# **CENTRALIZED VERSION CONTROL SYSTEM USING JAVA**

#### **Team Members:**

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## Synopsis:

We plan to build a centralized version control software that is capable of tracking and managing changes to software. Version control systems help development teams work faster and better. They are useful in DevOps environments as they enable continuous deployments. Version Control helps track changes made to each file in an incremental manner and allows rollback to previous working versions.

#### Features of VCS:

Cata	nes of <b>ves</b> .
	] Long Term Change History of each File : The user will be able to track commits made to
	each file and be able to access the changes made.
	Tracking and Making Commits to Code: Make changes to code and commit them to the
	codebase.
	Branching code: A different version of the codebase can be created using a branch to make temporary changes to the code.
	Merging code: Once the code changes have been made and confirmed in a branch, the
	branch can be merged back into the main branch. We will also be taking care of merge conflicts.
	Revert to Versions in History : Rollback to previous versions in case of any code issues.
	Star-ing a repository: Marking interesting or relevant repositories to commit to.
	Repository Visibility : It may be public or private.
Гурез	s of Users:
	Admin
	] Developer
Геntа	tive Tech Stack:
	] Java
	] Java DB
	Command Line Interface (CLI)

### **CLASS DIAGRAM:**

User

username: String name: String
Number of Repositories: Int Followers: Int Following: Int Starred Repositories: Int location: String

editProfile(name, location) : void updateFollowers(newCount): void updateFollowing(newCount): void updateRepositories(newCount): void updateStarred(newCount): void

ReadMe

Name: String Lines: Int

addReadMe(): void updateReadMe(): void

Visibility

Public Private

Repository

Name: String Visibility: Enumeration

> mergeFile() branchFile() checkHistory()

Java

- + attribute1:type = defaultValue + attribute2:type - attribute3:type
- + operation1(params):returnType - operation2(params) - operation3()

TextFile

- + attribute1:type = defaultValue
  - + attribute2:type attribute3:type

operation1(params):returnType - operation2(params) - operation3()

Png

- + attribute1:type = defaultValue + attribute2:type attribute3:type
- + operation1(params):returnType - operation2(params) - operation3()

Admin

- + attribute1:type = defaultValue + attribute2:type - attribute3:type
- + operation1(params):returnType - operation2(params)
  - operation3()

#### **Division of Work:**

2 classes per team member

Aanchal Narendran	Admin , User
Ananya Uppal	Repository , ReadMe
Anisha Ghosh	TextFilem , PNG , Java