Software quality is an extremely important principle whose processes must be applied at many stages in the software development life cycle, and the maintenance stage is no different. Software quality can be defined as “the degree to which a set of inherent characteristics fulfils requirements” [1]. Thus, software maintenance, which involves the changing or evolution of the software product after delivery and the surfacing of new user requirements, must also meet these quality standards to ensure these new requirements are met fully. An existing organisation can improve their software quality approach by improving quality management processes and properly evaluating the cost of quality for their new additions to their website.

The software quality management (SQM) process defines ‘processes, process owners, and requirements for those processes, measurements of the process and its outputs, and feedback channels. ‘(Art93) [1]. The SQM processes don’t carry out the testing, themselves, but rather are used to ensure the quality measures planned to be employed are of the standard needed to uphold the requirements, and if the plans to implement them match how they are actually implemented. The SQM processes include the quality assurance process, verification process, validation process, review process and audit process. While these processes may be implemented to some extent by the organisation currently, there is always room for improvement.

The first SQM process which would need to be implemented or improved would be the software quality assurance process. This process includes the creation of a plan which details the quality requirements and the specific techniques that will used to achieve these. This document must contain great detail about the costs and resources required, the schedule the measures will operate on, and the overall management objectives. In regards to the organisations maintenance situation, they must create a detailed quality requirements list for future updates to the site as well as the processes they will implement to meet these requirements. This must be done in order to ensure the product satisfies the user’s requirements and is the pinnacle of quality possible within the given constraints.

Secondly, the verification and validation (V&V) process would need to be improved. These include activities which ‘addresses the software product quality directly and uses testing techniques which can locate defects so that they can be addressed. ‘ [2]. They are methods to ensure the software product meets the requirements created (verification) and checks to see whether the product built to match these requirements actually fulfils its intended purpose (validation). The V&V document that the organisation must produce should be created in the early stages of the build of the next website update. It must contain the specific activities needed to carry out the verification and validation as well as the techniques and tools used to do so.