Assignment Questions 3

Q.1 What is a Media Query in CSS, and what is its purpose?

Ans -

Media query is a property of CSS that defines the style of web pages for different-different screen size devices. It allows us to create responsive designs that adapt to different devices and provide an optimal viewing experience.

The purpose of media queries is to enable the developers to write CSS rules that target specific devices or conditions. By using media queries, you can define different stylesheets or apply specific styles within a single stylesheet for different devices or device characteristics.

E.g-

```
/* Styles applied when the screen width is in between 768px and 1024px*/
@media screen and (max-width:1024px) and (min-width:768px) {
    body{
        Background-color: black;
    }
}

/* Styles applied when the screen width is in between 480px and 768px */
@media screen and (max-width:768px) and (min-width:480px){
    body{
        Background-color: green;
    }
}

/* Styles applied when the screen width is 480px or less*/
@media screen and (max-width:480px){
    body{
        Background-color: yellow;
    }
}
```

Q.2 How do you define a media query in CSS?

Ans -

To define media query in CSS we use @media keyword

Syntax -

```
@media media-type and (media-feature) {
    /* CSS rules to apply when the media query conditions are met
*/
  }
```

- **@media:** This keyword introduces the media query rule.
- **media-type:** It specifies the type of media query applied on this . It can be all (default), screen, print, speech, or other media types.
- **media-feature:** This represents the specific characteristics or conditions of the targeted device. Examples of media features include width, height, orientation, resolution, and more. Media features are used to define the criteria for when the styles inside the media query block should be applied.

Q.3 Explain the concept of Breakpoints in Responsive Web Design and How They are used in Media Queries.

Ans -

Common breakpoints that is used to define the screen size -

- 320px — 480px: Mobile devices

```
@media screen and (min-width:320px) and (max-width:480px) {
    /* it is applied for screen size greater than or equal to 320px
and less than or equal to 480px*/
}
```

- 481px — 768px: iPads, Tablets

```
@media screen and (min-width:481px) and (max-width:768px) {

    /* it is applied for screen size greater than 480px and less
than or equal to 768px*/

}
```

- 769px — 1024px: Small screens, laptops

```
@media screen and (min-width:769px) and (max-width:1024px) {
    /* it is applied for screen size greater than 768px and less
than or equal to 1024px*/
}
```

- 1025px—1200px: Desktops, large screens

```
@media screen and (min-width:1024px) and (max-width:1200px) {
    /* it is applied for screen size greater than 1024px and less
than or equal to 1200px*/
}
```

- 1201px and more— Extra large screens, TV

```
@media screen and (min-width:1201px) {

    /* it is applied for screen size greater than 1200px */

}
```

Q.4 What is the purpose of using Media Queries for Print Media?

Ans -

Media queries for print media are used to customize the presentation and layout of web content specifically for printing purposes. When users choose to print a webpage, media queries allow developers to apply different styles and formatting rules that are optimized for the printed medium.

The purpose of using media queries for print media is to enhance the readability and usability of printed content. It allows developers to control various aspects of the printed output, such as page margins, page breaks, font sizes, colors, and other formatting details. By using media queries, developers can ensure that the printed version of a webpage is well-structured, properly formatted, and optimized for a physical medium like paper.

Q.5 What is the purpose of the orientation media feature?

Ans -

The purpose of the orientation media feature is to apply different styles and layout rules based on the orientation of the device. It is primarily used to customize the presentation of web content based on whether the device is in a portrait or landscape orientation.
The orientation media feature is part of CSS3 media queries and provides a way for developers to target specific styles based on the orientation of the

device. The two possible values for the orientation media feature are "portrait" and "landscape."

Q.6 Imagine you are a web developer working for a creative agency that specializes in building visually appealing and interactive websites. The agency has recently received a client request to create a landing page similar to the design of the one-page website: https://www.getonecard.app/. The client wants to showcase a video prominently on the page to engage visitors.

Your task is to create a simple webpage that replicates the one-page landing page design, including a responsive layout and an HTML video. The below images are for your reference. Some browsers don't allow you to play videos without the controls attribute. So, you can add controls here, we will learn how to play a video without the controls attribute in the later sections.

Ans -

https://github.com/Lakshman76/web-development/tree/main/PPT_WebDev/Assignment_03/OneCard

Q.7 You are tasked with building a webpage that displays an image gallery using a grid layout. The challenge is to ensure the gallery is visually appealing and functional on both large and small screens. On large screens, the gallery should display multiple images per row, while on small screens, it should collapse into a single column for optimal viewing. Refer to the attached images for visual reference. Implement this using CSS Grid and media queries for responsiveness.

Ans -

https://github.com/Lakshman76/web-development/tree/main/PPT_WebDev/Assignment_03/Image_gallery

Q.8 In this coding challenge, your task is to create an information section for the previously built OneCard webpage clone, focusing on the different modes like dark and light modes. The webpage should look different depending on the screen size: dark mode for larger screens and light mode for smaller devices. The reference images are attached below

Ans -

https://github.com/Lakshman76/web-development/tree/main/PPT_WebDev/Assignment_03/OneCard_infoSection

Q.9 You have reached the final task of learning responsive web design, which involves designing a responsive footer. Your goal is to build a simple webpage footer that matches the design shown in the attached image. The footer should adapt to different screen sizes, ensuring optimal visibility and alignment of the content. Refer to the attached image for a visual reference.

Ans -

https://github.com/Lakshman76/web-development/tree/main/PPT_WebDev/Assignment_03/responsive_footer

Q.10 You have been given to create a student dashboard page that includes a student details table. The challenge lies in handling the table's display on different screen sizes. On large screens, the table should be fully visible, while on small screens, it should have an internal scroll to ensure proper visibility of information. Refer to the attached images for visual reference.

Ans -