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COURSE: BSIT

COURSE UNIT: WEB AND MOBILE APPLICATION DEVELOPMENT

LAB 4 SUMMARY

PART1: Introduction to CSS3

What is CSS3?

CSS3, or Cascading Style Sheets level 3, is the latest version of the CSS specification used for styling web documents. CSS is a style sheet language that allows web designers and developers to control the presentation of HTML and XML documents. It separates the structure and content of a document from its presentation, making it easier to manage and style web pages.

Why is CSS3 important in Web Development?

1. **Enhanced Styling:** CSS3 introduces a wide range of new styling options and properties, allowing web developers to create more visually appealing and sophisticated designs. This includes features such as gradients, shadows, custom fonts, and more.
2. **Responsive Design:** With the introduction of media queries in CSS3, developers can create responsive designs that adapt to different devices and screen sizes. This is crucial for providing a consistent and user-friendly experience across desktops, tablets, and smartphones.
3. **Improved Layout Options:** CSS3 introduces layout models like Flexbox and Grid, providing more flexibility and control over the arrangement of elements on a web page. These layout options simplify the process of creating complex and responsive designs.
4. **Animations and Transitions:** CSS3 allows developers to create animations and transitions without relying on JavaScript or external plugins. This makes it easier to add subtle and visually pleasing effects to web pages, improving the overall user experience.
5. **Reduced Dependence on Images:** With CSS3, developers can use properties like border-radius and box-shadow to create rounded corners and shadow effects directly in the stylesheet, reducing the need for additional image assets. This can improve page load times and reduce bandwidth usage.
6. **Font Customization:** CSS3 enables the use of custom fonts through the **@font-face** rule, allowing designers to use a broader range of typefaces on their websites. This contributes to improved typography and overall design aesthetics.
7. **Cross-Browser Compatibility:** While not all features of CSS3 are supported across all browsers, the situation has significantly improved over time. Modern browsers generally provide good support for CSS3, and developers can use feature detection and fallbacks to ensure a consistent experience across different browsers.

8. **Code Maintainability:** CSS3 promotes cleaner and more maintainable code by allowing developers to use more efficient and expressive styles. This separation of concerns (HTML for structure, CSS for styling, and JavaScript for behaviour) enhances code readability and makes it easier to update or modify specific aspects of a website.
9. **Reduced Dependence on JavaScript:** Some functionality that previously required JavaScript, such as animations and transitions, can now be achieved using CSS3 alone. This can lead to more efficient code and improved performance

Part 2: Styling HTML Elements

- Create a New HTML file
- Open your text editor and create a new HTML file or use an existing one from week 3

Linking CSS

Inside the <head> section of your HTML document, link an external CSS file (e.g. style.css) using the <link> element with the rel and href attributes.

HTML

```
< link rel= "stylesheet" ref= "style.css">
```

Basic styling

In your CSS file, select a few HTML elements and apply basic styles like changing color, font size, and background color.

CSS

```
H1{
```

```
Color: red;
```

```
Font-size: 30px
```

```
}
```

```
P{
```

```
Color: blue;
```

```
Font-size: 16px
```

```
Background-color: #ccc;
```

```
}
```

CSS Comments:

You can add comments to your css code to document your styles

CSS

```
/*this is a comment*/
```

Part 3: Selectors and Properties

CSS selectors identify the HTML elements you want to style. There are several types of selectors including element selectors, class selectors and id selectors.

Box Model

The CSS box model is a system for defining the layout of elements on a web page. It includes properties like padding and border etc

CSS

```
.box{
```

```
Margin: 10px/*Space around the element*/
```

```
Padding:20px/* Space inside the element*/
```

```
Border: 1px /* border around the element*/
```

```
}
```

Part 4: Advanced styling

You can style text elements using properties like font-family, text-align, text-decoration, and line-height

You can apply background colors, images, and borders to elements using relevant CSS properties