1. **Introduction** 
   1. **Purpose**

We want to build a Code Management and Version Control System, based on the concept of Git. This product, is inspired by the platform of Github, and will be having the necessary features to meet user requirements.

* 1. **Intended Audience**

This product will be targeting any person, who has a document, and wishes to use version control, to efficiently make & save changes while working. The code management aspect is targeting users, who are using this platform, to make changes to a code based file. The users can be anyone from a school or university students, to professional working software developers.

* 1. **Product Scope**

This product will be primarily focusing on 5 features for Version Control and Code Management, which are:

**Push, Pull, Commit, Staging and Checkout**

These features encompass all necessary requirements for making a good version control system, which can provide code management for our users. The product will be inspired by the current popular version control system of Github.

* 1. **References**

Our Product is using concepts of version control tool: Git and Github

1. **Overall Description** 
   1. **Product Perspective**

This Product is inspired by the popular version control tool Git. We hope to emulate the functionality aspects of Git & Github, to make a good Code Management & Version Control System. We will also aim to understand how Github works, in this process

* 1. **Product Functions**
* **Staging:** This is done to confirm which changes in document have to be committed
* **Commit:** This operation stores the staged changes in the git file
* **Push:** This operation uploads the git directory from local system to hosted environment
* **Pull:** This operation retrieves the git directory from hosted environment to the local system
* **Checkout:** This operation is used to revert to a specified commit
  1. **User Classes and Characteristics**
* **Technically Able Users:** All Students, Professionals or Developers who are acquainted with using the command line, will be served with command line functions and syntaxes
* **Non-Technical Users:** Users who are not acquainted with the command line tool, will be served with a Graphical User Interface (However, we will not be making this GUI in our scope)
  1. **Operating Environment**

This product is compatible with both Windows and Linux Based Operating System Types. The user can access this from his/her own computing environment, and only needs to install the Git Tool, which is open source software. No specific Hardware requirements needed to execute.

* 1. **Design and Implementation Constraints**
* The push and pull operations require an internet connection
* In the hosted environment, the amount of storage for the documents is dependent on the server
* User Privacy in terms of data must be maintained
* If hosted environment is not used, then the life of the data is solely dependent on the local system of the user
  1. **Assumptions and Dependencies**
* We assume that the user knows how to operate the Git Tool Functionality
* We are depending on the Git Tool and its functions