My Web Page: **aptokash.github.io/PB**   File Sharing: **file.io**

HTML TAGS

- We create a web page by editing a text file and saving it as filename.**html**
    - (HTML stands for hypertext markup language)
    - Once you create an html file, you can view it in a browser

- Web (html) **commands** are formatted like this *<command>*
  There will almost always be a start and end command: *<command>   </command>*
  We start the file with these commands to tell the browser it's a web page
    ```
    <!DOCTYPE html>
    <html lang="en">
    ```

- Our file will have some major sections
    ```
    <html>
    <head>

    </head>

    <body>

    </body>
                        this is where we put the main content
    <script>
                        this is where we put our JavaScript!
    </script>
    </html>
    ```

- When writing our file, it's good to indent and use blank lines

- Some commands we learned:
    - `<h1> <h2> <h3> <h4> <h5>`   creates different sized headers
    - `<title> text </title>`   puts text in browser tab
    - `<p>`   starts a paragraph
    - `<img src="https://web address" height=100px>` displays a picture
      `<img src="filename.jpg" height=100px>`   *must be in same folder*
    - `<hr>`   draws a horizontal line
    - `<!--    some comments      -->`   hidden comments

- Use blank lines to separate areas of code
- Use indents to show how code lines up

JAVASCRIPT FUNCTIONS

- JavaScript Code
    - We write our JavaScript functions in the `<script> </script>` section
    - Commands always end with a semicolon: ";"
    - To create variables: `var` name = value;
    - Functions start with a "{" and end with a "}"
    - Use **//** to comment out lines (these are not run

- To create code that runs *when we first load the page*
    - `<body onload="`**`test`**`()">`   this runs a function when we load a page
    - Here's the function **test** we wrote – which just displays a message
    Look at how we use the { and } to show the start and end of the function!
    ```
    <script>
         function test(){
              alert("it does");
         }
    </script>
    ```

- To create code that runs *when we click a button*
    - Create the button in HTML
    ```
         <button onclick="function()"> Click me </button>
    ```
    - Then create the JavaScript function named *function()*

- Most of our code will be in *functions* in the <script> </script> section.
  But we can create variables that are used by all functions.
  Like this:
    ```
    <script>
         var randomNumber = Math.floor(Math.random() * 100) + 1;
         alert( randomNumber);
    ```
  This lets us use *randomNumber* in our functions

- **To get User Input**
    - We can get input from people by using the <input> tag
    ```
         <p>Enter your name <input type='text' id='name'>
    ```
    - JS can read it by looking at the **id**
    ```
         var name = document.getElementById("name");
    ```

- **To set a Random Number from 1 to _100_**
    - `var randomNumber = Math.floor(Math.random() * `**`100`**`) + 1;`

- **To change what's displayed**
  - In HTML we identify a paragraph with an **id**
    ```
    <p id='message'>
    ```

  - We change it with JS!
    ```
    var message = document.getElementById("message");
    message.value = "This is new text";
    message.innerHTML = "<b> This is bold text </b>";
    ```

- **To use image or sound files**
  - The files should be in the same folder as our code
    ```
    src="filename.jpg"
    ```
  - We can also use a file on the internet
    ```
    src="https://aptokash.github.io/Home/ZHeadShot0.jpg"
    ```

- **To change a picture**
  - In HTML we identify an image with an **id**
    ```
    <img src="face ok.jpg" id="name">
    ```

  - We change it with JS!
    ```
    var ourvariable    = document.getElementById("name");
    ourvariable.src = "face happy.jpg";
    ```

- **To play a sound file!**
  - Note: sound will only work in a function called by a button!
  - ```
    var audio = new Audio('filename.filetype');
     audio.loop = false;
     audio.play();
    ```

CSS – Styles!

- **To format how things are displayed, we use CSS** and put them in a section of code

  ```
  <style>

  <style>
  ```
- We can format different HTML objects
  - To format a tag :   **h1** { color: red; fontsize 10px;}

                                  p { color: blue; }
  - To format an id: **#div1** { color: green;}
- Using ID's
  - We specify an id to an HTML tag: <p **id="*message*"**}
  - We add css for the tag: **#*message*** { color: red;}

Function Variables

- We put all our JS code in the <script> section – we also put functions in there

  ```
  <script>
          function dothis() {
          }
          function dothat()
          }
  </script>
  ```
- We can but VAR statements in the functionIf we have variables that are shared among functions – these are called *global* variables and these we put <u>outside of the functions</u>

  ```
  <script>
          var name = " Presley";
          function dothis() {
          }
          function dothat()
          }
   </script>
  ```

Animation Code

- https://www.w3schools.com/howto/howto_js_animate.asp

This week

- I put the ANIMATION file on aptokash.github.io/PB
- Work: add more buttons to change more formatting of the block using JS and CSS