

Simple CMS

Challenge Rating: 4/5

[Manchester Fashion Institute](#) is a prestigious part of MMU. It is multifaceted, reaching into the arts, research and [business](#).

Most staff at some point need to engage with people outside the institute if they want to form the long-lasting collaborations which pool funding and create fruitful projects. That means taking presentation materials to their meetings, which illustrates their background succinctly, but with impact.

You guessed it; enter the brochure.

Brochures are actually really necessary: they are glossy and compelling, and provide a welcome distraction in what is always a slightly awkward (if you're me) situation.

However. They brochures are expensive to produce; impossible to change if there's a mistake, or if situations change; and go in the bin after the meeting.

We'd like a way of providing all the good bits of a brochure, without all the bad:

- **An app**, viewable on any tablet, which provides a convenient way of displaying brochure materials, offline
- **A Content Management System (CMS)**, which provides a way of collecting the materials together, in the order in which they should be displayed.

Requirements

The App

1. Supports iOS and Android
2. Provides easy login to the CMS
3. Downloads the required materials if they need updating
4. Places tablet in Kiosk Mode for a meeting (no looking at my emails when you're supposed to be looking at the impressive presentation)
5. Supports the existing way of working: if the marketing department is producing material in pdf, then that format is supported. No extra work required on the content side.
6. Suggested media types supported:
 1. pdf
 2. movie files (.mov, mp4, etc)
 3. image files (jpg, png, etc)
7. Provides an elegant, intuitive, linear navigation method between content items.
 - Elegant - it's the material which is on show, not the app.
 - Intuitive - The app will be handed over to someone who won't ever have seen it.

- Linear - The material will tell a story
- Navigation it should be easy to get back to a point in the narrative to focus conversation on

8. Seamless movement between media types:

- a brochure could present: a pdf, followed by a movie, followed by another pdf, followed by a jpg
- a brochure could present whole or part of a pdf or a movie.
- it should be easy to interrupt a movie, or a pdf and go to the next item

9. Available on the App Stores

The CMS

1. Holds the collection of materials
2. Allows the definition of the order in which they are displayed
3. Supplies multiple downloads making up a presentation. First, is the manifest, which contains a list of the materials to be downloaded, their presentation order and any other data for their presentation (for example, if a pdf, what pages to show). Following the manifest is the download of the materials.

Design and Implementation constraints

Storage will be a [OneDrive](#) Account.

The App will be multiplatform, and coded in [Ionic 1](#) / Cordova. **Note:** Ionic 1 and AngularJS are the only versions of these frameworks we support.

The CMS will be a Single Page Web Application, served from Github Pages. Coded in [AngularJS](#) **Note** AngularJS is the only version of this framework we support.

The App's only dependency is the OneDrive account, and the file structure therein. Its job is to scan the account for brochures, check their versions and download them if they have changed.

The CMS's only dependency is the OneDrive account, and the file structure therein. Its job is to define maintain the file structure for brochures and to manipulate their manifests.

In both cases, authentication is handled by OneDrive, which means that boiler-plate authentication is not needed, and we can concentrate on the functionality of the two apps.

We will be making the App available on the App Stores, to make it convenient for our clients to access and download. If others want to use the app, that's OK, but we don't want them to use the CMS. It's a free tier App, and won't cope with the traffic. We will document the OneDrive filestructure on the App Store.

File Structure

A file structure will define a 'brochure' in One Drive.

The file structure will co-exist with other material in the OneDrive.

The file structure will support many brochures.

A brochure is defined as a folder having a file in it called:

```
manifest.json
```

Although the folder itself can have subfolders, only those files in the same folder as the manifest will form the brochure.

Any folder in the OneDrive account can be a brochure.

The folder name does not name the brochure.

Manifest

The manifest file:

- is coded in JSON
- names the brochure, so that it can be listed
- versions the brochure, so that we know if it has changed.
- lists a linear progression of items through the brochure:
 - filename
 - media type
 - order
 - version - allows for single file downloads to update an existing brochure
 - other metadata (any animations, fades, etc)
 - pages (relevant for pdf, etc.)
 - e.g 1,5, 12-14, 17-19
 - timings seconds (relevant for movie files, etc)
 - e.g. 100-120, 1035 - 1065

Experience Areas

This project will allow members to gain and exercise knowledge and experience in the following areas:

- Web technologies (HTML, Javascript)
- Cordova, Ionic & AngularJS (Cross platform mobile application)
- Using 3rd party APIs

Possible costs

n/a

Equipment or Accounts needed

- OneDrive account
- GitHub Account
- Ionic Account