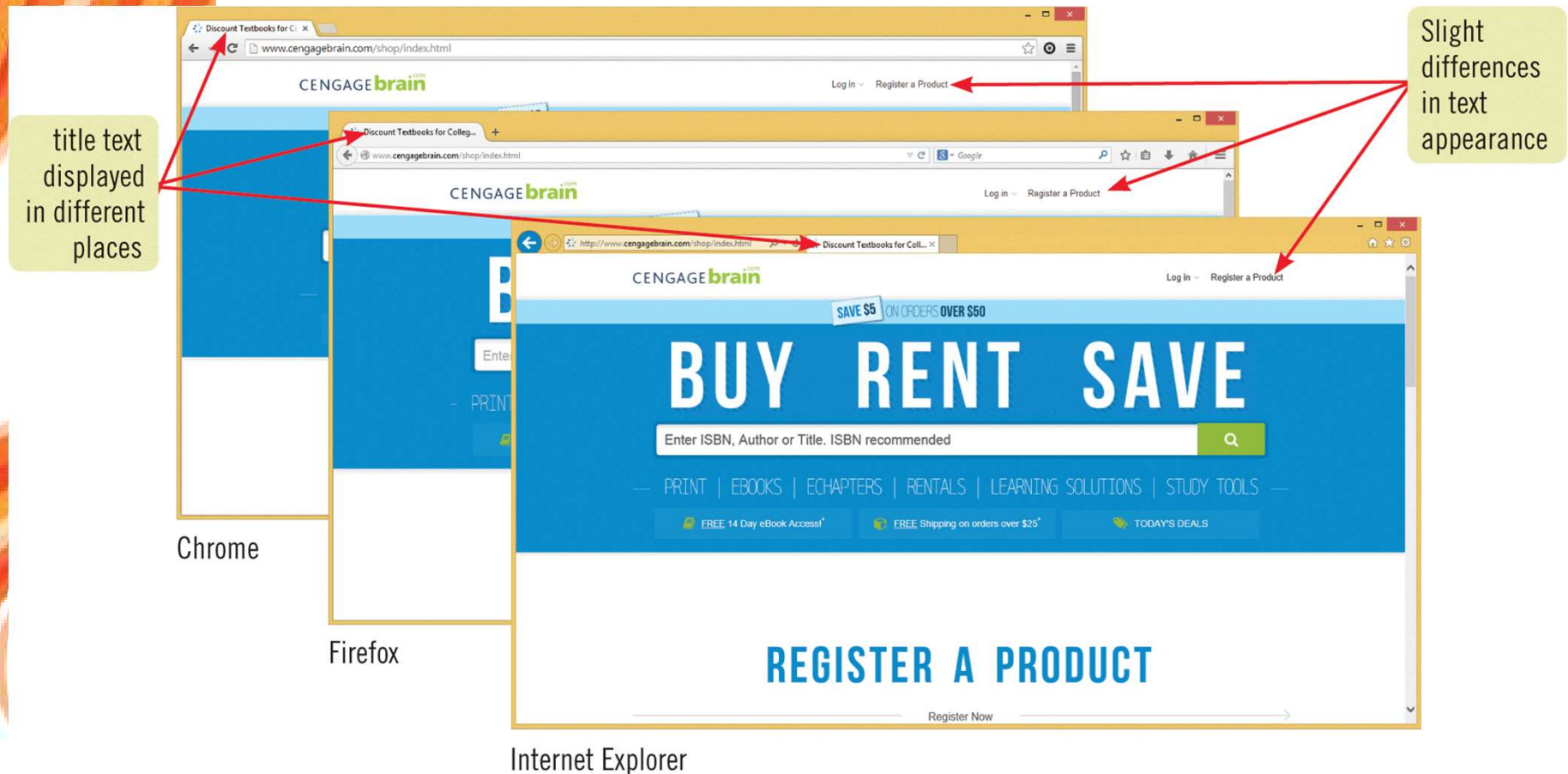
- Preview of web page in Google Chrome



## Unit A

# Preview Your Web Page on a Desktop Computer (continued)

- Preview of web page in different browsers.



## Unit A

# Configure Web Server Software

- Web server: computer running web server software and connected to the Internet, i.e., Apache, Tomcat ??
- Use a web server to open a file on desktop computer on another device, like a mobile phone
- Aptana Studio 3, free code editor with built-in web server



## Unit A

# Configure Environment (Web Server)

- Web server: computer running web server software and connected to the Internet, i.e., Apache, Tomcat etc.



## Unit A

# Install/Configure Tools

Aptana Studio 3, free **code editor** with built-in web server



ATOM – a hackable text editor

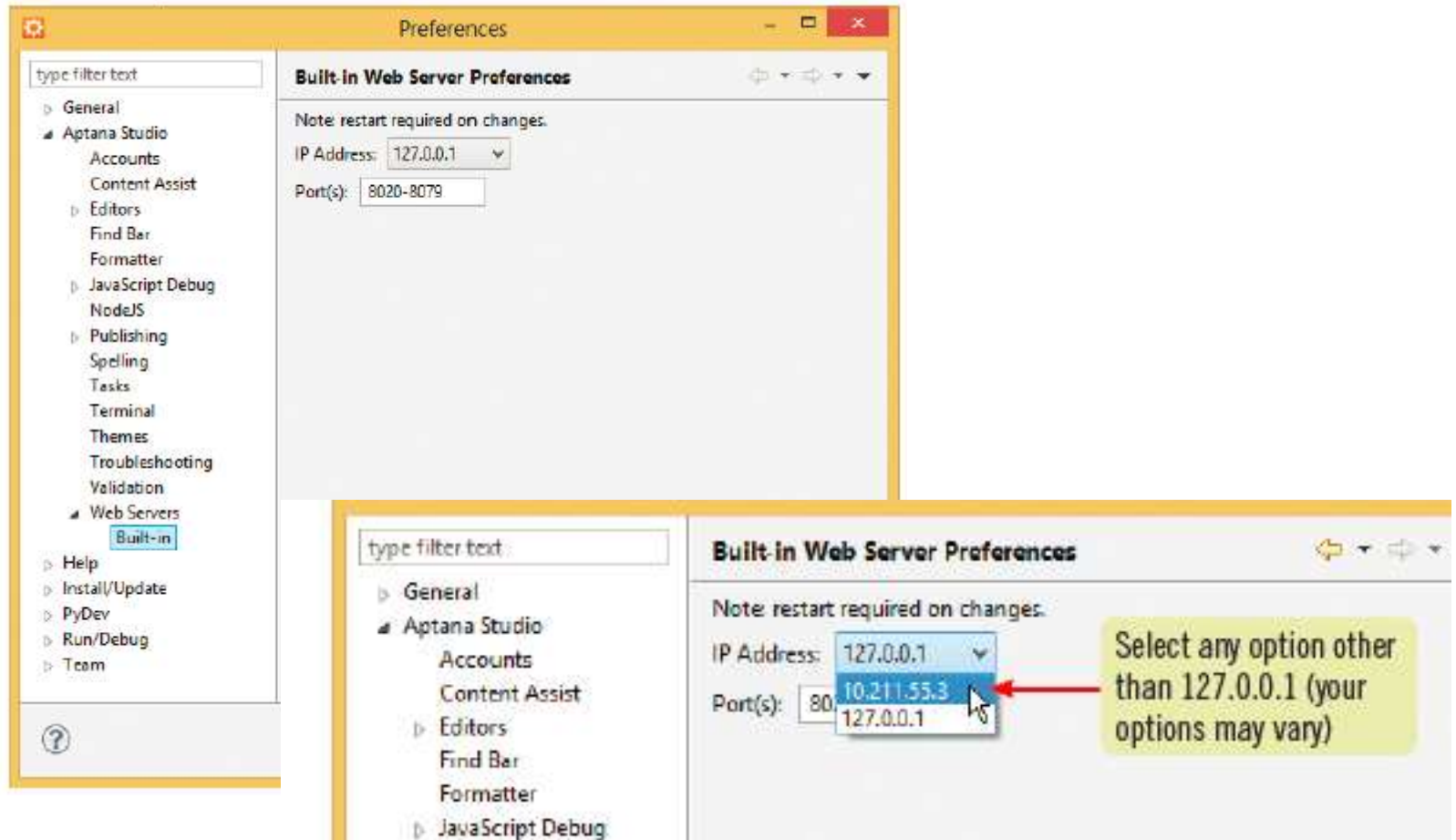


**Note:** These are the options to edit your code.

# Unit A

## Configure Web Server Software (continued)

- Accessing Aptana web server





## Unit A

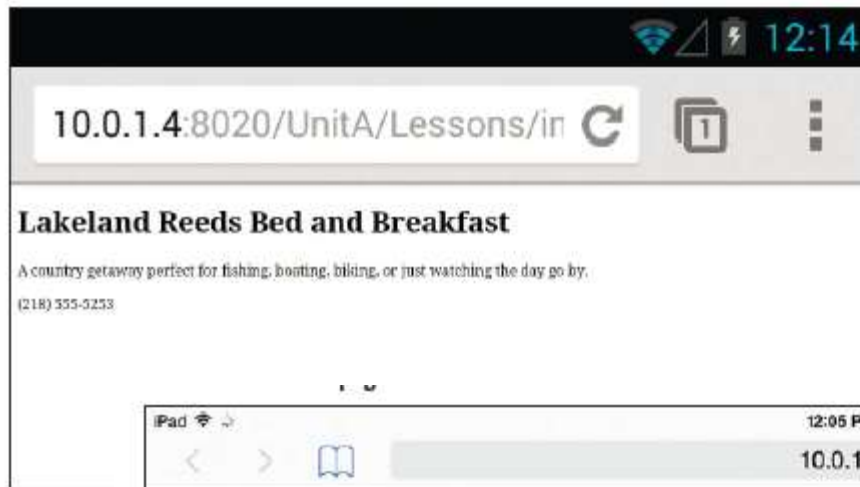
# Preview Your Web Page on Mobile Devices

- Important to test web page on variety of devices, including desktops, tablets, and mobile phones
- Web pages are rendered differently on different devices
- Testing helps you see what changes, if any, need to be made
- Must be connected to a web server to test on a mobile phone

## Unit A

# Preview Your Web Page on Mobile Devices

- Web page phone and tablet



## Unit A

# Terminologies

**wireframe** - allows you to define the information hierarchy of your design, making it easier for you to plan the layout according to how you want your user to process the information.

**World Wide Web** - allows documents to be connected to other documents by hypertext links.

**World Wide Web Consortium (W3C)** - The World Wide Web Consortium (W3C) is an international community that develops open standards ---operates under our Code of Ethics and Professional Conduct.

**tag** - term assigned to a piece of information

**storyboard (dictionary.com)** - a sequence of drawings, typically with some directions and dialogue, representing the shots planned for a movie or television production.

**website** – location connected to the internet.

**HTML** (Hypertext Markup Language) - a standardized system for tagging text files to achieve font, color, graphic, and hyperlink effects on World Wide Web pages

- Prior planning is a crucial component in designing a good website
- When planning a website, the designer must consider the goals and objectives of the site, the target audience, the type of site, the budget, and the timeline
- Use a wireframe to outline the components of a website

## Summary (continued)

- Use a storyboard to show links between the pages
- HTML is a coding language
- An HTML document is a text document that defines a structure of the text to be displayed
- The structure of the text to be displayed is defined by the use of tags



## Summary (continued)

- An HTML document includes
  - `html` opening and closing tags
  - `head` opening and closing tags
  - `body` opening and closing tags
  - Other tags nested within
- HTML elements include
  - `title` tags for titles
  - `h` tags for headings (`h1` – `h6`)
  - `p` tags for paragraphs

# Summary (continued)

- Comments provide additional information; not viewed in the browser
- Preview web page on different devices using different browsers; look for unexpected results
- Use a web server to view web page on mobile phones