

joshford 1701602

by Joshua Ford

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Introduction to Scripting

Assignment

1701602

Introduction to scripting

Assignment 1

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1. Introduction

This assignment will show how JavaScript can be used on a website and the different things it can do. The different things include adding alerts when buttons are pressed, pressing buttons to change the layout of a website and also making objects move around the screen on click. The task was to allow user interaction and the following features will allow the user to press buttons. The website would be on a hobby and should include three JavaScript components of choice.

2. JavaScript components produced – screenshots with annotations

```
<script>
var points;

function question1() {
  answer1 = document.getElementById("Bale");
  answer2 = document.getElementById("Ramsey");
  answer3 = document.getElementById("Vokes");

  if (answer1.checked) {
    alert("correct it was bale!");
    points = points + 1;
  }

  else {
    alert("incorrect! it was Bale")
  }
}
```

This screenshot shows that the first question works by, if the first option is checked, answer one is checked through the if statement which works out if answer 1 is checked, display 'correct, it was Bale'. If it was any other answer it will display 'incorrect'.

```
<form action="javascript:question1()">
  Who is the only current welsh football player to play in spain?
  <br>
  <input type="checkbox" id="Bale">Gareth Bale<span></span>
  <input type="checkbox" id="Ramsey">Aaron Ramsey<span></span>
  <input type="checkbox" id="Vokes">Sam Vokes<span></span><br></br>
  <input type="submit" value="Submit">
</form>
```

The next screenshot is how the form works. It shows the form 'javascript:question1()', it displays the question on the website. It will show a checkbox so that the user can check a box in which answer they want to choose. The ID is so that it can be used in the script so that each answer has a different id and does not get confused.

Who is the only current welsh football player to play in spain?

☐ Gareth Bale ☐ Aaron Ramsey ☐ Sam Vokes

Submit

This screenshot shows the question that appears on the website. It shows the question, the options, the checkboxes so that you can chose one and the submit button so it tells you if you are correct.

```
<script text="text/javascript">

function changestyle() {

    sportnews = document.getElementsByClassName("row")
    sportnews[0].style.color = "#FF0000"
    sportnews[0].style.border = "solid"
    sportnews[0].style.borderColor = "#FF0000"
    sportnews[0].style.width = "1000"
    sportnews[0].style.borderWidth = "50"
    sportnews[0].style.backgroundColor = "#99CCFF"
    sportnews[0].style.fontSize = "30pt"
}
```

The second JavaScript is a button what allows you to make the text bigger. An array is used to change multiple things at once using the class name row.

```
<div class="container" id="row1">
  <div class="row">

    <input type="button" value="press to make text bigger" onclick="javascript:changestyle()">
```

This shows the button under the container div class which adds a button to make the text in the container class change colour and size.

press to make text bigger

Welsh Football

Swansea City

The Swans are currently in their 7th year in the Premier League and have been quite consistent in their time in the league. In the first couple of seasons they were a steady premier league team which finished mid tabled respectively. In the last three seasons they have struggled and have stayed towards the bottom end of the league.



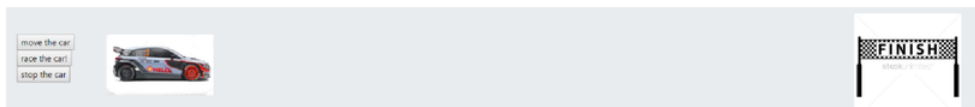
This shows the text on the website after the button has been pressed.

```
function moveleft()
{
    a = document.getElementById("rallycar");
    a.style.right = a.offsetLeft + 20;
}
```

The next screenshot is the JavaScript which makes the rally car move across the page when button is pressed.

```
<div class="jumbotron">
  
  <br>
  <input type="button" id="right" value="moveright" onclick="javascript:moveleft()">
</div>
```

This is the code which loads the rally car and creates the button to make the car move.



This shows the rally car on the website with the button that makes the car move once, move across the screen and stop the car.

3. Methodology – how the components were produced, the approach taken and why

The first bit of JavaScript that was used on the website was a quiz, it is a five question quiz in which the user can tick the box in which they think the correct answer is. The JavaScript is a function for each question so that an alert will pop up saying that the wrong answer was entered. When testing, the program would have an alert but for the wrong question, so more functions were added. It will tell you if you were correct or not depending on the answer that you chose by ticking the boxes with the answers. It is followed by an if statement which will go through the code and work out depending on the answer the user chose. Each option for the question is equal to 'answer' and the number depending on the question. If question one is checked in the box, it would have chosen answer 1. It then goes into the if statement, if answer 1 is checked, display the alert 'correct it was Bale'. There is then an else statement which means

that if the requirements for the first statement doesn't match, it will automatically do whatever the else statement says, in this case it will.

The second JavaScript that was used was a button which allowed the user to make the text bigger, this was added in because some might not be able to see small text and JavaScript was used to an advantage. To back up why this was used 'usability and user experience hinge on the preferences of the end users' [1], this backs up the point that the text might be small and some users might not be able to read some of the text, so a button which enlarges the text was added to help the user. It works by using an array so that a number of changes can be made to the text without applying the each change to the container, an array is putting the colour changes and the text size and other attributes into an array so that the class will be named and all of them will be changed as an array.

The third JavaScript is a picture of a rally car on the rally page on the website. There is a button which allows the user to press it and it will move across the page on the click. When the button is pressed it goes through the function and makes the picture of the rally car move depending on how many pixels are in the code.

4. Conclusion

After reviewing the JavaScript that has been made for the assignment, the development of the JavaScript is good because the JavaScript starts with a simple quiz which runs off the users input in which the user will chose what happens next with the JavaScript. This is also the same with the other JavaScript components, they only work through the users input. After using JavaScript on a website to enhance the user and to make them involved with the website, the things that have been learned are that JavaScript is a useful language and is vital for websites because they help them add something else to a website. Also using JavaScript to interact with other programming languages such as html. After adding the JavaScript to the website, the website was successful and the JavaScript work how it was planned, and the use of functions and forms was a vital part of making the scripts.

5. References

- [1] E. Devaney, "8 Guidelines for Exceptional Web Design, Usability, and User Experience," 28th April 2016. [Online]. Available: <https://blog.hubspot.com/blog/tabid/6307/bid/30557/6-guidelines-for-exceptional-website-design-and-usability.aspx>. [Accessed 3rd May 2018].
- [2] rally car picture <https://www.topgear.com/car-news/motorsport/300bhp-i20-hyundais-rally-car-2016>
- [3] finish line picture https://www.stockunlimited.com/vector/finish-line_1479002.html

FINAL GRADE

56/100

GENERAL COMMENTS

Instructor

WEBSITE

Practical Application and Deployment (70)

Component 1 - Quiz - I'm a bit confused why you have a different form for each question, it would be better to have one form, analyse all the answers, and then perhaps give a point score. In this way you could use your points=points+1 which is currently unused. Also, the last question tells me Swansea is the wrong answer when it is supposed to be right (is it prophetic?!). 11.5/20

Component 2 - Change style - It isn't very far from the class work really. You could have extended this by using different elements, or allowing the user to go back to small text. Also, you could have removed the button after it has been used - currently it still says "make text bigger" but after clicking it once it's already at its biggest. 9/20

Component 3 - Race car - Again, it's not a long way from the classwork we did, but I like the use of the race car and you've detected when it's gone off the screen. You could have reset the car, or had it racing at different speed etc to show off different skills. 11/20

(60 marks – broadly 20 per component)

- Overall integration of website – Some of the text is very large - so much so that it interferes with comfortable reading of the site and requiring a lot of scrolling. Generally though, well laid out and navigation is OK too. 6.5/10(10 marks)

REPORT

Analysis (15) – Analysis of the technical development of your Javascript component

You've said what you've done quite well, but I would have liked more of a technical analysis. For example, why have you chosen to put the colours in an array? Is this approach better than using, for example, a switch statement and why? A bit on the short side. Again, you haven't mentioned the timer? 8/15

Knowledge and Understanding of Subject (15) - Annotated code listing.

A bit confused at times. You need to be a bit more specific in your working. eg "Each check box has a unique ID to allow it to be accessed by the Javascript function" or similar. A bit more detail needed on the rally car - I don't think you've mentioned the timer? 9.5/15

OVERALL MARK: 56%

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