
University Of Portsmouth
BSc (Hons) Computer Science
First Year

Core Computing Concepts

M30220

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20 Credits

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Contents

I	Video Essay	2
	Introduction To Module (27-09-22)	3
	Reviewing Previous Work (04-10-22)	4
II	Web	5
	Introduction & Markup (08-11-22)	6
	Style (15-11-22)	8
	URLs and Images (22-11-22)	9

Item I

Video Essay

INTRODUCTION TO MODULE

📅 27-09-22

🕒 13:00

🎓 Nadim

📍 RB LT1

This module is split into four items. The first of these is a video coursework project. The second, third and fourth are combined into an end of year exam. Each item is worth 25% of the overall module grade, therefore the end of year exam is worth 75%.

This module was created because the University doesn't do modules which are smaller than 20 credits and none of the items are big enough to be their own module.

To pass the module, you need to score at least 40% overall, not in each individual item.

The four items are taught by different lecturers and are shown below

1. Video coursework
2. Web
3. Security
4. Either UXD or DB (which we do is decided for us)

Each item will be introduced to us when we start that item.

Item 1: Coursework

This is due at 11pm on 16th December 2022. It is to be uploaded to YouTube, with a link to the video put in a PDF document which is uploaded to Moodle.

This item is able to be done either in groups or by individuals, it should be very easy to get a good grade in it.

The task is to select a conversation and analyse the conversation, using supporting research and references.

The video should be at most 4 minutes long, it can be a mixture of different takes edited together. There are a number of different pieces of editing software available on App-Somewhere.

More Information

More information for this coursework can be found on a Google Doc which is linked from the Moodle page. This Google Doc links to the official University Coursework information document, the conversations and outlines the lecture plan for the first half of TB1.

There is a one lecture per week and an optional drop in session per week. The drop in sessions are primarily there to answer quick questions.

REVIEWING PREVIOUS WORK

📅 04-10-22

🕒 13:00

🎓 Nadim

📍 RB LT1

Historically, one of the biggest weaknesses to previous coursework submissions was the lack of knowledge of how it was graded.

For an animated video, look at Powtoons.

You are able to use AI voice generators to speak the script, however this is a risk as its not your voice on your submission. If you do use an AI voice, you must submit the script as a PDF to prove it is your own work.

The following list are things which were included in examples that I think are the attributes of high scoring videos

- Present the video as an argument, with one side then respond to it from the other perspective;
- Lift quotes out of the conversations and question, elaborate and research around them;
- Use evidence for all points

Th argument analysis included after each conversation is new for this year and the use of it won't loose or gain marks. It is there to give guidance for those who are unsure of where to start otherwise.

Item II

Web

INTRODUCTION & MARKUP

📅 08-11-22

🕒 13:00

🎓 Rich and Co.

📍 RB LT1

Introduction to Item II

There are a number of different lecturers on this module: Rich, Matt and Kirsten. The exam will be computer based however not all computer marked. It will comprise mostly of multiple choice questions which will test knowledge of modern HTML and CSS. The multiple choice answers will be evil. The best practice is preparation. Exam date and time will be in January and will be announced on timetable at some point. There is a Google Doc linked from Moodle which contains all the information and resources about this item. This document contains, pre session, during session and post session work. There are drop ins on Thursdays in the FTC, these are compulsory. There is a channel on the Discord Server (#ccc-web) where support can be sought. The recommended book is available electronically through the library. One of the authors, Remy, has delivered guest lectures at the University.

Online Resources

Look at Mozilla Developer Network, add MDN to the end of any Google query about web development and their resources will come up. Do not use W3Schools. It is bad.

Markup

Markup comes from the days of editors hand writing articles to be printed then annotating that with styles. This document then goes to a Typesetter who would design the content based off of the editors markings, hence markup. HyperText Markup Language (HTML) is a form of markup, which is non-linear. It is a series of opening and closing tags, which together make an element. Elements can have attributes which provide more information on them or the way in which they should behave.

HTML Introduction

HTML5, the latest and most up to date version, should always start with the line `<!doctype html>`. This will tell the browser that the page is to be rendered as a HTML5 document. A HTML document is comprised of two sections, a `<head>` and a `<body>`. In HTML5, the two sections do not need to be marked out as different sections, once you have specified that the document is HTML5 then the renderer is able to infer the difference.

`<head>`

This contains information about the document. Elements which you might see include `<title>` which defines the title of the page and `<meta>` which provides additional information about the webpage. Nothing in the head element is rendered.

<body>

This contains the content of the page. Numerous different tags are available within this to define the style of the content.

Markup

There are two types of Markup.

Procedural

This defines what to do and how it looks. It does not define why to do it.

Descriptive

This says what it means, not how it looks or what to do.

This is stratified (separates content from presentation), dynamic (different presentation to suit circumstances) and semantic (enables machine processing).

This means that we use descriptive markup, with semantic value, improving information quality and consequently styling of our pages must be achieved outside HTML.

STYLE

📅 15-11-22

🕒 13:00

🎓 Rich & Co

📍 RB LT1

Cascading Style Sheets

Cascading Style Sheets (CSS) have been around since about 1997. They are a W3C standard for styling HTML and take the form of text files. The files contain rules which users define.

CSS is comprised of a number of rules.

```
LANGUAGE: CSS
1 p{
2   background: red;
3   color: white;
4   padding: 1em;
5 }
```

The rule above will turn the background colour to red, the text colour to white and give a padding on all sides of 1em to every p element in the page.

Selectors

There are a number of different ways in which we can define what elements in a HTML document we want to target with a given CSS rule.

- `p{}` will target all p elements within the document. This is the same for any other element when the rule is written this way.
- `*{}` will target *everything* in that HTML document.
- `#myid{}` will target the elements with the id of `myid`. This is the same for any other ids used in the same way.
- `.myclass{}` will target all the elements with the class of `myclass`. This is the same for any other classes used in the same way.
- `classOne, classTwo` will target both `classOne` and `classTwo`. This is useful for when multiple components on a HTML page need styling in the same way.

URLS AND IMAGES

📅 22-11-22

🕒 13:00

🎓 Matt & Co

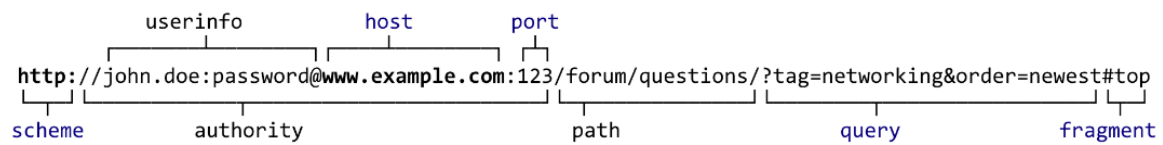
📍 RB LT1

Uniform Resource Locators (URLs), a subset of Uniform Resource Indicators (URIs) allow us to navigate throughout the internet. They take the following form:

`https://port.ac.uk/`

`http://www.example.com/forum/questions/?tag=networking&order=newest#top`

They can be typed into an address bar, hyperlinked or used as the `src` attribute on elements.



URL Structure