TASK1: Describe the main differences between the CSS Flexbox layout model and the CSS Grid layout model. When would you choose one over other ?

SOLUTION:

**FLEXBOX :** The flexible box layout module, usually referred to as flexbox, was designed as a one-dimensional layout model, and as a method that could offer space distribution between items in an interface and powerful alignment capabilities

**CSS GRID :** CSS Grid Layout (aka “Grid” or “CSS Grid”), is a two-dimensional grid-based layout system that, compared to any web layout system of the past, completely changes the way we design user interfaces. CSS has always been used to layout our web pages

You might choose Flexbox when you need to arrange items along a single axis for example when creating navigation bar,header/footer layout or aligning element within a container.flexbox is great for responsive design where item can vary in size.

You might choose CSS GRID when you need to create more complex,two-dimensional layout with row and column it is useful when you have grid like structure

TASK:2 . Explain the role of following key properties in the flexbox layout model?

SOLUTION:

Justify-content: It defines the alignment along the main axis. It helps distribute extra free space leftover when either all the flex items on a line are inflexible, or are flexible but have reached their maximum size. It also exerts some control over the alignment of items when they overflow the line.

Align-items: The align-items property defines the default behavior for how items are laid out along the cross axis (perpendicular to the main axis). Imagine a horizontal flexbox layout. That horizontal flow is the main axis, so align-items is the alignment opposite that, on the vertical axis. Bear in mind that changes when the main axis changes, and the cross axis changes with it.

Gap: The gap property in CSS is a shorthand for row-gap and column-gap, specifying the size of gutters, which is the space between rows and columns within grid,flex, and multi-column layouts.

Flex-direction: The flex-direction property is a sub-property of the flexible box layout module. It establishes the main-axis, thus defining the direction flex items are placed in the flex container.

Flex-wrap: The flex-wrap property is a sub-property of the flexible box layout module It defines whether the flex items are forced in a single line or can be flowed into multiple lines. If set to multiple lines, it also defines the cross-axis which determines the direction new lines are stacked in, aiding responsiveness layout behaviour without CSS media queries.

TASK3: Write the code to center a div using CSS Flexbox.

SOLUTION:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>centerthediv</title>

<style>

\*{

margin: 0;

padding: 0;

}

body{

height: 100vh;

width: 100vw;

display: flex;

justify-content: center;

align-items: center;

}

.red{

width: 400px;

height: 400px;

background-color: red;

}

</style>

</head>

<body>

<div class="red"></div>

</body>

</html>

TASK:4 A client of yours want a pricing section on their website to showcase their newly introduced premium plans

SOLUTION:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>change pricing</title>

<link rel="stylesheet" href="style.css">

</head>

<body>

<section class="pricing-section">

<div class="card">

<h2 class="plan-name">free plan</h2>

<p class="plan-for">for personal</p>

<h2 class="pricing">$0</h2>

<p class="features"> <span><img src="light\_tick.png" alt="">1 user</span></p>

<p class="features"> <span><img src="light\_tick.png" alt="">4 web mails</span></p>

<p class="features"> <span><img src="light\_tick.png" alt="">responsive website</span></p>

<p class="features"> <span><img src="light\_tick.png" alt="">free ssl</span></p>

<div class="subscribe-container">

<button class="subscribe-now-button">Subscribe now</button>

</div>

</div>

<div class="card black">

<h2 class="plan-name">basic plan</h2>

<p class="plan-for">for small business</p>

<h2 class="pricing">$29</h2>

<p class="features"><span><img src="dark\_tick.png" alt="">4 user</span></p>

<p class="features"><span> <img src="dark\_tick.png" alt="">10 web mails</span></p>

<p class="features"><span> <img src="dark\_tick.png" alt="">responsive website</span></p>

<p class="features"><span> <img src="dark\_tick.png" alt="">free ssl</span></p>

<div class="subscribe-container">

<button class="subscribe-now-button black-btn">Subscribe now</button>

</div>

</div>

<div class="card">

<h2 class="plan-name">pro plan</h2>

<p class="plan-for">for enterprise</p>

<h2 class="pricing">$49</h2>

<p class="features"><span> <img src="light\_tick.png" alt="">unlimited user</span></p>

<p class="features"><span> <img src="light\_tick.png" alt="">unlimited web mails</span></p>

<p class="features"><span> <img src="light\_tick.png" alt="">responsive website</span></p>

<p class="features"><span> <img src="light\_tick.png" alt="">free ssl+seo</span></p>

<div class="subscribe-container">

<button class="subscribe-now-button">Subscribe now</button>

</div>

</div>

</section>

</body>

</html>

CSS FILE

.pricing-section{

min-height:100vh;

padding-top: 100px;

display: flex;

justify-content: center;

gap: 20px;

background-color: #F4F2FD;

box-sizing: border-box;

}

.card{

width: 250px;

height: fit-content;

background-color: white;

border-radius: 7px;

padding-top: 20px;

padding-left: 35px;

}

.plan-name{

font-size: 36px;

}

.pricing{

font-size: 36px;

font-weight: 100;

margin: 12px 0;

}

.features{

display: flex;

align-items: center;

}

.black{

background-color: #202842;

color: white;

}

.black-btn{

background-color: white;

color: black;

}

.subscribe-container{

display: flex;

margin-left: -35px;

}

.subscribe-now-button{

background-color: #222268;

color: white;

border-radius: 24px;

font-size: 18px;

padding: 10px 35px;

margin: 30px auto;

border-color: transparent;

}

TASK 5: Build a clone of IRCTC ticket booking page.