

6G5Z2107: Web Design and Development

Lab 02 – Getting Started with jQuery

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Objectives

- Be able to form jQuery selectors to obtain DOM elements
- Be able to form jQuery statements to manipulate CSS & the DOM itself

The aim of today is to reinforce the concepts we covered in this week's lecture. You can, and should, refer to the slides used in the lecture, and you may even wish to challenge yourself by running through the quiz again. We will gain some practical hands-on experience of writing our own jQuerys to solve some small puzzles in the form of HTML pages that need a little more work doing...

Exercise 1: My Shopping List

I have made a website to remind myself what I need to collect the next time I visit the store. I have chosen to use an unordered list, `` to do this, but unfortunately, I have forgotten to actually put any items in it!

Start with the file **exercise_one.html** where some work has already been done for you, and get ready to write some jQuery where the comment says "Add your jQuery here".

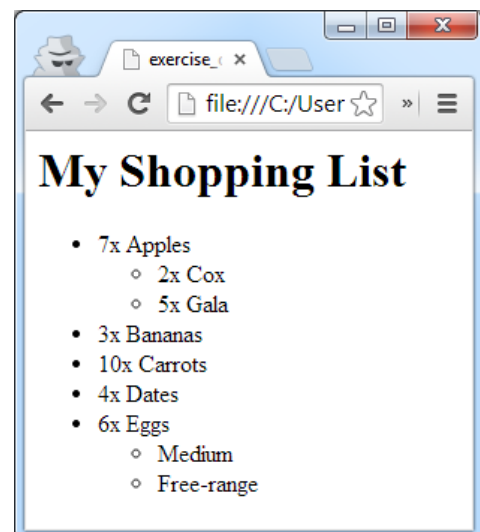
Your goal is to add the following items to the shopping list:

- 7x Apples
 - 2x Cox
 - 5x Gala
- 3x Bananas
- 10x Carrots
- 4x Dates
- 6x Eggs
 - Medium
 - Free-range

You can add all of these items using jQuery and jQuery alone, and you do not need to manipulate the HTML already in the page to do so.

Start by thinking about what selector(s) you might need, and how we can add objects to the Document Object Model using jQuery, and what we need to add, and how we might go about it. Don't be afraid to ask if you get stuck.

When you are finished, your work should look something like the image above.

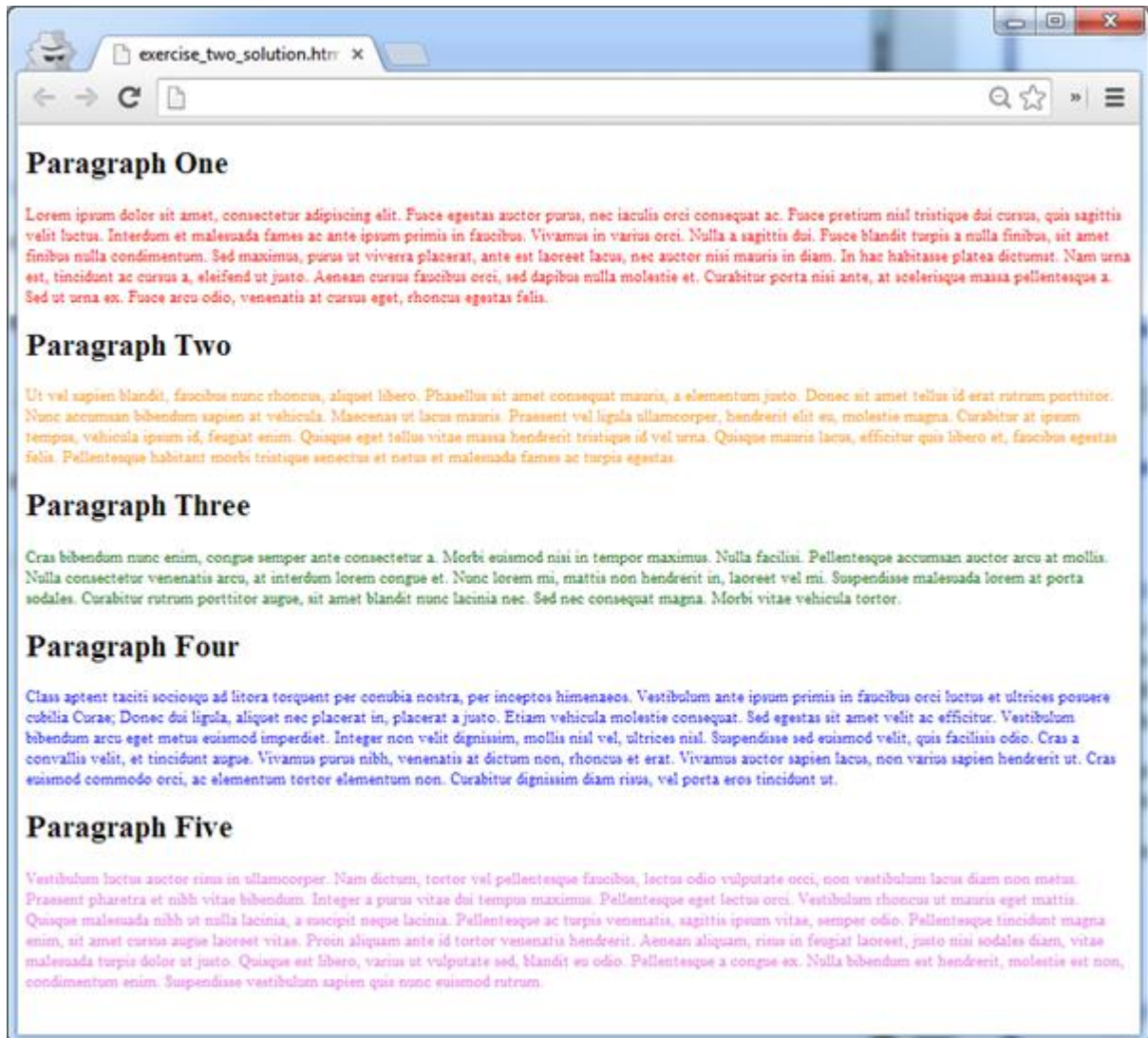


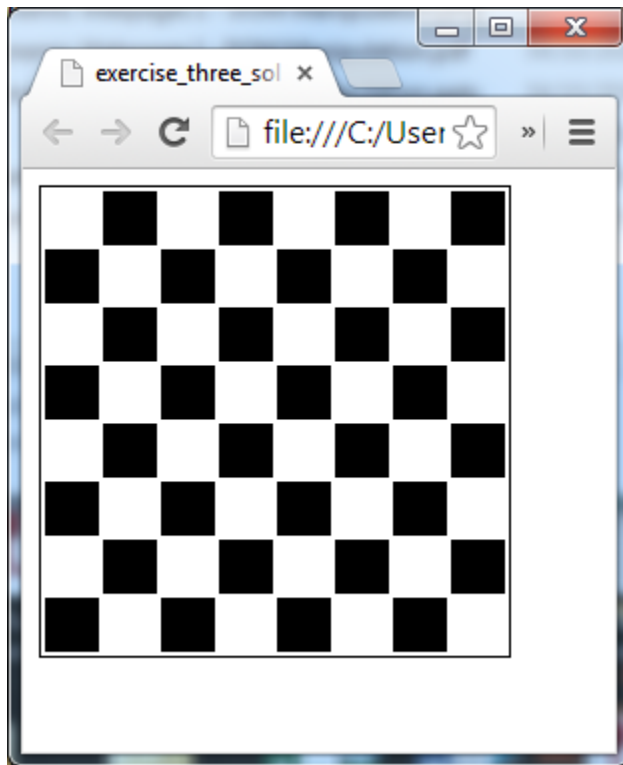
Exercise 2: A Very Plain Page

You have been given a webpage with five paragraphs on it, and each one (despite being *Lorem ipsum* placeholder text) needs to be identifiable from the others. It is suggested that you do this by (a) Adding a heading to each paragraph to identify which it is, and (b) colouring each paragraph differently from the others.

Importantly, you should not colour the headings the same as the paragraphs – these should all have their own consistent colour.

When you are finished, your work should look something like the below:





Exercise 3: Let's Play Chess

Your website this time contains a table, with 8 rows and 8 columns. Your challenge is to colour this such that it looks like a chessboard – that is, there is alternating cells of white and black. You might also want to resize each of the cells so that it is a square. We didn't look at how to do sizing in the lecture, but don't panic! See if there is anything on the cheat sheet, or the Internet, to help you, and if you can't find anything, ask your tutor.

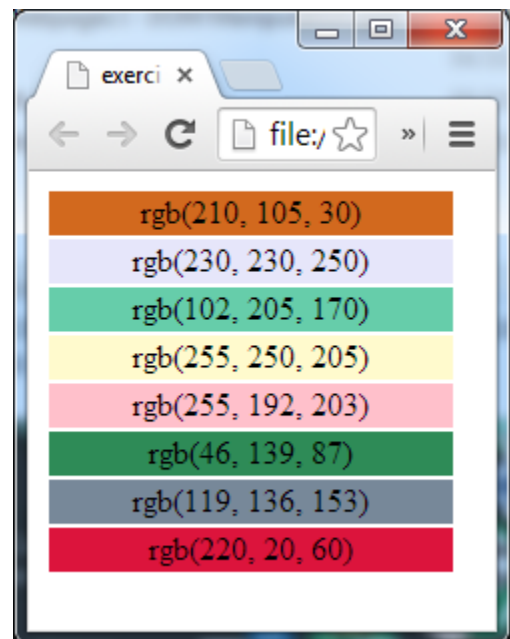
When you are finished, your work should look something like the image on the left.

Extension Exercise 4: What Colour am I?

This time, your page has a table with some mystery colours in each cell. Your goal is to add the information about the background colour to each cell (in the R/G/B format). This is a tricky one, and you will need to do some additional research on the work we have covered in the lecture to try to solve this problem.

If you want to try to solve it, but don't know where to start, or you've had a go but feel like you aren't getting anywhere, have a chat with your tutor.

When you are finished, your work should look something like the image on the right.



Help! I don't know what to do!

Don't panic!

There are plenty of resources available, including the following, which are all great starting points:

- The lecture slides (available on Moodle) which recap what we covered in the lecture
- w3school's jQuery tutorial: <http://www.w3schools.com/jquery/>
- The jQuery Cheat Sheet: <https://oscarotero.com/jquery/>
- jQuery Essential Training on [Lynda.com](https://www.lynda.com) – covers more than you need to know!

Exercises 1-3 can be solved using combinations of everything we talked about in the lecture in some way. You may have to use them creatively, but by combining ideas, you can solve all of the problems. As with all things programming, try to solve things one at a time – e.g. for exercise one, try to just add one shopping list item and get this working before you try to add two.

If you are having difficulties, please discuss with your tutor, who will be able to guide you through some of the early steps to solving the puzzles.

I fancy a challenge, what do you recommend?

Have a go at the extension exercise (#4). This requires you to do some research into using jQuery in ways we did not discuss in the lecture. You may find some of the following resources useful:

- <http://api.jquery.com/> - The jQuery API (everything you can do with jQuery!)
- **Spoiler alert:**
 - <http://api.jquery.com/jquery.each/> - this particular page might come in handy...

Next week we are going to look at events – why not start getting some research in early?