JS 9 Theme Selection

So far, we style each individual tag. This is good because each tag has its own unique style. However, what if there are situations where a group of tags should have smiliar styles. This leads us to grouping. In a real world situation, each group is a separate profile. We can then choose a profile as a theme.

We continue with events and action by connecting HTML with JS using "onclick". Next, we style a group to create a theme and then choose the theme using mouse click.

    1. div   2. multiple profile   3. repeating background image   4. mouse click

NOTE: If we open something, we MUST close it. The slash (/) is used to close a tag.

```
<p  id = "p2"  > Hi        </p>
<h2 id = "subT"> Sub Item </h2>
```

===

0. What is \<div> \</div>?

Div stands for "**division**". Not the math operation but the dividing of a website into sections. Another way to explain it is that division is about grouping.

In JS and CSS, we group together lines of code using the curly braces { }. HTML is different.

In HTML, we group together elements by using the **\<div> \</div> tag. EVERYTHING** in between the **\<div> \</div>** belong together to the same group. This means that if one color is applied to the group, **ALL** elements within the entire group **ALSO** get that color.

By grouping HTML elements together, we can reuse styles.

1. Write HTML code in between <body> </body>. Write EVERYTHING below.

```
<div
id = "themeCon"
>
        <p id="p1">Select A Theme </p>


        <button
        id      = "thm1"
        onclick = "thm1Sel()"
        >
        Summer
        </button>


        <button
        id      = "thm2"
        onclick = "thm2Sel()"
        >
        Winter
        </button>

        <p id = "ePTag">
        The paragraph above was changed by a script.
        </p>

</div>
```


Explanation of HTML Code

We have two paragraph tags and they have the id of "thm1" and "thm2". An id is important because it allows CSS and JS to find and link up with HTML elements, like both paragraph tags.

In a theme page, we are able to select a theme by clicking on a button. The button "**click**" is our event. Specifically, our event is **onclick**.

When we click on a button, like the button "Summer", we generate an event and we need to link that event to an action. When an event occurs, we can't sit still. An event is important and so we have to link that event with an action. For the button **"Summer"**, we link our "**onclick**" to the JS function **thm1Sel().**

Notice that if we click on a different button, like the button "Winter", a **different** JS function is called. In this case, we link a "**onclick**" of "Winter" to the JS function **thm2Sel()**.

So now you guys get the idea of how themes are basically just profiles that are activated by an event. Next up, we define the action (ie. we define the JS function for **thm1Sel()** and **thm2Sel()**);

2. Write JS code in between <script> </script>. Write the code in orange and dark blue.

```
function thm1Sel()
{
      var dObj = document.getElementById("themeCon");

      dObj.style.backgroundColor = "#1E90FF";
      dObj.style.border = "2px solid #F0E68C";
      dObj.style.backgroundImage = "url('https://vuongducnguyen.com/images/bFire.png')";

      dObj.style.backgroundPosition = "top";

}
```
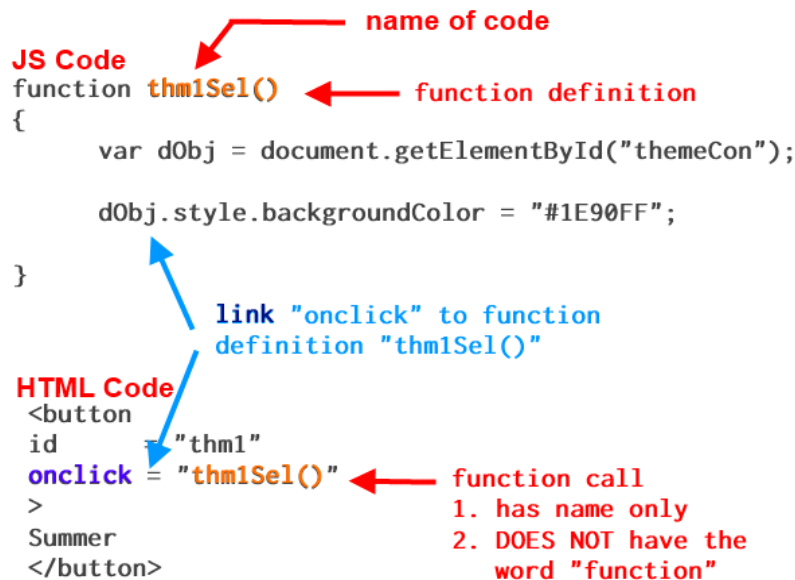
Explanation of JS Code

How do we reuse code? Look above and the code is colored dark blue.

Reuse of code is done by giving code a name. Everytime you see the word "function", this is a function definition. Function definition is the process of "giving code a name". The name of the code comes right after the word "function".

From above, we see that we gave the code the name of "thm1Sel()". Since we gave code a name, we can call the name over and over again to reuse the code. If the user clicks on the button "Summer" 10 times, then we call thm1Sel() 10 times.

3. But, we have 2 buttons ... Write JS code in between <script> </script>. Write the code in sky blue.

What about the second button, which is "Winter"? To make this a true theme selection app, we need to account for what happens if the user clicks on "Winter". Underneath the JS code that you just wrote, add this onto it.

```
function thm2Sel()
{
    var dObj = document.getElementById("themeCon");

    dObj.style.backgroundColor = "#a0a0a0";
    dObj.style.border = "2px solid #1E90FF";

  dObj.style.backgroundImage = "url('https://vuongducnguyen.com/images/fWinter.png')";

    dObj.style.backgroundPosition = "center";

}
```

Continue to the next page

4. Check Your Code. In between <script> </script>, it should look like the code below.
Click on the green "**Run**" button and click on "**Summer**" or "**Winter**" and this is how you do
"Theme Selection"

```
<script>
function thm1Sel()
{
  var dObj = document.getElementById("themeCon");

  dObj.style.backgroundColor = "#1E90FF";
  dObj.style.border = "2px solid #F0E68C";
  dObj.style.backgroundImage = "url('https://vuongducnguyen.com/images/bFire.png')";

  dObj.style.backgroundPosition = "top";

}


function thm2Sel()
{
  var dObj = document.getElementById("themeCon");

  dObj.style.backgroundColor = "#a0a0a0";
  dObj.style.border = "2px solid #1E90FF";
  dObj.style.backgroundImage = "url('https://vuongducnguyen.com/images/fWinter.png')";

  dObj.style.backgroundPosition = "center";

}

</script>
```

Explanation

What is the difference between **.innerHTML** and **.style**? Look below.
1. If we want to **change the data of the website**, then we use **.innerHTML**
2. If we want to **change how the website looks**, then we use **.style**

```
document.getElementById("themeCon").innerHTML = "my theme";

document.getElementById("themeCon").style.color = "#00ffbb";
```

From the code above, we are changing how the website looks and this is how themes are
created. We use `document.getElementById()` to link JS with HTML and then we change
the style.

5. Update Your JS Code And Add The Green Code - take your time. When done, click on the green "Run" button for your first Theme Selection App. This is how Google and all other websites implement "Themes" for Gmail and etc.

```javascript
function thm1Sel()
{
  var dObj = document.getElementById("themeCon");

  dObj.style.backgroundColor = "#1E90FF";
  dObj.style.border = "2px solid #F0E68C";
  dObj.style.backgroundImage = "url('https://vuongducnguyen.com/images/bFire.png')";

  dObj.style.backgroundPosition = "top";


  var bObj = document.getElementById("bTag");

  bObj.style.backgroundColor = "#F4A460";

  bObj.style.backgroundImage = "url('https://vuongducnguyen.com/images/summer.png')";

  bObj.style.backgroundRepeat = "repeat-y";


}

function thm2Sel()
{
  var dObj = document.getElementById("themeCon");

  dObj.style.backgroundColor = "#a0a0a0";
  dObj.style.border = "2px solid #1E90FF";
  dObj.style.backgroundImage = "url('https://vuongducnguyen.com/images/fWinter.png')";

  dObj.style.backgroundPosition = "center";


  var bObj = document.getElementById("bTag");

  bObj.style.backgroundColor = "#E6E6FA";

  bObj.style.backgroundImage = "url('https://vuongducnguyen.com/images/wLand.png')";

  bObj.style.backgroundRepeat = "repeat";


}
```

HTML Challenge

What about Fall and Spring, they are important too right?

1. update your HTML code to have 2 more buttons, one for "Fall" and one for "Spring"

JS Challenge 1 8NB.

Write two more function definitions

1. attach an "**onclick**" event to the button that says "**Fall**". When this button is clicked on, a JS function called **thm3Sel**() is called

2. attach an "**onclick**" event to the button that says "**Spring**". When this button is clicked on, a function called **thm4Sel**() is called

For the backgroundImage, the following links can be used:

Fall & Spring
https://vuongducnguyen.com/images/autumn.jpg

https://vuongducnguyen.com/images/desertM.jpg

https://vuongducnguyen.com/images/ricePaddy.jpg

https://vuongducnguyen.com/images/canalVenice.jpg

https://vuongducnguyen.com/images/rainDrops.jpg

Winter
https://vuongducnguyen.com/images/ziemaRoad.jpg

https://vuongducnguyen.com/images/winter2.jpg

Summer

https://vuongducnguyen.com/images/mHouse.jpg

https://vuongducnguyen.com/images/venice.jpg

https://vuongducnguyen.com/images/rainDrops.jpg

https://vuongducnguyen.com/images/lakeH.jpg

https://vuongducnguyen.com/images/water.jpg

JS Challenge 2

1. Write JS code to link up with the tag with id **"mTag"**
2. make the following changes based on which button was clicked on.

if "Summer" button was clicked on, then change
1. the **.innerHTML** to "**bonfire**"
2. color to "**#ffd700**"

If "Winter" button was clicked on, then change
1. the **.innerHTML** to "**cooold**"
2. color to "**#ffffff**"