# End of Project Report

# Current Progress

As the project stands as of the writing of this report I am pleased, more has been achieved than I expected when the coursework was originally assigned especially when it comes to the higher functionality that was described by the course leaders as ‘extra functionality that we would like to see’ for example the ability to drag the product image over the basket image to add it to the basket.

When the work was originally set the task seemed particularly daunting as the project was not just a long term piece of work that was beyond anything else I’ve attempted in terms of schedule it also included multiple different development languages of which at the time were not known to me. Due to this fact I was hesitant to start it and to be honest I didn’t know where to begin. When the first interim deadline was on the horizon I was create a debatably ‘rough’ HTML wireframe together as well as a basic overview of what I was hoping to achieve, these factors allowed for an above average interim but the feedback itself wasn’t hugely helpful in terms highlighting where to go next. It wasn’t until January 15 that work seriously started on this project. Throughout this process I have repeatedly created what I wanted to achieve but after some further investigation I uncovered a better and more efficient method.

One such example is producing the product tables, at first I created the table in the PHP and had both the server script and the html code in the same file. For a while I was content with this but the more research I did the more I wanted to separate the client and server side from each other as well as focussing more on the client side doing the work instead of the server. This lead to the use of the DOM to create the necessary elements and the use of a local array with all the product information stored in it (the data was retrieved and added to the array through an XMLHTTPRequest upon page load) to produce the product table. Many such evolutions of designs occurred during this project especially on the work that I attempted to begin with when I was far less knowledgeable about the subject area.

# Issues Faced

The biggest issue encountered during this project was the learning process itself. Due to a lack of understanding in the practical sessions with a lack of information found on the unit’s website the only realistic solution was self-study. Self-study provided much of the skills necessary to achieve the requirements and the functionality that the course leaders expected. It was without a doubt the most valuable tool/skill in this entire process. If this project was attempted (or reattempted) I would heavily suggest starting self-study early allowing for a good understanding of the topic areas before attempting the work thereby reducing the need to go back and make changes to the code or the prevention of scrapping ideas entirely.

One issue that plagued the process at each turn was a lack of understanding when it came to deciding where to go next. Once each aspect, page or feature had been added the logical step is to immediately move onto the next stage in the process. The issue was that for a good portion of the process (especially the beginning) I was unaware what the next stage was and therefore valuable time was wasted determining the next stage. This was especially prevalent when attempting the more complex expected functionality (for example the basket system).

As mentioned previously there was also the issue of learning the subject area as work is completed. One would not expect it to take up a huge amount of time in the building process but after completing work on this project anybody would know differently. The learning stages took almost as much time as the actual implementation of code and designs. At the beginning of the year when the coursework was first introduced Kit Lester said “This is a skills unit, skills do not come quickly or easily.” and after attempting this project I can’t help but whole heartedly agree. Many fellow students who are also on this unit have not headed this advice or even attempted the work (if they had they would have certainly seen the merit in the advice and taken it to heart). Especially coming from first year’s web unit there is a huge difference in terms of both workload and complexity of work, many fellow students failed to realise this until the last few weeks.

The issue of starting later in the process (January) resulted in an attempt to catch up to where one would expect to be at that stage I spent a considerable amount of time on this work while neglecting other units. This led to completing work at an almost frantic speed which resulted in overlooking some key details that should have been taken into account constantly, and by ‘key details’ I mean documentation. The work became so engrossing that documentation was neglected and therefore it had to be written at the end. The process of documenting long after writing the code is a gruelling task (much to my dismay, especially with all the functionally/features I had approximately ~3100 lines of JavaScript) and one that should be avoided. The biggest issue with this is determining what the function does when you come to document it, if a developer is smart it’s not a huge issue as the function and variables are appropriately named and there is a clear flow. I found myself working through functions line by line in order to have enough of an understanding in order to document it in what I felt was sufficient detail. This could have been easily avoided if I had been smarter when I first undertook this project.

# Scheduling

As per the interims the students were required to submit GANTT charts detailing progress made and their plan for the future in terms of time scale and effort dedicated to each task. Much like everyone else (at least the majority) I submitted such GANTT charts, they were not necessarily adhered to. One issue is that although GANTT charts were created, the dates and time scheduling had little to no impact on the actual schedule of the project. This became a fairly large issue when it came to determining the next stage (as mentioned earlier in this report) and therefore time was wasted. In hindsight there was no real structure to the development of the product it was more about what feature it was missing or what one would expect an e-commerce site to be capable of. The distinct lack of scheduling and planning is particularly evident when examining the product’s API. Within the API there are many files which are no longer used and are clearly predecessors of other files, these files are the result of such poor planning. Some are merely the result of the evolution of ideas with available technology whereas a regretfully large portion were unnecessary (by unnecessary I mean that they in no way attributed to the current state of the project) and arguably a waste of time.

Luckily conversations with Rich Boakes provided some ideas and features for higher functionality especially when it came to incorporating and involving the user more in the inner working of the sites’ functions. The main feature to come out of these conversations is the drag and drop functionality that I have previously mentioned. It was added in not only an attempt to make my own product stand out compared to the products of fellow students but to also improve the general usability of the site and of tasks that most users would find grating over time. Through the use of drag and drop I had hoped that users (or admins in this instance) would fine the tasks more tolerable for example if there were adding numerous products to the system they would waste a great deal of time trying to manually find the image file for each product, by enabling the user to drag and drop the image file directly onto the page it should reduce task time and make the task itself more tolerable.

# Lessons Learnt

The primary lesson learnt is to have a set schedule and adhere to it from the beginning of the project. This has been the primary cause of issues throughout the design and build process and would have drastically reduced build time. The lack of planning itself caused many ideas to be revisited at later dates wasting time. In all honestly I have very little in terms of how to go about the project through most of the process and therefore if I were to attempt a project similar to this again I would ensure that I knew exactly how to undertake the project (for example the task order and how to achieve the said task in the most efficient way so it does not need to be re-attempted) in order to maximise efficiency through the entire process. If anyone was to attempt a project similar to this one I would highly recommend that these lessons are taken to heart as I feel they would drastically improve speed of the development process for anyone who is ensure where to start thereby allowing more time for tasks such as higher functionality or report writing at the end.