

FSD Assignment - I

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Aim:

To develop responsive web design using HTML5, containing a form. style the pages using CSS. Use of tag selector, class selector and id selector. Use inline, Internal and External CSS. Apply Bootstrap css.

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Objective:

- 1) To understand HTML tags
- 2) To learn the styling of web pages using CSS
- 3) To learn Bootstrap Front End Framework.

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Theory:

- 1) Define Responsive Web Design (RWD). What is primary goal?

RWD is an approach to web design that makes web pages render well on a variety of devices and windows on screen sizes from minimum to maximum width.

Primary goal:

- 2) To provide an optimal viewing and interaction experience such as easy reading and navigation with minimum of resizing, panning and scrolling across a wide range of devices, especially mobile phones and tablets.
- 2) Explain role of `<meta name="viewport" ...>` tag. Why is this tag essential for RWD.

State is managed within component itself

## 2) The `<meta name="viewport">` tag:

Role:

This tag is placed in the HTML `<head>` and tells the browser how to control the page's dimensions and scaling to fit the device's screen.

Essential for RWD:

Without it, mobile browsers would render the page at a default desktop width, appearing zoomed out and causing poor user experience.

The tag ensures the page width is set to the device's width and initial zoom level is set to 1:1, allowing content to be readable without zooming in.

## 3) Bootstrap and Grid System Assistance in RWD?

Bootstrap's grid system uses a system of rows and columns to structure web page layouts.

How it Adapts: You define content within rows and columns and automatically adjust their width and arrangement after collapsing into a single column on smaller screens, to fit the new viewport. This flexibility ensures content flows correctly, creating a seamless experience.

## 4) Differentiating between Tag, Class and ID selectors

Tag selector:

Selects elements based on their HTML tag name. e.g: `p` for all paragraph tags, `h1` for all heading 1 tags.

Class selector:

Selects all elements that have a specific class attribute.

assigned to them (eg., my-class selects all elements with class = "my-class"). A class can be used on multiple elements.

### ID selector:

Selects a single, unique element that has a specific id attribute (eg: #unique-id selects the element with id = "unique-id"). Each ID on a page must be unique.

## ⑤ Ways to apply CSS to an HTML document?

### 1) Inline styles:

CSS properties are added directly to individual HTML elements using the style attribute (eg <p style = "color: blue;"> This text is blue. </p>).

### 2) Internal Stylesheets:

CSS rules are placed within a <style> tag in the <head> section of the HTML document. This is useful for single-page websites or when the styling is specific to that one document.

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