Introduction to D3
(and coursework)

Max

Apologies. Max is trying to keep himself together.
Coursework 1

Validation
Discovery
Alignment
Importing
Open-Data
Linked-Data

Agile
Top-Down
Mobile
Development

Visualisation

User-experience
Re-Usability
Focussed-Design
Addiction

Open-Innovation
Intellectual-Property
Marketing
Pitching
Coursework 1

- Produce 2 Interactive Visualisations from the supplied dataset
  - You should aim to make the visualisations different (e.g. not two bar charts!)

- These visualisations should be both appropriate for:
  - Representing the data
  - Presenting to a target audience
Coursework 1

- Interactive
- Dynamically Generated
- Web Based
Coursework 1

- GP Earnings and Expenses DataSet

- Dataset from 2009-2010 and 2010-2011

- You do not have to use all of the data
  - e.g. Limited columns
  - e.g. Limited timeframe
Tips

- This coursework is 20%
  - 40% as this is a double module

- Distribute your effort in order to cover the marks scheme.

- Don’t get too stuck in one area.
Marks Distribution

- Choice of Visualisations (5 Marks)
- Implementation (4 Marks)
- Interactivity (4 Marks)
- Cleaning and Manipulation (5 Marks)
- Completion (2 Marks)
Choice of Visualisations (5 Marks)

- Two Visualisations
- Appropriate to the data
- Appropriate to the audience
- Multi-Dimensional
Interactivity (4 Marks)

- Appropriate
- Enables Selection
- Filtering
- Analysis
Implementation (4 Marks)

- Uses appropriate library
- Dynamic
- Flexible
- Elegant and maintainable, robust and smooth in operation
Cleaning and Manipulation (5 Marks)

- Identified
- Corrected

- Essentially 1 mark per error type
- Manipulated / Enriched
Completion (2 Marks)

- Exceptional Solutions
  - This is the section reserved for surprising the markers with exceptional results

- There are many ways to get these marks
  - Due care and attention to complete one area
  - Exceptional implementation
  - Enriching data (don’t lose audience!)

- 2 Marks! So don’t focus on this
D3

- A JavaScript library to manipulate a web page in the context of a dataset
- HTML, SVG or Canvas
- CSS, jQuery and JSON
- Focuses on the data
D3 (Continued)

- Forces the publication of data
- Proper use of technologies
- Reads JSON 😊
Toolkit

- D3 javascript
- Debugging Console!
- (jsFiddle)
D3 Key Methods

- ‘Method Chaining’ or ‘Cascading’

- `select()` and `selectAll()` blesses a node ready to receive data.

- `enter()` prepares items in the dataset NOT displayed to be rendered.
  - All to start with
  - Limited Items Later
DEMO
(the bit where it goes wrong)
Resources

- Getting Started with D3 (O’Reilly)


- Interactive Data Visualisations (O’Reilly – March 2013)