305CDE Developing the Modern Web 2

Introduction to Labs 2014/15

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Schedule

Lectures

- ► Tuesday 1-2pm, ECG-27

Labs (one of)

- ► Monday 11am-1pm, ECG-14
- ► Wednesday 9-11am, ECG-14

Today

- 15 minute introduction
- No lab work until next week!

The Year Ahead - Content

Split in to four parts:

1. JavaScript
2. JavaScript
3. JavaScript
4. JavaScript

The Year Ahead - Content

In more detail:

1. Fundamentals of the JavaScript language (5 Weeks)
2. Building client-side applications with AngularJS (6 Weeks)
3. Designing server-side RESTful services (5 Weeks)
4. Building server-side RESTful services with NodeJS (6 Weeks)

The Year Ahead - Assessment

No exam.

Two coursework assessments (one each term):

1. Individual 40%
   - Portfolio of code selected from 10 weekly challenges
   - Video demonstrations of your code

2. Individual 20%, Group 40%
   - RESTful API business pitch
   - API design documentation
   - Server-side code that implements your API
   - Individual reflective report

Weekly Lab Format

What will we do in labs??

2 hours split in to four parts:

1. JavaScript
2. JavaScript
3. JavaScript
4. JavaScript

Weekly Lab Format

In more detail: WORKSHEETS + CHALLENGES

1. Review previous week's challenge
   - get formative feedback from tutors
   - save or commit your solution to git version control

2. New worksheet
   - work individually

3. Presentation by tutors on *concepts and theory*
   - understand the worksheet you just did
   - learn how to do the next challenge

4. Next programming challenge issued

Get Prepared

Before next week:

1. Get ready for version control with Git
   - Sign up for a free GitLab account at `http://gitlab.com`

2. Install development tools on your computer
   - Git client
     - SourceTree (Windows and OSX)
     - GIT-SCM (Linux)
   - Code editor
     - Brackets
   - Browser
     - Google Chrome

Get Inspired

Before next week:

- Take a look at some badass JS on `http://badassjs.com`
    - control 3D holograms with hand gestures
    - make voice and video calls in the browser
    - do peer to peer networking in the browser
    - collaborate on 3D designs
    - visualise complex mathematics

All of these and much more can be done with pure JavaScript!

Resources

- All Slides, code, and documentation for the labs
  - `https://gitlab.com/c0lin/305cde`
- Become a Git Guru
  - `https://www.atlassian.com/git/tutorials`