This requirement specification will cover the details of our proposed solution for creating a system to collect virtual stamps for finding sculptures. The document will be structured as follows. An introductory section containing a brief overview of the proposed system and why it is needed, a summary of the project scope, and a more detailed description of the full system with comparisons to existing systems. The majority of the document will be taken up by the functional and non-functional requirements as well as the risks associated with said requirements. The document will conclude with a summary of the team’s developmental approach and a proposed schedule for the production of the system.

* 1. Overview and justification:

The proposed system is an extension to the client’s pre-existing website built on the Squarespace platform. We will be producing a new page on the website that will allow for users to submit photos of sculptures found on various trails in the Teesside area and earn stamps corresponding to each sculpture. These stamps will then be viewable on that user’s virtual passport. It will also be possible to download information about the trails that the sculptures are found on from the website. The purpose of this system is to provide an incentive for people in the north east to explore country trails and walks that are otherwise underused by the community. The passport system will be used to promote the opening of the sculpture trails as well as provide a form of entertainment and sense of accomplishment while exploring the trails e.g. if children are walking the trails with parents the passport system could be used as a challenge. This benefits the local communities as by giving people the incentive to use the trails we are promoting a healthier lifestyle. The links on the webpage to download details of the trails will be used to distribute further information about the area surrounding the trails as well as information about the artists who constructed the various sculptures and what their inspirations were. This will benefit the artists as it will provide recognition for the work that they have carried out producing the various sculptures.

* 1. Project Scope

Our project is targeted at a wide audience consisting of mainly people located in the North-East of England as they will be nearest the sculpture trails making it convenient for them to use the system. The system will also be used by employees of River Tees Rediscovered as they will be able to modify the content served by the system, therefore we aim to make this process as smooth and simple as possible so that it can be well integrated with the existing website easily.

To produce the system, we will be working in a team of 5 people and regularly communicating with our client to ensure that we are working towards the product that they envisaged. As far as the scope of development is concerned we are mainly focusing on producing a well put together front-end webpage(s) that will serve content to the userbase. The content that we will be serving has been produced independently of us by other third-party groups, this includes the art assets for the webpage e.g. the stamp designs and trail maps and information. The backend of the system is not within the scope of the project as the system will be hosted on an existing squarespace website therefore it is not possible to have a custom backend for our specific webpage(s) this also means that the user login system is already managed by squarespace meaning that within the bounds of this project we will only need to interact with the backend in this instance. We may possibly have to implement a system by which a moderator is required to check uploaded photos to make sure that they are of the sculptures that users claim to have seen to ensure that they get their stamps correctly. However, there is the possibility that the sculptures will have QR codes associated with them which will greatly reduce the amount of work needed to produce a system to validate pictures of sculptures. Development time for the front-end webpage(s) should only take a matter of weeks as they should all be very similar e.g. a page for each sculpture containing a download link for the associated trail information and sculpture information and a picture. Since each page is very similar, once a well thought out design is agreed upon for one of the pages it should be very easy to re-use this design across the other pages. Development time for the user login and passport system will probably stretch into a development time of 2-3 months due to having to create a safe and secure way of interacting with the existing squarespace login system as well as allowing users to upload their own photos of the sculptures. Development time for the validation system for uploaded sculptures could range anywhere from a week to 2-3 months depending on whether or not the availability of QR codes or someone to moderate the website is confirmed since if neither of these are confirmed we will have to develop our own image matching library or find an existing image matching library that fits the needs of our system and that is licensed in a way that we can work with. We are aiming to have a video demo of a single front end webpage with a placeholder login system by [insert schedule date here], this is so that early on in our project we can ensure that our vision of the finished product is aligned with the client’s. With a second more functional prototype finished by [insert schedule date here]. Along with these prototypes we will ensure to inform our client of any new features as and when they are developed to ensure that early on in each features development we can ensure that they suit the client’s and userbases needs and aren’t unnecessary or not fit for purpose. As it is very important that while developing the system that we keep only essential functionality as many of the userbase will be less confident with technology so the webpage(s) must be easy to use and navigate for any audience. Along with the system we will also be producing a manual for the system which will be as clear and concise as possible to ensure that it is not tedious or too complicated to add new functionality to the system or change existing functionality of the system after we have handed it off to our client. Outside the scope of this project, but perhaps desirable features that could be added in future versions would be the ability to share your stamp passport on social media or another method. The ability to view a 3d model of the sculpture from the passport webpage after earning the stamp would also be a desirable feature. However, this would either require an experienced digital artist or animator to create and render these models or some kind of 3d imaging software to scan the existing sculptures and render them as 3d models, both of these options are well beyond the scope of our knowledge and experience as developers.

* 1. System Description