Front End Technologies CSS - Day 4

Agenda

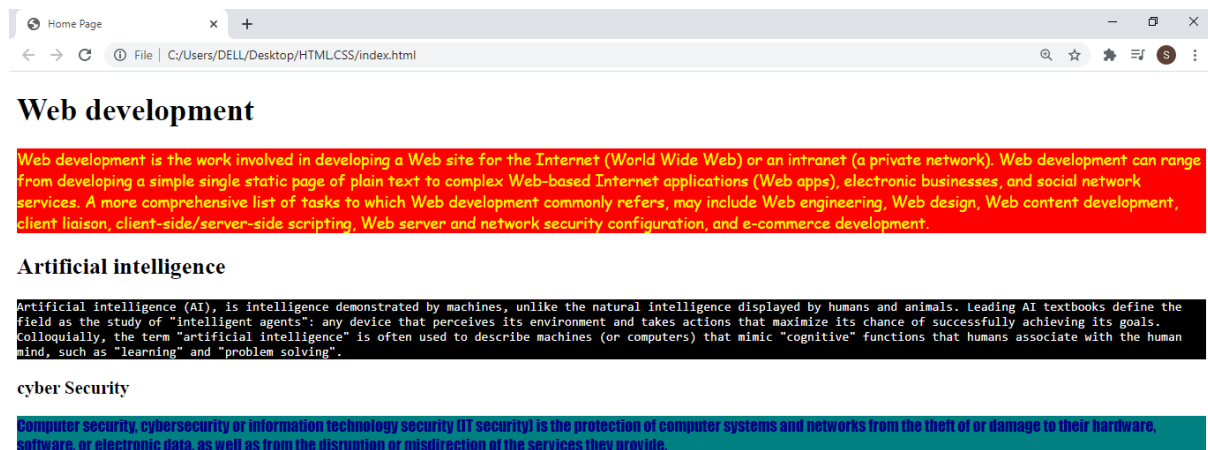- **CSS Selectors Continued**
- **<div> and <span> tag**

We have understood element selector, class selector and id selector, now let's see, can a html element belong to multiple classes.

Example:

```html
<!DOCTYPE html>
<html>
<head>
    <title>Home Page</title>
    <style type="text/css">
        .bg1{
            background-color: red;
        }
        .bg2{
            background-color: black;
        }
        .bg3{
            background-color: teal;
        }
        .font1{
            font-family: cursive;
            color: yellow;
        }
        .font2{
            font-family: monospace;
            color: white;
        }
        .font3{
            font-family: fantasy;
            color: navy;
        }
    </style>
</head>
<body>
    <h1>Web development</h1>
    <p class="bg1 font1">Web development is the work involved in developing a Web site for the Internet (World Wide Web) or an intranet (a private network). Web development can range from developing a simple single static page of plain text to complex Web-based Internet applications (Web apps), electronic businesses, and social network services. A more comprehensive list of tasks to which Web development commonly refers, may include Web engineering, Web design, Web content development, client liaison, client-side/server-side scripting, Web server and network security configuration, and e-commerce development.</p>
    <h2>Artificial intelligence</h2>
    <p class="bg2 font2">Artificial intelligence (AI), is intelligence demonstrated by machines, unlike the natural intelligence displayed by humans and animals. Leading AI textbooks define the field as the study of "intelligent agents": any device that perceives its environment and takes actions that maximize its chance of successfully achieving its goals. Colloquially, the term "artificial intelligence" is often used to describe machines (or computers) that mimic "cognitive" functions that humans associate with the human mind, such as "learning" and "problem solving".</p>
    <h3>cyber Security</h3>
    <p class="bg3 font3">Computer security, cybersecurity or information technology security (IT security) is the protection of computer systems and networks from the theft of or damage to their hardware, software, or electronic data, as well as from the disruption or misdirection of the services they provide.</p>
</body>
</html>
```

Output:

As we can clearly see from the above output, a html element can belong to multiple classes with space separated. In the above example <p1> tag belongs to bg1 and font1 classes, <p2> tag belongs to bg2 and font2 classes and <p3> tag belongs to bg3 and font3 classes.

Example: Combining element selector with class selector

```html
<!DOCTYPE html>
<html>
<head>
    <title>Home Page</title>
    <style type="text/css">
        .bg1{
            background-color: red;
        }
        .bg2{
            background-color: black;
        }
        .bg3{
            background-color: teal;
        }
        .font1{
            font-family: cursive;
            color: yellow;
        }
        .font2{
            font-family: monospace;
            color: white;
        }
        .font3{
            font-family: fantasy;
            color: navy;
        }
        h1.web{
            background-color: red;
            color: yellow;
        }
    </style>
</head>
<body>
    <h1 class="web">Web development</h1>
    <p class="bg1 font1">Web development is the work involved in developing a Web site for the Internet (World Wide Web) or an intranet (a
    private network). Web development can range from developing a simple single static page of plain text to complex Web-based Internet
    applications (Web apps), electronic businesses, and social network services. A more comprehensive list of tasks to which Web
    development commonly refers, may include Web engineering, Web design, Web content development, client liaison, client-side/server-side
    scripting, Web server and network security configuration, and e-commerce development.</p>
    <h2>Artificial intelligence</h2>
    <p class="bg2 font2">Artificial intelligence (AI), is intelligence demonstrated by machines, unlike the natural intelligence displayed
    by humans and animals. Leading AI textbooks define the field as the study of "intelligent agents": any device that perceives its
    environment and takes actions that maximize its chance of successfully achieving its goals. Colloquially, the term "artificial
    intelligence" is often used to describe machines (or computers) that mimic "cognitive" functions that humans associate with the human
    mind, such as "learning" and "problem solving".</p>
    <h3>cyber Security</h3>
    <p class="bg3 font3">Computer security, cybersecurity or information technology security (IT security) is the protection of computer
    systems and networks from the theft of or damage to their hardware, software, or electronic data, as well as from the disruption or
    misdirection of the services they provide.</p>
</body>
</html>
```
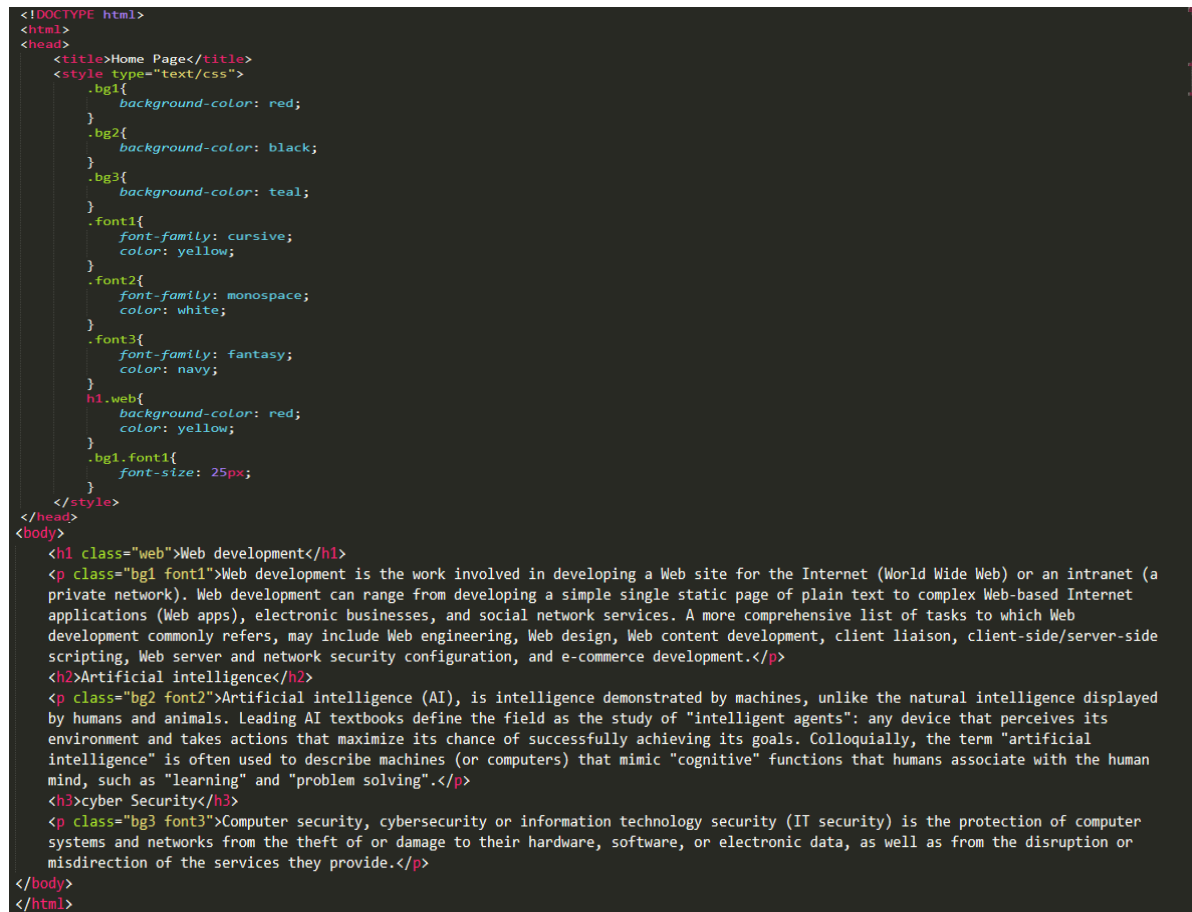
Output:

As we can see from the above output styling of web page is done based on element and class i.e using element selector and class selector. In the above example h1 element is selected which belongs to the class web and styling of that particular element is done.

Example: Combining class selector with another class selector

```html
<!DOCTYPE html>
<html>
<head>
    <title>Home Page</title>
    <style type="text/css">
        .bg1{
            background-color: red;
        }
        .bg2{
            background-color: black;
        }
        .bg3{
            background-color: teal;
        }
        .font1{
            font-family: cursive;
            color: yellow;
        }
        .font2{
            font-family: monospace;
            color: white;
        }
        .font3{
            font-family: fantasy;
            color: navy;
        }
        h1.web{
            background-color: red;
            color: yellow;
        }
        .bg1.font1{
            font-size: 25px;
        }
    </style>
</head>
<body>
    <h1 class="web">Web development</h1>
    <p class="bg1 font1">Web development is the work involved in developing a Web site for the Internet (World Wide Web) or an intranet (a
    private network). Web development can range from developing a simple single static page of plain text to complex Web-based Internet
    applications (Web apps), electronic businesses, and social network services. A more comprehensive list of tasks to which Web
    development commonly refers, may include Web engineering, Web design, Web content development, client liaison, client-side/server-side
    scripting, Web server and network security configuration, and e-commerce development.</p>
    <h2>Artificial intelligence</h2>
    <p class="bg2 font2">Artificial intelligence (AI), is intelligence demonstrated by machines, unlike the natural intelligence displayed
    by humans and animals. Leading AI textbooks define the field as the study of "intelligent agents": any device that perceives its
    environment and takes actions that maximize its chance of successfully achieving its goals. Colloquially, the term "artificial
    intelligence" is often used to describe machines (or computers) that mimic "cognitive" functions that humans associate with the human
    mind, such as "learning" and "problem solving".</p>
    <h3>cyber Security</h3>
    <p class="bg3 font3">Computer security, cybersecurity or information technology security (IT security) is the protection of computer
    systems and networks from the theft of or damage to their hardware, software, or electronic data, as well as from the disruption or
    misdirection of the services they provide.</p>
</body>
</html>
```

Output:

In the above example, we have combined bg1 class with font1 class so html element that belongs to bg1 class and font1 class will be styled. If you can notice, first p tag is the only tag that belongs to both the classes and hence p tag gets styled.

Example: Combining id and class selector

Output:

In the above example, clearly we can see styling is applied to that html element which belongs to **header2 id selector** and **ai class selector.**
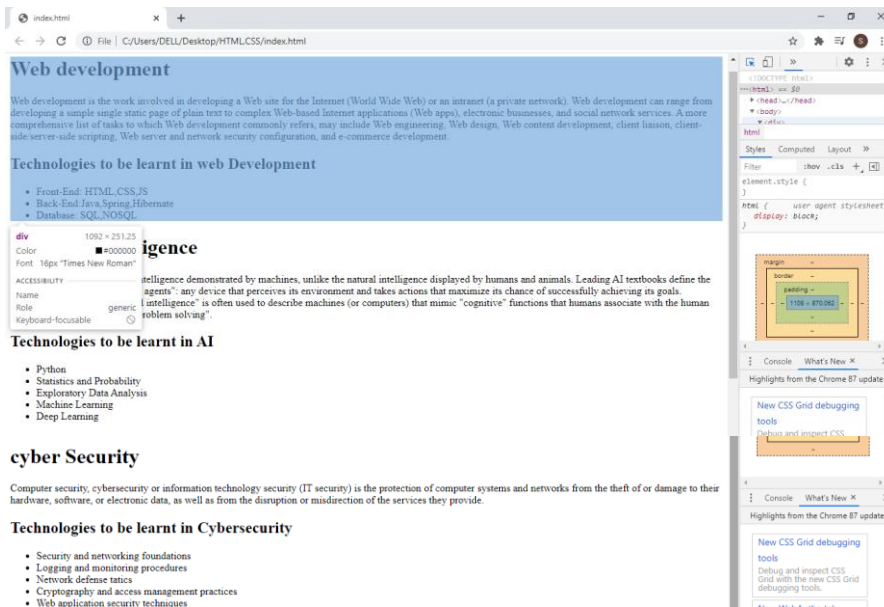
<div> and <span> tag:

<div> tag is a block type element and <span> tag is inline type element. The <div> tag allows you to group a set of elements together in one **block-level** box. The **<span>** element acts like an **inline** equivalent of the <div> element.

Index.html

Output:

As we can see in the output, we have grouped information related to web development has one element, AI has one element and cyber Security has another element using <div> tag. Now, using this <div> tag you can style each division differently as shown below.

Index.html

```html
<!DOCTYPE html>
<html>
<head>
    <title></title>
    <style type="text/css">
        .web{
            background-color: red;
            font-family: cursive;
            color: yellow;
        }
        .ai{
            background-color: black;
            font-family: monospace;
            color: grey;
        }
        .cs{
            background-color: teal;
            font-family: fantasy;
            color: navy;
        }
    </style>
</head>
<body>
    <div class="web">
        <h1 >Web development</h1>
        <p >Web development is the work involved in developing a Web site for the Internet (World Wide Web) or an intranet (a private network). Web development
        can range from developing a simple single static page of plain text to complex Web-based Internet applications (Web apps), electronic businesses, and
        social network services. A more comprehensive list of tasks to which Web development commonly refers, may include Web engineering, Web design, Web
        content development, client liaison, client-side/server-side scripting, Web server and network security configuration, and e-commerce development.</p>
        <h2>Technologies to be learnt in web Development</h2>
        <ul>
            <li>Front-End: HTML,CSS,JS</li>
            <li>Back-End:Java,Spring,Hibernate</li>
            <li>Database: SQL,NOSQL</li>
        </ul>
    </div>
```
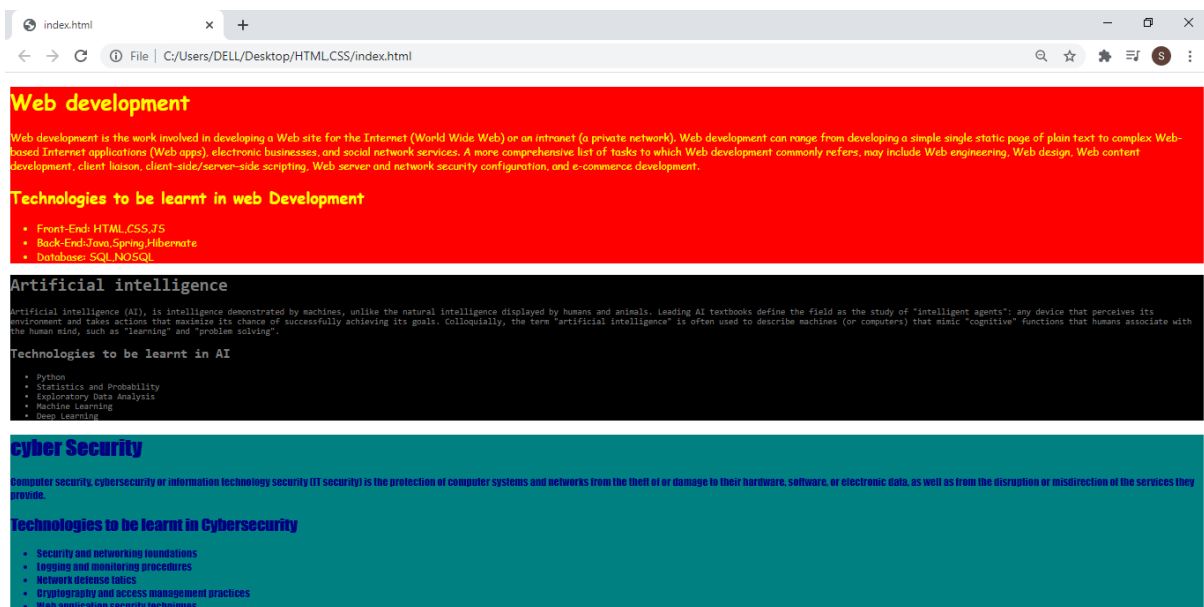
```
<div class="ai">
    <h1 >Artificial intelligence</h1>
    <p >Artificial intelligence (AI), is intelligence demonstrated by machines, unlike the natural intelligence displayed by humans and animals. Leading AI
    textbooks define the field as the study of "intelligent agents": any device that perceives its environment and takes actions that maximize its chance
    of successfully achieving its goals. Colloquially, the term "artificial intelligence" is often used to describe machines (or computers) that mimic
    "cognitive" functions that humans associate with the human mind, such as "learning" and "problem solving".</p>
    <h2>Technologies to be learnt in AI</h2>
    <ul>
        <li>Python</li>
        <li>Statistics and Probability</li>
        <li>Exploratory Data Analysis</li>
        <li>Machine Learning</li>
        <li>Deep Learning</li>
    </ul>
</div>
<div class="cs">
    <h1>cyber Security</h1>
    <p>Computer security, cybersecurity or information technology security (IT security) is the protection of computer systems and networks from the theft
    of or damage to their hardware, software, or electronic data, as well as from the disruption or misdirection of the services they provide.</p>
    <h2>Technologies to be learnt in Cybersecurity</h2>
    <ul>
        <li>Security and networking foundations</li>
        <li>Logging and monitoring procedures</li>
        <li>Network defense tatics</li>
        <li>Cryptography and access management practices</li>
        <li>Web application security techniques</li>
    </ul>
</div>
</body>
</html>
```
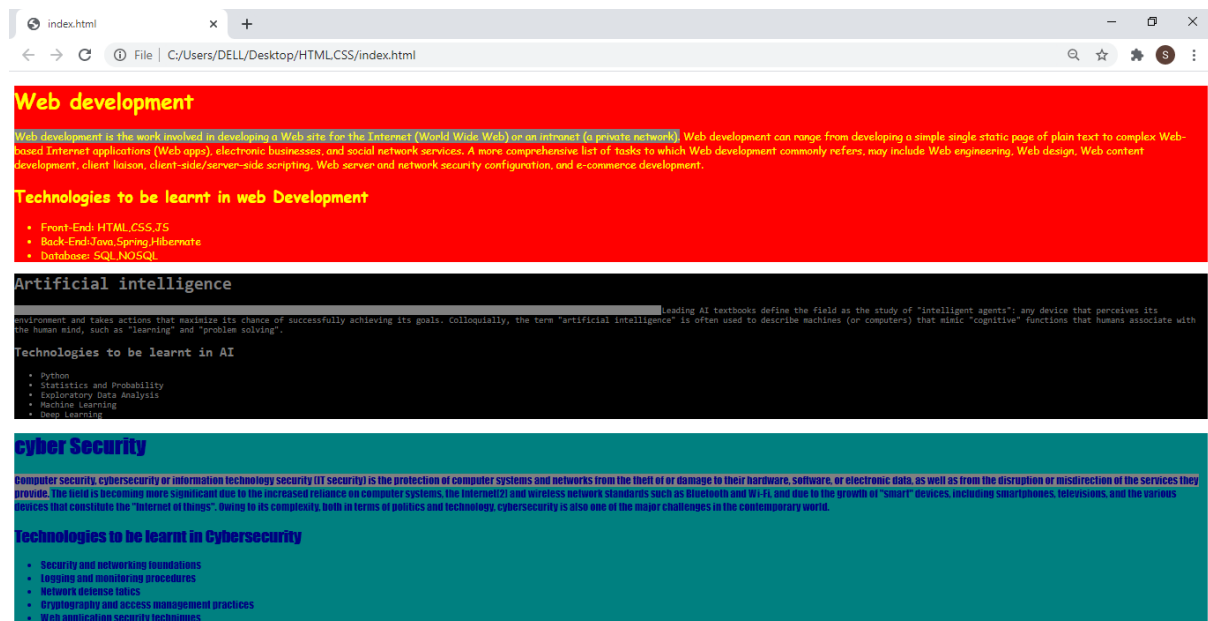
Output:

Now, if we want to style every first line of the paragraph without the line break in the above example then first you have to group those elements then apply styling to those elements. We can do this using the **<span> tag** as shown below example**.**

Index.html

```html
<!DOCTYPE html>
<html>
<head>
    <title></title>
    <style type="text/css">
        .web{
            background-color: red;
            font-family: cursive;
            color: yellow;
        }
        .ai{
            background-color: black;
            font-family: monospace;
            color: grey;
        }
        .cs{
            background-color: teal;
            font-family: fantasy;
            color: navy;
        }
        .firstline{
            background-color: grey;
        }
    </style>
</head>
<body>
    <div class="web">
        <h1 >Web development</h1>
        <p> <span class="firstline">Web development is the work involved in developing a Web site for the Internet (World Wide Web) or an intranet (a private
        network).</span> Web development can range from developing a simple single static page of plain text to complex Web-based Internet applications (Web
        apps), electronic businesses, and social network services. A more comprehensive list of tasks to which Web development commonly refers, may include Web
        engineering, Web design, Web content development, client liaison, client-side/server-side scripting, Web server and network security configuration, and
        e-commerce development.</p>
        <h2>Technologies to be learnt in web Development</h2>
        <ul>
            <li>Front-End: HTML,CSS,JS</li>
            <li>Back-End:Java,Spring,Hibernate</li>
            <li>Database: SQL,NOSQL</li>
        </ul>
    </div>
    <div class="ai">
        <h1 >Artificial intelligence</h1>
        <p ><span class="firstline">Artificial intelligence (AI), is intelligence demonstrated by machines, unlike the natural intelligence displayed by humans
        and animals. </span> Leading AI textbooks define the field as the study of "intelligent agents": any device that perceives its environment and takes
        actions that maximize its chance of successfully achieving its goals. Colloquially, the term "artificial intelligence" is often used to describe
        machines (or computers) that mimic "cognitive" functions that humans associate with the human mind, such as "learning" and "problem solving".</p>
        <h2>Technologies to be learnt in AI</h2>
        <ul>
            <li>Python</li>
            <li>Statistics and Probability</li>
            <li>Exploratory Data Analysis</li>
            <li>Machine Learning</li>
            <li>Deep Learning</li>
        </ul>
    </div>
    <div class="cs">
        <h1>cyber Security</h1>
        <p><span class="firstline">Computer security, cybersecurity or information technology security (IT security) is the protection of computer systems and
        networks from the theft of or damage to their hardware, software, or electronic data, as well as from the disruption or misdirection of the services
        they provide.</span> The field is becoming more significant due to the increased reliance on computer systems, the Internet[2] and wireless network
        standards such as Bluetooth and Wi-Fi, and due to the growth of "smart" devices, including smartphones, televisions, and the various devices that
        constitute the "Internet of things". Owing to its complexity, both in terms of politics and technology, cybersecurity is also one of the major
        challenges in the contemporary world.</p>
        <h2>Technologies to be learnt in Cybersecurity</h2>
        <ul>
            <li>Security and networking foundations</li>
            <li>Logging and monitoring procedures</li>
            <li>Network defense tatics</li>
            <li>Cryptography and access management practices</li>
            <li>Web application security techniques</li>
        </ul>
    </div>
</body>
</html>
```

Output:

Thus, using the **<span> tag** we have styled the first line of every paragraph without the line break.