

ECS417U Lab Sheet

Topic 5 - Advanced CSS

Exercise 1

For this exercise, you will be creating a HTML5 document that demonstrates your understanding of CSS floats, margins and padding.

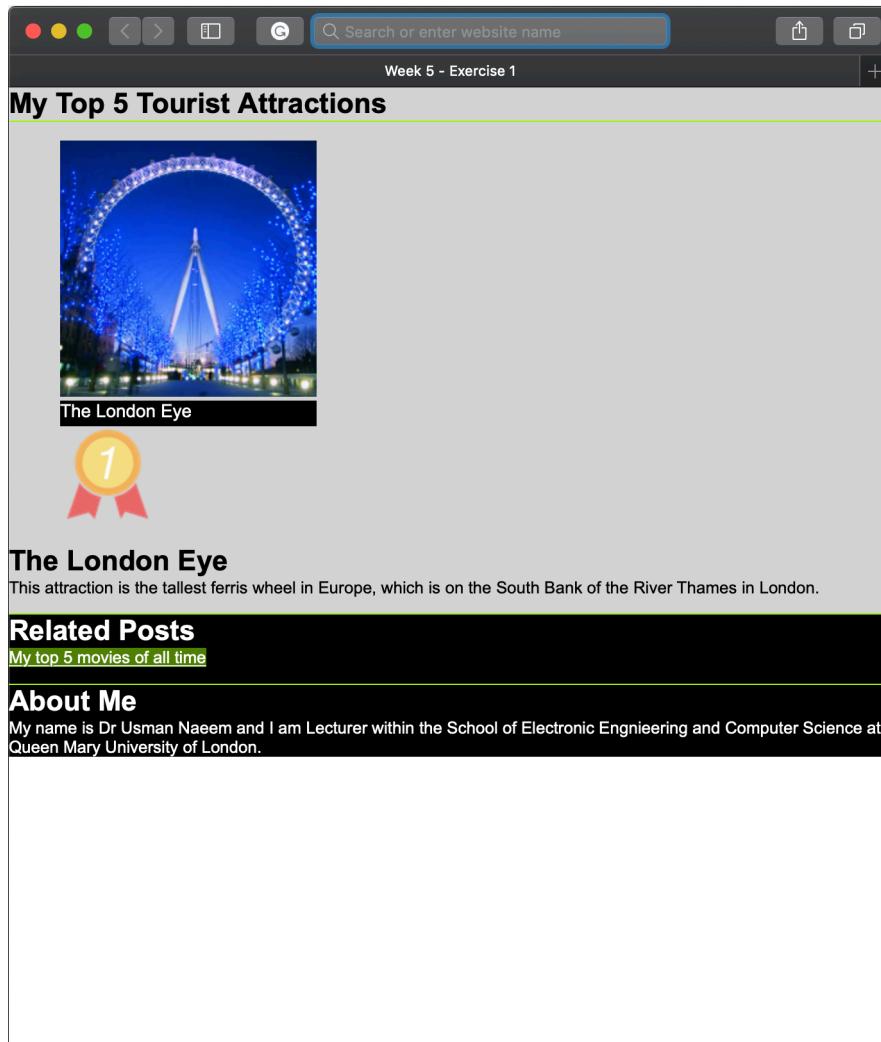


FIGURE 1

Part 1

Create a HTML5 document and an external style sheet that outputs a webpage that looks similar to the example shown in figure 1, which will display your top five tourist attractions. Note that only one attraction is included in this example, however you will be required to provide five attractions. Use the following markup to display the pictures of your favourite attractions. This markup also includes a ranking icon called first.png. You will need to add a rank icon under each of your attraction images. The rank icons are available to download from QMPlus+ homepage.

```
<figure>
  
  <figcaption>The London Eye</figcaption>
  
</figure>
```

In order to create this page, you will also need to make use of the following elements:

- <article>
- <div>
- <footer>

Part 2

For this part of the exercise, you will only be required to make modifications to your external style sheet so that the output of the webpage will look similar to figure 2. Note, that the example shown in figure 2 only has two attractions, while your page will have five.

In order to fulfil the objectives of this task, you will need to change the margins and paddings of the <article> element. You are encouraged to use *em* units for font sizes, margin and padding values.

Use containing floats and overlaying to display the content within the <article>. The <footer> should use the same floating techniques. You can use pixel units for the overlapping elements.

The screenshot shows a web browser window titled 'Week 5 - Exercise 1'. The main content area displays a list of tourist attractions. At the top, it says 'My Top 5 Tourist Attractions'. Below this, there are two entries, each featuring a numbered badge (1 or 2) and a thumbnail image. The first entry is for 'The London Eye' and the second for 'Burj Khalifa'. At the bottom of the page, there are sections for 'About Me' and 'Related Posts'.

My Top 5 Tourist Attractions

1 **The London Eye**
This attraction is the tallest ferris wheel in Europe, which is on the South Bank of the River Thames in London.

2 **Burj Khalifa**
This attraction was formerly known as Burj Dubai, which is a skyscraper in Dubai, United Arab Emirates.

About Me
My name is Dr Usman Naeem and I am Lecturer within the School of Electronic Engineering and Computer Science at Queen Mary University of London.

Related Posts
[My top 5 movies of all time](#)

FIGURE 2

Exercise 2

For this exercise, you will be creating a HTML5 document that demonstrates your understanding of absolute positioning and floats.

Part 1

Create a HTML5 document and an external style sheet called reset.css (that removes all the browser formatting) that outputs a webpage that looks similar to the example shown in figure 3. Please note that you will be expected to populate this page with your own information.

In order to create this page, you will also need to make use of the following elements:

- <nav>
- <div>
- <aside>

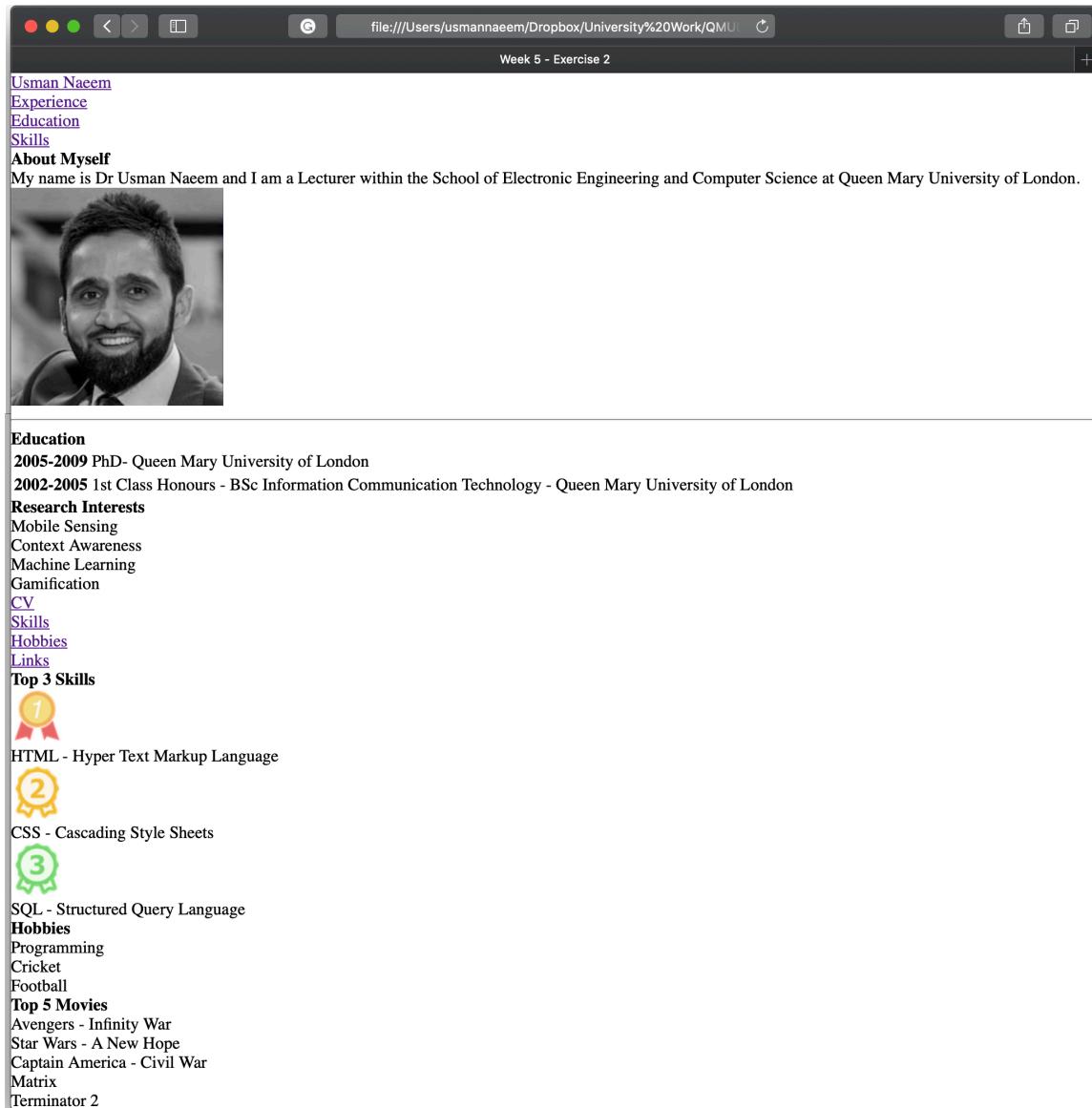


FIGURE 3

Part 2

For this part of the exercise, you will create external style sheet so that the output of the webpage will look similar to figure 4. You will be expected to create a three-column layout using absolute positioning

and margin settings. Within the main column, the “About Myself” div and photo (e.g. my picture in figure 4) div will use floats rather than positioning.

Within the boxes for “Top 3 skills”, “Hobbies”, and “Top 5 movies”, you will need to use floats, block display, and padding values.

Test your page by increasing/decreasing the zoom levels of the browser. If you have used em units for font sizes, margin and padding values, then it should scale to the different zoom levels.

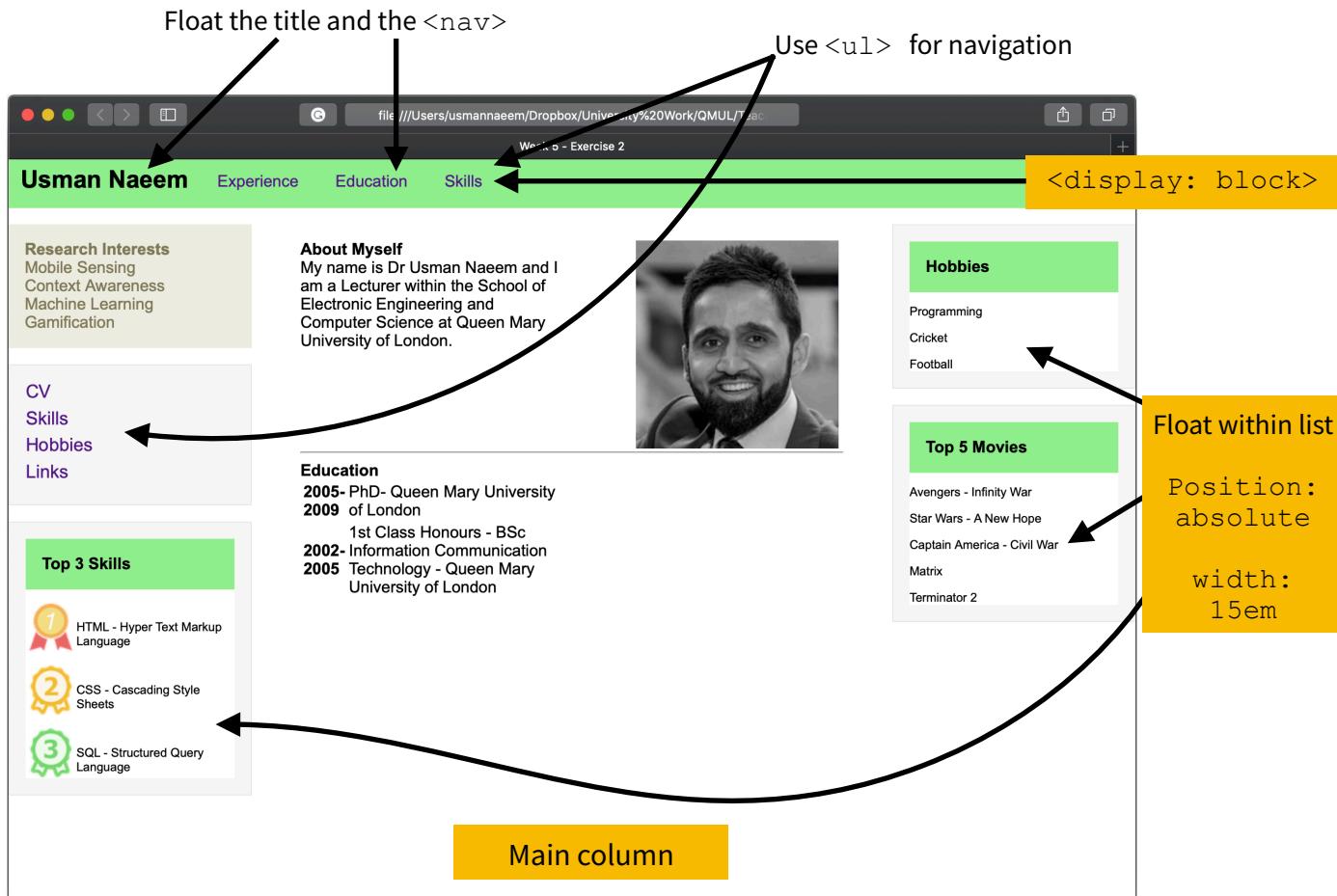


FIGURE 4

Exercise 3

For this exercise, you will be creating a responsive HTML5 webpage that uses Bootstrap, which is a framework for building responsive and mobile-first sites. The output of this HTML5 document should look similar to figure 5.

In order to create this page you will need to add HTML elements in accordance with the Bootstrap documentation, which is accessible via the following link:

<https://getbootstrap.com/docs/4.1/getting-started/introduction/>

As you will be using various Bootstrap classes, you will not be required to write any CSS files for this exercise. In order to get started, your HTML5 document will need to be set up with the latest design and development standards. In addition to the HTML5 doctype, the page should also include a viewport meta

tag for responsive behaviours, reference to Bootstrap stylesheets and javascript plugins. A sample HTML5 template is available on QMPlus+.

Main Row

col-sm-2	col-sm-7	col-sm-3
----------	----------	----------

Nested Row

col-sm-8	col-sm-4
----------	----------

`<ul class="nav nav-pills flex-column">`

`<nav class="navbar navbar-expand-sm bg-dark navbar-dark">`

Usman Naeem About Myself Experience Education Skills

Research Interests
Mobile Sensing
Context Awareness
Machine Learning
Gamification

CV
Skills
Hobbies
Links

About Myself
My name is Dr Usman Naeem and I am a Lecturer within the School of Electronic Engineering and Computer Science at Queen Mary University of London.

CV
Skills
Hobbies
Links

Column 1

Education

2005-2009 PhD - Queen Mary University of London

2002-2005 1st Class Honours - BSc Information Communication Technology - Queen Mary University of London

Column 2

`<div id="table-responsive">`
`<h2> Education </h2>`
`<table class="table">`
...

Column 3

Hobbies
• Programming
• Cricket
• Football

Top 5 Movies
• Avengers - Infinity War
• Star Wars - A New Hope
• Captain America - Civil War
• Matrix
• Terminator 2

Column 1

Column 2

Column 3

FIGURE 5

1. The first step will be defining the basic structure. Figure 5 shows that most of the content is contained within a main row (e.g. below the navbar) that is composed of three columns (column one = 2, column two = 7, column three = 3). The Bootstrap grid classes (e.g., col-sm-2) are shown at the top of the figure. Column two has a nested row that is composed of two columns (column one = 8, column two = 4), which contains “About Myself” information in column one and an image in column two.
2. Figure 5 identifies the other Bootstrap components that need to be used for this exercise. You will need to use the online Bootstrap documentation for more information on how to use these components.

Marking Criteria

The assessment for topic five is based on Exercises 2 and 3.

Exercise 2 - Assessment Criteria 1

Evidence of creating page with correct elements: <nav>, <div>, <aside>

Marks breakdown

0 mark	No evidence of correct elements
0.5 mark	One to two elements
1 mark	Three elements

Exercise 2 - Assessment Criteria 2

Three-column layout using absolute positioning and margin settings

Marks breakdown

0 mark	No evidence of three-column layout
1 mark	Three column layout created
2 mark	Three-column layout created with absolute positioning and margin settings

Exercise 2 - Assessment Criteria 3

Evidence of using floats within lists and main column

Marks breakdown

0 mark	No evidence of using floats within lists and main column
1 mark	Floats within lists
1 mark	Floats within main column
2 marks	Evidence of floats within lists and main column

Exercise 2 - Assessment Criteria 4

The style of the developed webpage should be similar to the example given in the practical worksheet

Marks breakdown

0 mark	No similarity
2 marks	Partially similar
4 marks	Similar

Exercise 3 - Assessment Criteria 1

Evidence of navigation bar being responsive to window shrinking

Marks breakdown

0 mark	No evidence of responsive navigation bar
1 mark	Partially responsive (without links)
2 marks	Responsive navigation bar

Exercise 3 - Assessment Criteria 2

Evidence of creating main and nested rows

Marks breakdown

0 mark	No evidence of rows with correct number of columns
1 mark	Main rows with correct number of columns
1 mark	Nested rows with correct number of columns
2 marks	Evidence of creating main and nested rows with correct number of columns

Exercise 3 - Assessment Criteria 3

Evidence of media objects

Marks breakdown

0 mark	No usage of media objects
1 mark	Correct usage of media objects

Exercise 3 - Assessment Criteria 4

The style of the developed webpage should be similar to the example given in the practical worksheet

Marks breakdown

0 mark	No similarity
4 marks	Partially similar
6 marks	Similar