

Bài 1:

```
<!DOCTYPE html>
<html>

<head>
  <title>Div Container Example</title>
  <style>

    .container {
      display: flex;
      flex-wrap: wrap;
    }

    .number {
      width: 50px;
      height: 50px;
      display: flex;
      align-items: center;
      justify-content: center;
      margin: 5px;
      font-weight: bold;
    }

    .even {
      background-color: lightgreen;
    }

    .odd {
      background-color: yellow;
    }

    .prime {
      background-color: red;
    }

    .main {
      max-width: 1000px;
      margin-left: auto;
      margin-right: auto;
      margin-top: 10px;
    }
  </style>

```



```
</div>

<script>
    function generateNumber() {
        var container =
document.getElementById('number-container');
        container.innerHTML = "";
        var inputElement = document.getElementById("number");
        let number = inputElement.value;
        let errorEle = document.getElementById("error-span");
        if (isNaN(number) || number === "") {
            errorEle.innerText = "Hãy nhập 1 chữ số vào input"
            return;
        } else if (number <= 0) {
            errorEle.innerText = "Hãy nhập 1 chữ số lớn hơn 0"
            return;
        }

        for (var i = 1; i <= number; i++) {
            var numberDiv = document.createElement('div');
            numberDiv.textContent = i;
            numberDiv.classList.add('number');

            if (i % 2 === 0) {
                numberDiv.classList.add('even');
            } else {
                numberDiv.classList.add('odd');
            }

            if (isPrime(i)) {
                numberDiv.classList.add('prime');
            }

            container.appendChild(numberDiv);
        }
    }

    function isPrime(num) {
        if (num <= 1) return false;
        if (num === 2) return true;
        if (num % 2 === 0) return false;
```

```

        for (let i = 3; i <= Math.sqrt(num); i += 2) {
            if (num % i === 0) {
                return false;
            }
        }
        return true;
    }
</script>
</body>

</html>

```

Bài 2:

```

<!DOCTYPE html>
<html lang="en">

<head>
    <title>RK ACADEMY</title>
    <style>
        .completed {
            background-color: green;
        }

        .ongoing {
            background-color: yellow;
        }

        .coming {
            background-color: red;
        }
    </style>
</head>

<body>
    <div class="wrapper">
        <h1>HELLO EVERYBODY 2023</h1>
        <div id="clock"></div>
        <h2>Thử thách bản thân với javascript</h2>
        <ul>
            <li id="nvg">NEVER GIVE UP!!</li>

```

```

        <li id="academy">Thử thách học code với RK ACADEMY</li>
        <li id="chance">Thử thách bản thân lĩnh vực mới</li>
        <li id="fullstack">Thử thách 6 tháng fullstack</li>
    </ul>
</div>

<script>
    function changeYearColor() {
        var year = new Date().getFullYear();
        var yearElement = document.querySelector('.wrapper h1');
        yearElement.style.color = getRandomColorAndText()[0];
        yearElement.textContent = `Chào mừng đến với rikkei
academy ${year}`;
    }

    function changeDateTimeBackground() {
        var dateTimeElement = document.querySelector('.wrapper
h2');

        dateTimeElement.style.backgroundColor =
getRandomColorAndText()[0];
        dateTimeElement.innerHTML = getRandomColorAndText()[1];
    }

    function getRandomColorAndText() {
        var colors = ['#ff0000', '#00ff00', '#0000ff', '#ffff00',
'#00ffff', '#ff00ff'];
        var texts = ['Thử thách bản thân với javascript',
            'Luôn luôn nỗ lực',
            'Luôn luôn cố gắng',
            'Không sợ khó khăn',
            'Luôn luôn được support tận tình',
            'Luôn luôn đồng hành'];
        var randomIndex = Math.floor(Math.random() *
colors.length);
        return [colors[randomIndex], texts[randomIndex]];
    }

    function applyChallengeStatus() {
        var nvgelement = document.getElementById('nvgelement');
        var academyElement = document.getElementById('academy');
        var chanceElement = document.getElementById('chance');
        var fullstackElement =
document.getElementById('fullstack');

```

```

        nvgelement.classList.add('completed');
        academyelement.classList.add('ongoing');
        chanceelement.classList.add('coming');
        fullstackelement.classList.add('coming');
    }

    function updateClock() {
        var clockElement = document.getElementById('clock');
        clockElement.style.fontSize = "40px";
        clockElement.style.textAlign = "center";
        clockElement.style.background = getRandomColorAndText()[0];
        var currentTime = new Date();
        var hours = currentTime.getHours();
        var minutes = currentTime.getMinutes();
        var seconds = currentTime.getSeconds();

        // Format the time to have leading zeros
        var formattedHours = ('0' + hours).slice(-2);
        var formattedMinutes = ('0' + minutes).slice(-2);
        var formattedSeconds = ('0' + seconds).slice(-2);

        var timeString = formattedHours + ':' + formattedMinutes + ':' + formattedSeconds;
        clockElement.textContent = timeString;
    }

    setInterval(updateClock, 1000);
    setInterval(changeYearColor, 1000);
    setInterval(changeDateTimeBackground, 1000);
    applyChallengeStatus();
</script>
</body>

</html>

```

Bài 3:

```

<!DOCTYPE html>
<html>

<head>

    <style>

```

```
.container {
    display: flex;
    flex-direction: column;
    gap: 50px;
    align-items: center;
    justify-content: center;
    height: calc(100vh - 50px);
}

button {
    padding: 20px;
    font-size: 28px;
    color: black;
    background-color: white;
}

.key-code {
    display: flex;
    justify-content: center;
    align-items: center;
    width: 80px;
    height: 80px;
    font-size: 50px;
    color: green;
    font-weight: 600;
}

span {
    color: green;
    font-weight: 700;
}

.key-name {
    font-weight: 700;
}

</style>
<script>
    document.addEventListener('keydown', function (event) {
        // Get the key code
        var keyCode = event.keyCode;
        var keyName = event.key.toUpperCase();

        // Update the HTML element with the key code
```

```
        var keyCodeElement = document.getElementById('key-code');
        var keyNameElement = document.getElementById('key-name');
        keyCodeElement.textContent = keyCode;
        keyNameElement.innerHTML = "You pressed  " +
`<span>${keyName}</span>`;
    });
</script>
</head>

<body>
    <div class="container">
        <div><button class="key-name" id="key-name">Press any key to
display</button></div>
        <div><button class="key-code" id="key-code"></button></div>
    </div>
</body>

</html>
```

Bài 4:

Bai4.html

```
<!DOCTYPE html>
<html>
<head>
  <title>World Countries Data</title>
  <link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
  <h1 class="center">World Countries Data</h1>
  <div class="button-container center">
    <button id="population-button">Population</button>
    <button id="language-button">Languages</button>
  </div>
  <div id="title"></div>
  <div id="chart-container" class="center"></div>

  <script src="script.js"></script>
</body>
</html>
```

style.css

```
body {
  font-family: Arial, sans-serif;
}

h1.center {
  text-align: center;
}

.button-container.center {
  text-align: center;
  margin-top: 20px;
}

#chart-container {
  width: 700px;
  margin: 10px auto;
}

.chart {
  margin-bottom: 5px;
}
```

```

.bar {
  height: 30px;
  background-color: #2196F3;
}

.country-data {
  margin-top: 5px;
  text-align: center;
}

.div-item {
  display: flex;
  gap: 10px;
  align-items: flex-start;
  margin-top: 10px;
}

.div-item > div {
  min-width: 100px;
  text-align: left;
}

#title{
  text-align: center;
  margin-top: 10px;
}

button {
  padding: 8px;
  width: 120px;
  background-color: rgb(255, 174, 0);
  border: none;
  border-radius: 5px;
}

```

script.js

```

// Population data
const populationData = [
  { country: "China", population: 1444216107 },
  { country: "India", population: 1393409038 },
  { country: "United States", population: 332915073 },
  { country: "Indonesia", population: 276361783 },

```

```

    { country: "Pakistan", population: 225199937 },
    { country: "Brazil", population: 213993437 },
    { country: "Nigeria", population: 211400708 },
    { country: "Bangladesh", population: 166303498 },
    { country: "Russia", population: 145912025 },
    { country: "Mexico", population: 130262216 }
  ];

  // Language data
  const languageData = [
    { language: "English", speakers: "91" },
    { language: "French", speakers: "45" },
    { language: "Arabic", speakers: "25" },
    { language: "Spanish", speakers: "24" },
    { language: "Portuguese", speakers: "9" },
    { language: "Russian", speakers: "9" },
    { language: "Dutch", speakers: "8" },
    { language: "German", speakers: "7" },
    { language: "Chinese", speakers: "5" },
    { language: "Serbian", speakers: "4" }
  ];

  // Create population chart
  function createPopulationChart() {
    const chartContainer = document.getElementById('chart-container');
    let title = document.getElementById('title');
    title.textContent = 'Top 10 quốc gia có dân số đông nhất thế giới';
    chartContainer.innerHTML = '';

    populationData.forEach(data => {
      let divItem = document.createElement('div');
      divItem.classList.add('div-item');

      let nameCountry = document.createElement('div');
      nameCountry.classList.add('country-data');
      nameCountry.textContent = `${data.country}`;
      divItem.appendChild(nameCountry);

      let bar = document.createElement('div');
      bar.classList.add('bar');
      bar.style.width = `${(data.population /
populationData[0].population) * 100}%`;
      divItem.appendChild(bar);
    });
  }

```

```

        let population = document.createElement('div');
        bar.classList.add('bar');
        population.textContent = `${data.population}`;
        divItem.appendChild(population);

        chartContainer.appendChild(divItem)
    });
}

// Create language chart
function createLanguageChart() {
    const chartContainer = document.getElementById('chart-container');
    let title = document.getElementById('title');
    title.textContent = 'Top 10 ngôn ngữ được nói nhiều nhất trên thế giới';
    chartContainer.innerHTML = '';

    languageData.forEach(data => {
        let divItem = document.createElement('div');
        divItem.classList.add('div-item');

        let nameCountry = document.createElement('div');
        nameCountry.classList.add('country-data');
        nameCountry.textContent = `${data.language}`;
        divItem.appendChild(nameCountry);

        let bar = document.createElement('div');
        bar.classList.add('bar');
        bar.style.width = `${(parseFloat(data.speakers) /
parseFloat(languageData[0].speakers)) * 100}%`;
        divItem.appendChild(bar);

        let speakers = document.createElement('div');
        bar.classList.add('bar');
        speakers.textContent = `${data.speakers}`;
        divItem.appendChild(speakers);

        chartContainer.appendChild(divItem);
    });
}

```

```
// Handle population button click
const populationButton = document.getElementById('population-button');
populationButton.addEventListener('click', () => {
    createPopulationChart();
});

// Handle language button click
const languageButton = document.getElementById('language-button');
languageButton.addEventListener('click', () => {
    createLanguageChart();
});
```