**NM2207 Week 9 Intermediate Submission**

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Project proposal:

* Formula 1 2023 Season Predictions!
* The project comprises two pages:
  + The first page is the introductory page, which presents the 2022 season recap through a line chart depicting the growth of points for every F1 Constructor (team) throughout the season.
  + The second page is the prediction page, which allows the users to put in predictions for Drivers’ Championship, Constructors’ Championship, the team they think will be a pleasant surprise, and Rookie of the Year. Once they submit the predictions, the page will reflect their choices, which the users can screenshot for keepsake purposes!

Data source: [2022 Abu Dhabi Grand Prix – FIA](https://www.fia.com/sites/default/files/decision-document/2022%20Abu%20Dhabi%20Grand%20Prix%20-%20Championship%20Points.pdf) (Page 4: Constructors’ Championship)

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| **Week** | **Concept** | **How I’ve used it** | **Line Number** | **Filename** |
| 2 – My first Website | HTML | Creating an HTML page | (whole document) | Index.html  Predictions.html |
| HTML tags | Using HTML tags to define what the content inside the tags will be, and dictate how such content will be presented | (whole document) | Index.html |
| (whole document) | Predictions.html |
| HTML div class & ID | Classifying div class & ID on the HTML tags to be used for:   * Defining styles in CSS based on div class & ID * Later concepts when class are used as reference to make changes to HTML from JavaScript | 14-16, 18-19, 32, 40 | Index.html |
| 14-16, 18-19, 25, 99 | Predictions.html |
| CSS | Creating a CSS page to define and standardize the style (look and feel) of the HTML pages | (whole file) | Appstyle.css |
| Linking CSS files to the HTML document | 5 | Index.html  Predictions.html |
| Forms | Using forms to obtain users’ predictions | 26-95 | Predictions.html |
| Drop-down (option values)  To choose the users’ predictions for Drivers’ Championship, Constructors’ Championship, the team they think will become a pleasant surprise, and Rookie of the Year. | 27-81 | Predictions.html |
| Text input  To input the user’s name, whereby its value will be used to generate a greeting through JavaScript | 83-86 | Predictions.html |
| Button  To submit the form, and as reference for JavaScript to execute certain functions when the button is being clicked. | 92-97 | Predictions.html |
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| 3 – My first JS Code | JavaScript document | Creating a Javascript document to perform functions and make changes to the HTML body | (whole file) | Main.js  Predictions.js |
| Linking JavaScript | Linking the JavaScript documents to respective HTML pages | 6 | Main.js  Predictions.js |
| Console.log() | Using console.log() to test whether values from the form have been retrieved correctly before more advanced commands are executed  For instance:  Console.log(driversChampion);  Tests whether the object “driversChampion” have correctly extracted the value for drivers’ champion from index.html | 18  44  100 | Predictions.js |
| Window.alert() | Shows an alert dialogue box when its corresponding function is executed  For instance:  window.alert(“Let’s go make some bold predictions!”)  Displays the message string inside “” when the function is executed | 100 | Main.js |
| 7 | Predictions.js |
| Window.open() | window.open(“predictions.html”);  Upon a user clicking the “clickButton” ID on index.html, the browser opens a new window, that is “predictions.html” | 101 | Main.js |
| Document.getElementById() | Used to refer to the specific “id” on index.html or predictions.html, to perform tasks such as:  . value = extract value  . innerHTML = show string/message on the html document  . onclick = performs a function whenever ID is clicked  (more detailed explanations below) | 96 | Main.js |
| 5,8  16-17, 19  42-43.45  70-71, 73  98-99, 101  113 | Predictions.js |
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| 4 – My first Function | Creating a function  Objects | Function buttonFunction()  A function that executes:   * “window.alert()” showing an alert box prompting the user to input their predictions, and * “window.open()” that opens predictions.html on a new tab where users can input their predictions | 99-102 | Main.js |
| Function recapPredictions()  A function that executes a lot of different things, including:   * A “window.alert()” greeting thanking the user for submitting their predictions, the user’s name extracted from their input in the form * For every prediction: extract predictions from the form on index.html and create a sentence (using strings) to recap the prediction * Show an image of the chosen value using the if/else/elseif statement | 3-110 | Predictions.js |
| Using var to define arrays that contain datasets  For instance:  var RedBull = [an array of RedBull’s points progression] | 2-13 | Main.js |
| Using var with document.getElementById(“id”) to refer to the ID in index.html  For instance:  var clickButton = document.getElementById(“clickButton”)  Using var to refer “clickButton” on main.js to an ID called “clickButton” on index.html | 96 | Main.js |
| Using var with document.getElementById(“id”).value to extract value from a user’s choice on its corresponding ID on index.html  For instance:  var driversChampion = document.getElementById("drivers").value;  sets driversChampion as the value of whatever a user chooses on the “drivers” ID of index.html | 5  16  42  70  98 | Predictions.js |
| Using var with document.getElementById(“Id)”.innerHTML to display a string of sentences on its corresponding “id” on index.html  For instance:  document.getElementById("greeting").innerHTML = "May your predictions come true, " + guestName + "!"  Displays the message string on the “greeting” ID of index.HTML | 8  17  43  71  99 | Predictions.js |
| Calling functions | Calling the function after they are being declared so that the function will be executed  For instance:  recapPredictions();  calls the “recapPredictions();” function | 114 | Predictions.js |
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| 5 – My first Event | .addEventListener | document.getElementById("recapButton").onclick = function()  Using add event listener that executes a function, “buttonFunction()”, whenever a user clicks on the “clickButton” ID on index.html | 96-97 | Main.js |
| .onclick | document.getElementById("recapButton").onclick = function() {  Using .onclick to perform the “recapPredictions()” function whenever a user clicks the “recapButton” ID on predictions.html | 113-115 | Predictions.js |
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| 6 – My first Loop | If else statement | After extracting values from the form, I use if, else if, and if to show an image of the user’s chosen option (from index.html) under each corresponding statement  For instance:  if (driversChampion == "Max Verstappen") {  driversChampionImage.setAttribute("src", "resources/MaxVerstappen.jpg");  On predictions.html, if a user chooses the “Max Verstappen” option for their Drivers’ Champion prediction, JavaScript will look for driversChampion == “Max Verstappen” and show an image of Max Verstappen on its respective ID | 20-38  46-66  102-108 | Predictions.js |
| 7 – My first Chart | Add chart JS | Linking chart JS to index.html | 7 | Index.html |
| Canvas ID | Adding canvas ID on index.html to provide a “container” for the line chart to appear on the HTML page   * Adding the width and height of the chart in the same tag as canvas ID | 35 | Index.html |
| Preparing data | Adding data as a set of arrays in the JavaScript file | 2-13 | Main.js |
| Chart | Using line chart to present the growth of points for each F1 team throughout the 2022 season | 2-94 | Main.js |
| Type: line | Defining chart type as line chart | 16 | Main.js |
| Options | Configuring the title text, legend display, and legend position | 17-25 | Main.js |
| Data | Creating labels for each dataset, adding datasets to each label, and choosing its border colors | 27-94 | Main.js |
| 8 – My first Dataset | Arrays | Adding datasets as arrays in JavaScript | 2-13 | Main.js |