School: Ba Sangam College   **Year / Level: 13**

Subject: Computer Studies   **Name of Student**: _____

Strand	3 – Application Packages
Sub strand	3.1 – Web Designing
Content Learning Outcome	Discuss and develop web design skills

Website Construction

- ❖ Developing the web site
- ❖ A fair amount of the web design process involves the creation and troubleshooting of the documents, style sheets, scripts, and images that make up a site.
- ❖ Web developers may not design the look or structure of the site themselves, but they do need to communicate well with designers and understand the intended site goals so they may suggest solutions that meet those goals.
- ❖ The broad activities that fall under development are authoring, styling, and scripting/programming.

Authoring/markup

- ❖ Authoring is the term used for the process of preparing content for delivery on the Web, or more specifically, marking up the content with HTML tags that describe its content and function.

Styling

- ❖ In web design, the appearance of the page in the browser is controlled by style rules written in CSS (Cascading Style Sheets).

Scripting and programming

- ❖ As the Web has evolved into a platform of applications for getting stuff done, programming has never been more important.
- ❖ JavaScript is the language that makes elements on web pages does things. It adds behaviors and functionality to elements in the page and even to the browser window itself.
- ❖ There are other web-related programming languages as well, including PHP, Ruby, Python, and ASP.NET, that run on the server and process data and information before it is sent to the user's browser.

Content strategy and creation

- ❖ This is the actual website creation process, is the critical matter of the site's content itself.
- ❖ Anyone who uses the title "web designer" needs to be aware that everything we do supports the process of getting the content, message, or functionality to our users.
- ❖ Furthermore, good writing can help the user interfaces we create be more effective.
- ❖ When the content isn't written right, the site can't be fully effective.
- ❖ A Content Strategist makes sure that every bit of text on a site, from long explanatory text down to the labels on buttons,

supports the brand identity and marketing goals of the company.

- ❖ Content strategy may also extend to data modeling and content management on a large and ongoing scale, such as planning for content reuse and update schedules.

Web Development language and Technologies Hypertext Markup Language (HTML)

HTML (Hyper Text Markup Language) is the language used to create web page documents. There are a few versions of HTML in use today: HTML 4.01 is the most firmly established and the newer, more robust HTML5 is gaining steam and browser support. Both versions have a stricter implementation called XHTML (eXtensible HTML), which is essentially the same language with much stricter syntax rules. HTML is not a programming language; it is a markup language, which means it is a system for identifying and describing the various components of a document such as headings, paragraphs, and lists. The markup indicates the document's underlying structure. Web designer don't need programming skills—only patience and common sense—to write HTML.

Cascading Style Sheets (CSS)

While HTML is used to describe the content in a web page, it is Cascading Style Sheets (CSS) that describe how that content should look. In the web design, the way the page looks is known as its presentation. That means fonts, colors, background images, line spacing, and page layout and so on. With the newest version (CSS3), web designer can even add special effects and basic animation to the page. CSS also provides methods for controlling how documents will be presented in contexts other than the traditional desktop browser, such as in print and or on devices with small screen widths. It also has rules for specifying the non-visual presentation of documents, such as how they will sound when read by a screen reader (although those are not well supported). Style sheets are also a great tool for automating production because web designer can change the way an element looks across all the pages in the site by editing a single style sheet document.

JavaScript/DOM scripting

JavaScript is a scripting language that is used to add interactivity and behaviors to web pages, including: • Checking form entries for valid entries

• Swapping out styles for an element or an entire site

• Making the browser remember information about the user for the next time she visits

• Building interface widgets, such as expanding menus

JavaScript is used to manipulate the elements on the web page, the styles applied to them, or even the browser itself. There are other web scripting languages, but JavaScript is the standard and most ubiquitous.

Server-side programming

Some simple websites are collections of static HTML documents and image files, but most commercial sites have more advanced functionality such as forms handling, dynamically generated pages, shopping carts, content management systems, databases, and so on. These functions are handled by web applications running on the server. There are a number of programming languages and frameworks that are used to create web applications, including:
• PHP (CakePHP, CodeIngniter, Drupal)
• Python (Django, TurboGears)
• Ruby (Ruby on Rails, Sinatra)
• JavaScript (Node.js, Rhino, SpiderMonkey)
• Java (Grails, Google Web Toolkit, JavaServer Faces)
• ASP.Net (DotNetNuke, ASP.Net MVC) There are a series of guidelines that web designer needs to follow to make sure site conforms to best practice. These guidelines encompass:
  ✓ Browser compatibility
  ✓ Screen resolution
  ✓ Web Accessibility

Browser Compatibility

A browser is the software used to display a web site on a computer. There are several of these products available (as well as different versions for each product), and each of them can display a sites lightly differently. To ensure web site is presented correctly on the broadest possible range of computers, web designer must make sure the site is fully compatible with the browsers. A good way to check what software people use to view sites is by analyzing web site traffic analytics.

Screen Resolution

Screen resolution defines the number of pixels that can be displayed on a computer monitor. This number is increasing all the time. However adoption rates vary, which means that web designer cannot create sites for the largest possible size. If web designer do, many people will not be able to use the web site properly. Instead, web designers need to create sites that can be optimally displayed on the largest number of screens, e.g.99% of all users. The current accepted standard for doing so is 1024 pixels wide by 768 pixels high.

Web Accessibility

Web Accessibility is a principle that tries to make sure visitors with disabilities can locate, navigate, read and understand web content. The main impairments covered by this are:
• Vision, e.g. blindness, colour blindness.
• Hearing, e.g. deafness.
• Physical and speech e.g. restricted use of limbs.
• Cognitive, e.g. learning difficulties. The way web designer write content can also influence whether web designer meet the WCAG standard or not. In general, web designer should aim for clarity and simplicity in writing.

ACTIVITY

1. Discuss in brief the website construction process. (1 mark)
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_____

2. Differentiate between authoring / markup and styling (2 marks)
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3. Describe CSS. (1 mark)
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_____

4. Give 2 examples of programs used to create web applications (2 marks)
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5. Discuss web Accessibility. (1 mark)
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6. Differentiate between HTML and java script. (2 marks)
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_____

7.list any two impairments that are covered in web accessibility . (1 mark)
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