**Tracking and Control Mechanisms**

**6.1 Quality assurance and control**

This Software Quality Assurance plan (SQA) will outline the processes, methodologies, standards, and procedures to assure timely and quality delivery of the software required for the Pharmacy system project.

**Standards:**

* Write-ability
* Read-ability

**Reviews:**

* Communication plan
* Software documentation
* Estimate review
* Traceability review
* Design review
* Code review
* Test plan review
* Test cases review

**Testing:**

* Unit testing
* Integration testing
* System testing
* Acceptance testing

**Error/defect collection and analysis:**

* Types of data
* Types of defects

**Change management:**

* Process method
* Change handling

**Safety:**

* Environment

**Security management:**

* Access to artifacts

**Deviations**

**Noncompliance documentation**

**6.2 Change Management and control**

Communication of changes and how they will be handled will be accomplished through both Slack and GitHub.

**Source code:**

* Slack will be used as the informal method of communicating a change. On Slack a team member will notify the others of a change to a file and inform them of any pull request review.
* GitHub includes a functionality that allows for a brief description of the changes made to the file when attempting to commit to the master. Team members will be required to write an adequate and general overview of what changes have been made to the file when requesting a pull request review of a file. Doing so will allow for fluid traceability of any bugs that may arise through the change.
* Merge-ability of pulled requests can be accomplished through protected branches. Protected branches will ensure that no irrevocable changes will be made to the master branch without the having both administrators review the request along with other team members not involved in the file changes. Administrators will submit detailed reviews with a unanimous team decision to either approve, defer or reject pull requests. Administrators must ensure that all branches that are created are protected branches.

**Non-source code(documents):**

* For documents such as, but not limited to, the Software Project Management Plan (SPMP), communication of a change will also be accomplished through Slack and GitHub.
* On Slack, a team member will inform the others of a changed or added document to the GitHub repository. These documents will not require review by the other team members and can be uploaded directly to the master.

**6.3 Tools**

Tools for control access and versioning of artifacts will be GitHub.

**Source code:**

* Versions of the source code will be found on the GitHub repository through “branches”. Changes are proposed in a branch to avoid overwriting in the master branch. The master branch will be the baseline and will only contain finished and approved work.
* The team leader will have admin access to the repository. With the exception of one team member who will also have admin access, all other team members will have read and write access to the repository.
* Administrators are able to check each other’s

**Non-Source Code(documents):**

* To differentiate versions of the documents on GitHub, an underscore “\_” in the document name will indicate the document is still in progress, a document name without underscores “\_” will indicate that that is the final version of the document.