Goals of the project

* What you are planning to achieve in the project?
* Who are the key users?
* What is the main functionality?

Feasibility of project

* How feasible is the project within the given timeframe?
* Identify any risks,
* discuss contingency plans, etc.

Analyse requirements

• Create a use case model and provide the relevant use case descriptions

• Prioritise requirements

• Set iteration goals for each iteration of the prototype

Class diagram

• Create a class diagram for the proposed system

• Include attributes and operations

Project Plan and User Requirements

Goals of the project

Assessing Functionality

The functionality of our e-commerce site has been broken down into three segments: primary, secondary and tertiary. These allow us to prioritise what is needed for our website to be functional before we begin adding additional functionality. The primary segment is concerned with the essentials needed to be considered an e-commerce website. The functions within the secondary segment are deemed important however not critical to our initial design, we will aim to get these implemented by the second iteration. Finally, the last segment is the tertiary elements, these are features we would like to add in our final iteration however they are not deemed as essential and will only be added once the core functionality is in place.

Primarily we will focus on the user’s basic ability to use their account. They will be able to login or out if they have a pre-existing account, if they do not, they will be able to register for one by adding in their information. Furthermore, we are also aiming to have multiple users able to sign in including a Customer, Admin and Manager. The different users will all require different privileges to ensure functionality and security. For us to have an effective e-commerce website we will need a basket and were products can be saved including a payment system to allow Customers and Guests to pay for our products, we will use Stripe’s Payment API to achieve this. The website will also save each user’s orders so that a privileged user can view all orders on the system and a signed in customer can review orders they have previously made. For our users to be able to purchase the products on the website we will require a way of searching and filtering for products, as well as being able to see if they are still in stock. These stock levels should also be able to be edited by certain privileged users as well as the ability to add and remove products.

For our secondary features we will aim to implement additional costs to purchases including VAT and delivery costs. For the delivery we would like to have a calculator that we produce the cost and estimated time of delivery based on the distance from the user’s location to their nearest depot and the delivery type they select. Furthermore, we would want the implementation of multiple currencies to be more inclusive to worldwide users. Additionally, we will add discount codes to reduce prices and a paid subscription-based service that could reduce delivery costs and increase estimated delivery times. To continue we will include additions of a flag that will appear on certain items that are low on stock when a user views them advising them to purchase before they disappear. Also, the addition of multiple sizes and colours within the same product will allow our website to fit better with the real-world examples we have researched. A feature where signed in Customers can place reviews will also need to be implemented so they can rank the product out of 5 starts and write a short comment if desired.

The final features we would like to see on the website would be the addition of receipts that could be generated on a text document for each individual order made including a breakdown of fees and products that were purchased. The expansion of the delivery system would be ideal including the ability to automatically send emails when the delivery is on its way and when it has arrived. Furthermore, we would like the ability for the admin to generate reports based on best and worst selling products and which countries receive the most orders. This would allow us to send discount codes to users in specific countries to try and increase sales in their region. Additionally, emails could be sent to users who have opted in on our paid subscription service to give the exclusive access to deals or to be notified when new products are being released. Finally, we aim to improve the images on our website this would include the ability to have a carousel on the images as well as zooming in by hovering over sections of the image.

Feasibility of the project

Risk Assessment

A vital step that is needed to be taken to avoid failing to complete this project within the given timeframe is the identification of risks. By identifying risks that could potentially harm our ability to progress we can also suggest ways of overcoming these and be more prepared to combat these issues when they arise.

One key risk we have identified that could cause issues with our progress is that of trying to implement too many features. The issue that arises from this is that we could lose focus on the overall project and may end up prioritising non-essential features over critical ones. Another major risk that may arise is underestimating the amount of time we have to complete each iteration. Ultimately this could result in us missing deadlines and therefore being unable to fully complete the website in the time frame we have been given. The reliance our project has on third-party applications could also contribute to another potential risk. While third-party applications allow us to use pre-written code therefore making us able to focus on other areas of the website it does, however, make us reliant on factors outside of our control. Due to our inability to completely control the applications we could end up with integration issues that may affect the project. It is also important to make sure that as a team we can rely on each other to complete our given tasks so as not to hinder the development of our project but also the overall functionality of the website. In the rare event that a member of the group is unable to complete any specific task whether it be to personal circumstance or in the event they are struggling with a task, it is important that the other members of the group can step in an assist when necessary. As a group we must also recognize how important backing up our work is. It would be disastrous to our project

If we were to somehow not save a rendition of our website or in the rare case that a machine would fail on us.