**Web Application Development Project Submission 2022**

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Home page/index page/start page (eg., page user should open first): Project1.html

**Project Requirements Implementation**

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| **ITEM 1** | **Reference** |
| *Allow the customer to enter their login details:* | I created a form tag and input tags with those to all a user to input. |
| *Login details validated (via a login screen) before receiving a summary of the order:* | I created a function called 'validation' and wrote it into onkeydown attribute in order for the function to perform when the user types into the inputs. |
| *Username:* |  |
| *Password:* |  |
| *Brief description of how this was implemented:* | The required keyword caused an alert to the user if an input field was empty. In the function there was an 'else if' statement saying that if an input was empty it would alert the user and also put a focus on the input box. |

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| **ITEM 2** | **Reference** |
| *Perform form validation through JavaScript or HTML to ensure that text fields are not empty, and a valid email address is entered* | Project1.html |
| *Brief description of how this was implemented:* | I created a variable 'mailformat' inside a function which contained all the allowed character. An if else statement with alerts was also contained in the function. |

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| **ITEM 3** | **Reference** |
| Access and change HTML on the web page through the DOM; |  |
| *Brief description of how this was implemented:* | I used the .innerHTML() method on the document.getElementByID() method to change the html inside the button tags. I also used .getElementById() in a created function to access the value of the text the user was entering, for example, the email. |

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| **ITEM 4** | **Reference** |
| Access and change styling through the DOM; | Project1.html |
| *Brief description of how this was implemented:* | I used the document.getElementById() and passed in an id I created inside the button tag. This changed the coloring of the text on clicking by using the .style() method, and setting this equal to a color. |

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| **ITEM 5** | **Reference** |
| Demonstrate the use of events; | contact.html |
| *Brief description of how this was implemented:* | I used the 'onmouseover' method inside a div tag, to act on the elements contained within. I created a function to access and change the html and style using the .getElementByClassName() method in the function. |

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| **ITEM 6** | **Reference** |
| Contain two D3 data visualisations (e.g., Bar Chart) of your choosing  a. One from a CSV file  b. One from an array | services.html  svg2.html |
| *Brief description of how this was implemented:* | a.I searched data suitable to make a scatter plot, which I saved to a .csv format. I used d3.csv("nameoffile").then(function(data) {console.log(data) which allows the user to import the data from the file. I then created a canvas with an svg contained within it, to placed my axes and finally some circles to represent the data points.  b.I created by own array using the var equal to keyword with numbers inside square brackets. I created a div element with an id and then inside script tags I created an svg (scalable vector graphics) to place some 2d graphics inside, which was rectangles to form a bar chart. |

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| **ITEM 7** | **Reference** |
| Both visualisations should allow the user to specify display settings, including an option to change colour, display size and animations | services.hml  svg2.html |
| *Brief description of how this was implemented:* | I used select tags with an id inside the first one. I then created option tags which would display the range of values a user could choose from. I created a button tag and specified that by clicking the program would run a function I had created, which was a function to display a scatter plot. This function utilized scale methods to create axes and also circles to show the data points. |

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| **ITEM 8** | **Reference** |
| Have a minimum of 3 linked pages; | Project1.html |
| *Brief description of how this was implemented:* | href="filename" inside list tags and 'a' tags. The a tag make a link clickable by a user, and takes them to the filename specified. |

Additional information: