

## Industry project - Front end development – Provisional March 16 2015

Brief: Demonstrate a strong understanding of front end web scripting technologies, content delivery, design and usability to produce a web site or app which incorporates a range of advanced technical features. The project should be negotiated with your tutor, but as a guideline, it should show you are competent in the following:

- Responsive design
- Original javascript
- Javascript libraries
- CSS frameworks
- Javascript APIs
- Creating HTML markup using data feeds, eg JSON, PHP arrays
- Professional code layout and commenting
- On page SEO

These points could all potentially be covered by the production of an original Wordpress theme.

Assessments refer to the Yoobee Best Practices with particular attention to the following extended points.

1. The site or app must function and deliver all content cross-browser, cross-platform, and cross-device on all browsers which have more than 5% usage as listed on <http://gs.statcounter.com>

**ASSESSMENT:** Sites/apps must function in all current browsers on all platforms. Some minor design inconsistencies are acceptable.

2. **Markup - HTML**

Write best practice HTML5 - brief, clear, well commented, with correct indenting

**ASSESSMENT:** Sites/apps must comply with all Yoobee [Best Practices](#) for HTML5

3. **Design - CSS**

Understand the constraints and advantages of web coding to produce designs that will ensure the site functions completely and is attractive cross-browser, cross-platform, and cross-device. The use of a CSS framework is acceptable but you must provide a large degree of customization.

**ASSESSMENT:** CSS pre-processing with LESS, SASS or equivalent is required, and browser prefixing must be accurate and current. All stylesheets must be combined and minified.

#### 4. Javascript

It is expected that an industry project will contain a range of Javascript that is well beyond the simple, entry-level tutorials. It is acceptable to use libraries, eg JQuery. Your web site or app must demonstrate:

Knowledge of the operators, variables, datatypes, objects, properties and methods.  
Familiarity with control structures such as objects, functions, conditional statements, arrays, loops and expressions.  
Knowledge of how to apply logical operators and conditional statements.  
Knowledge of the DOM HTML objects and their properties.  
Event handling.  
Creating and controlling windows and dialogs.  
Forms and regular expression validation and submitting data.

#### **ASSESSMENT:**

*Project based. EG Produce a multipart form which guides the user to complete all fields accurately by using various user feedback mechanisms. Other projects as agreed with your tutor in advance.*

Demonstrate an understanding of the processes for troubleshooting and debugging.  
Demonstrate familiarity with development and debugging tools for cross-browser issues.

#### **Javascript Libraries**

If a Javascript library, eg JQuery or D3, is used:

Demonstrate knowledge of how to use the library efficiently and professionally.

*EG Produce a multipart form which guides the user to complete all fields accurately by using various user feedback mechanisms*

#### **Javascript API**

Work with JS APIs like Google Maps, implementing functionality beyond the entry level tutorials

*EG A map showing directions from the viewer's position to the business, colorized to match the business's branding, with pop up windows displaying additional, useful data.*

**Assessment:** *Incorporating advanced features as agreed with your tutor*

#### 5. Accessibility

<http://www.w3.org/WAI/intro/aria>

All content must be accessible to everyone, regardless of individual disabilities, but specifically to people who must use screen readers or cannot use a mouse.

**ASSESSMENT:** *Sites/apps must comply with all guidelines on <http://www.w3.org/WAI/eval/preliminary.html>*

#### 6. Usability

The intention of a web site/app must be immediately apparent to all users, and all content must be easily located and accessed from all parts of the site. Forms must provide immediate, meaningful responses to user input, and all user interaction

must be acknowledged

**ASSESSMENT:** *Provide documented user testing relating to use case scenarios in the proposal documentation, and evidence provided of changes made in response to other issues that arise during production and testing.*

7. **UX Design**

User experience begins with design and usability, but also takes responsibility for information architecture and interaction design to make the system intuitive

Create the layout

Define interaction patterns, eg drag drop, selections, mouse over actions etc

Incorporate user needs

Maintain consistency throughout the system

**ASSESSMENT:** *Site responds interactively with the viewer to guide their behavior and/or to increase understanding of the functionality.*

8. **Remotely generated data.**

Demonstrate the ability to work with data supplied either as PHP arrays or JSON format to render in HTML. Eg create a gallery with a supplied set of files and a JSON object that lists filenames, caption, and description.

9. **SEO**

Understand best practice in-code techniques for gaining best search engine results.

**ASSESSMENT:** *Google Analytics installed, Webmaster tools installed SEO plan written including timing for requests to index site*

10. **Wordpress/Drupal Theme**

Create a complete, new and original theme for Wordpress or Drupal. This would have to be fully responsive, perhaps using Twitter Bootstrap or other industry standard framework, and/or JQuery. It can incorporate standard Wordpress plugins, eg for ecommerce or an image gallery, and should include most of the features listed above.

## WE06: Industry Project

Research, design, produce and maintain a dynamic web site or web application with all supporting documentation.

### *Learning objectives of this brief*

- to write a detailed creative brief and proposal
- to manage a project such that all deadlines are met
- to design and produce a dynamic web site or web application to industry standards
- to further develop your web skills to an industry standard level
- to test and document your dynamic web site or application
- to develop your presentation skills by presenting your project
- to undertake some self-driven advanced learning

### *Introduction*

For your industry project you are required to produce a dynamic web site that provides advanced web functionality **to a commercial standard**. Equally as important to your assessment is the submission of supporting documents such as a full pre-production proposal and project documentation. Good time management will prove crucial to a successful outcome.

This is the culmination of your learning from the entire course and your final project should demonstrate best practices from each module you have been taught (design and usability principles, coding, documentation, etc).

### *Advanced learning*

The project must display some evidence of advanced learning. To a certain extent, this should be self-driven, showing that you have developed the sort independent learning skills that are important in the web industry. Your tutor will however assist if you get stuck.

You will need to incorporate at least two components that demonstrate independent research.

### *Technical Direction*

You will be appointed a "Technical Director" to assist with your project who will usually be one of your tutors.

### *Time management*

Failure of elective projects is most commonly due to poor time management. As part of the scope (proposal) stage of the Industry Project you must make a detailed project plan, complete with production stage deadlines. Work with your Technical Director to map these out.

If you have a tendency to leave things to the last minute, or require a bit of pressure to motivate you, discuss this with your Technical Director you may need to structure the production stage of your project to suit.

## ***Attendance during the Industry Project***

As per the normal diploma attendance requirements, you must be present for at least 80% of sessions to pass. If you need to meet with clients, arrange to do this in your notional (non-contact) hours.

### ***Finding a project***

Identify a business or organisation that could benefit from a web project of similar scope to the requirements of this brief. Ideally this will be a real job, however to avoid complications it may be best if the initial project is unpaid. Whether paid or unpaid, make sure your customer is aware that you have agreed (at enrollment) to allow

Yoobee to display your projects for marketing purposes.

In some cases your project may be speculative. In other words you approach a client with an offer to do a server side project for them, however live implement is optional. If there is no cost involved then this option is zero risk for the client and therefore should be easy for you to pitch to them.

Alternatively, some students enter Web Development with a particular project they want to achieve as an outcome of the course. If the project you are doing is effectively for yourself, your tutor will need to take the role of client in order to provide objective feedback along the way.

## ***Hand in***

- Your scope document, site map, creative brief and sketches, including several concept drawings and the chosen design to completion. Electronic copies should be stored in the docs folder as below
- Your site must be published to your Yoobee.net.nz site as follows, and you must create a subdomain which contains the entire site. This must be :

**we06.firstname.lastname.yoobee.net.nz**

## ***Stage 1 Scope/Brief***

If you are contracting to an advertising agency, they will usually provide a creative brief. Other clients may provide some form of brief or information about what they want, but in many cases you may need to work with the client to produce the creative brief. It needs to explain exactly what the finished product will look like and how it will function.

To clarify the process you are working through, first you have to work out what they want and then you propose a project that will deliver this result . This document should be brief, not reveal too much about your designs or functional content, but provide enough that the client will feel that you understand their requirements and will be able to deliver a web site that will fill their needs, and produce it on time.

## ***Stage 2 Proposal***

Write a project proposal for your client detailing the scope and planning considerations of the intended project. This must be of an industry standard - presentation of documentation is very important in the web industry.

The scope of the project is effectively the blueprint for your project. It should detail as exactly as possible everything that will be needed to develop a web site as detailed in the creative brief.

**In general terms:**

- Describe the project and state the purpose of the project.
- Carry out any initial research related to the project. One aspect of this will be identifying the target market. Try to focus on your target audience and the requirements they have of your finished work in terms of entertainment, information etc. Identify a sample group of site users (three of these people will be needed during the testing phase).
- Detail the criteria by which the product will be judged a success. This should include aspects of user acceptance, general usability, lack of faults or error messages along with the functionality that should be present.
- Include details of the proposed cost and the cost of (optional) extra features.
- Include site plan from the creative brief and note any suggested changes based on your research.
- Include a list of all content (copy & images) that the client will need to provide and a deadline date for them to do this.
- You may want to design mock-ups to convey to the client how you will implement aspects of the project. This may include design concepts and or functional concepts. They may be semi working or simply images such as screenshots.
- Create a detailed time plan setting the production stage deadlines.
- Address any copyright, transferal of ownership or client confidentiality issues and state how you will deal with them.

**In most cases your proposal should at least include the following items (not necessarily in this order):**

- |                                     |                              |
|-------------------------------------|------------------------------|
| * Project Title                     | * Client                     |
| * Site Name                         | * Completion date            |
| * Project Description               | * Main Focus                 |
| * Site Purpose                      | * Site Users/Target Audience |
| * Success Criteria                  | * Site Content               |
| * Initial research and design ideas | * Budget/Breakdown           |
| * Other Requirements                | * Time plan                  |

The project proposal must be approved by your client and Technical Director before you start production. This proposal is part of the assessment of this project - it must be completed for you to pass.

It is vital that you define the project you intend to complete by the deadline for this proposal. If you miss this deadline, your Technical Director may allocate a project for you.

#### *Planning tips:*

1. Break your project into a few major stages.
2. Break each stage down into a series of tasks.
3. Approximate the time each task will take.
4. Fill in a production plan by scheduling deadlines for each task.
5. Run a "to do" list for each production task so that you can keep track of what still needs to be done to complete the project.

### **Stage 3 Production**

- Produce the website or application you have designed.
- Follow the creative brief and your project proposal to finish the project on time and within budget.

Production begins once your proposal has been approved. You are expected to work to your plans, and meet production deadlines. Your Technical Director may offer you advice in managing your workload. If you feel that you're not going to meet a deadline, discuss it with them as far in advance as possible, they may be able to help.

#### *Additional production considerations:*

Make sure you refer regularly to the assessment schedule attached to this document to ensure that your project meets the technical and professional requirements listed.

Create code documentation as you write your code. Also, take notes that will assist you in producing additional documentation including information for the client to give to future developers.

### **Stage 4 Testing & final documentation**

This is probably one of the most important stages of your project, good testing will result in a web site/application that suits the target audience and is fully functional with no cross-browser conflicts.

- Upload your site to a server and test it on all relevant browsers as outlined by you in your brief.
- Check that your site meets the success criteria you specified in your proposal.
- Double-check that all requirements on the assessment schedule are met by going through the list and ticking each requirement you believe has been met.
- Produce a questionnaire for a minimum of three users to complete. These three people should be part of the sample group outlined in your proposal. Make sure at least one person is an inexperienced user and one is an

experienced user. If no one in your sample group fits one of these criteria extend your survey by finding someone who does. The whole purpose is to get feedback about how intuitive and user friendly your site is. Perhaps also feedback about the sites look and feel. Document the feedback and make any necessary changes.

- Document the website/application so that if the company wishes to make their own changes to it, the information they require will be in the documentation. This must include details and passwords for FTP, hosting, Wordpress or Drupal admin areas, etc.
- Document the design requirements relating to implementation and administration of the completed project. For instance, document the use of any copyrighted images and include a completed document that describes all key programming aspects of the project.

### ***Stage 5 Presentation***

The final stage of the industry project is the presentation. You are required to present your finished project as if you were presenting it to the client.

- Include in your presentation a short introduction that outlines the objectives of the project, the target audience, your research and any issues you faced in design and production.
- Demonstrate the use of your final product and comment on any key benefits it provides to the client or the users.
- Answer any questions from the audience.