

# Project Proposal

## IVS( IITG versioning System)

### Introduction:

IVS is a new versioning system, similar to git. We are designing a versioning system, repository hosting service as well as a secure transfer protocol. The end product aims at providing code hosting internal to IITG for proprietary research code. The facility for discussions and code review is also provided.

### Proposed Features:

1. **Versioning system** - Record changes to a file or set of files so that you can recall specific versions later.
2. **Repository Hosting** - A server to host repository on a remote repository. User can view his repositories and public repositories of others.
3. **Transfer Protocol** - A secure transfer protocol for transferring code from local repository to global repository.
4. **Staging** - Tracking all files that will go in the next commit. Individual and collective staging are supported.
5. **Commits** - To save the states of project. User can revert back to a past state of his project.
6. **Diff** - Get code difference between different commits.
7. **Tags** - For naming a particular commit. Mostly used for marking a release.
8. **Fork** - Creating a personal copy of someone else's public repository.
9. Discussions and code reviews.

### Work Division:

1. Vibhanshu (120123049) - Staging, commit, tags.
2. Kunal Khandelwal (120101037) - Diff, fork, discussion and code review.
3. Shubham Shukla (120101068) - repository hosting, transfer protocol.

### References:

1. <https://about.gitlab.com>
2. <https://github.com/git/git>