



Technical Talk on Git & Github

e-Yantra Team

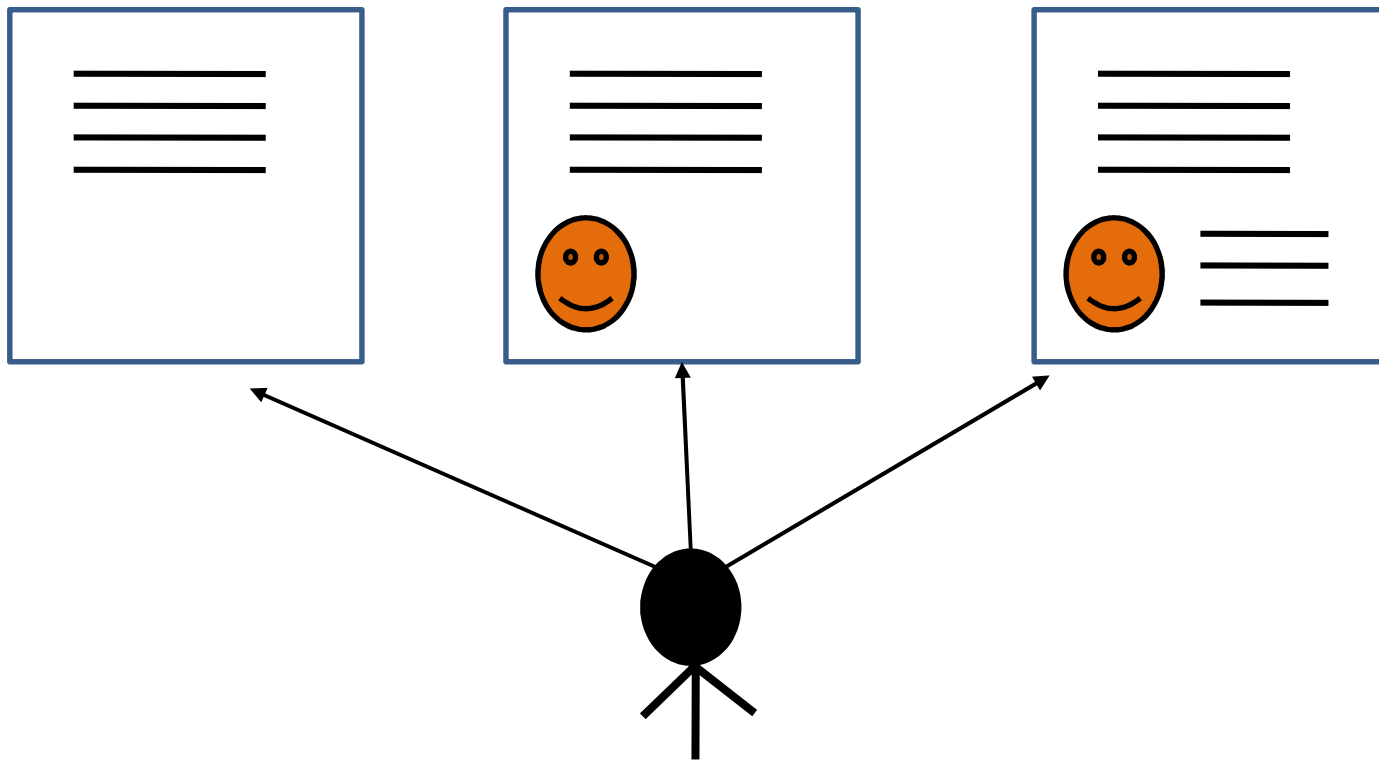
10th June, 2014

Why Version Control is Required

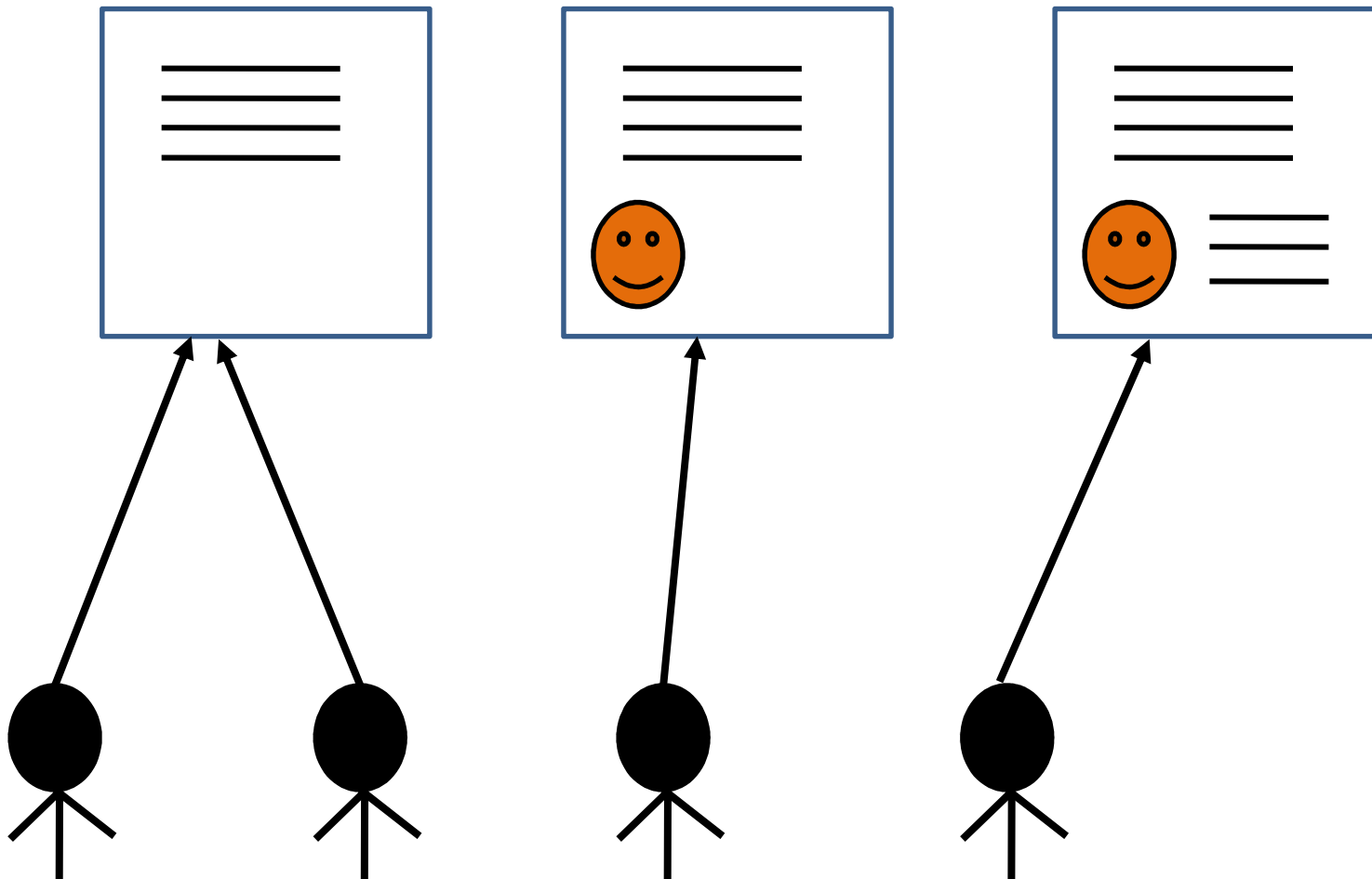
- **Reversibility:** the ability to back up to a previous state, if you discover that some modification you did was a mistake or a bad idea.
- **Concurrency:** the ability to have many people modifying the same collection of files, knowing that conflicting modifications can be detected and resolved.

Version Control

- Version Control – Keeping track of changes made in file



Collaborative Work



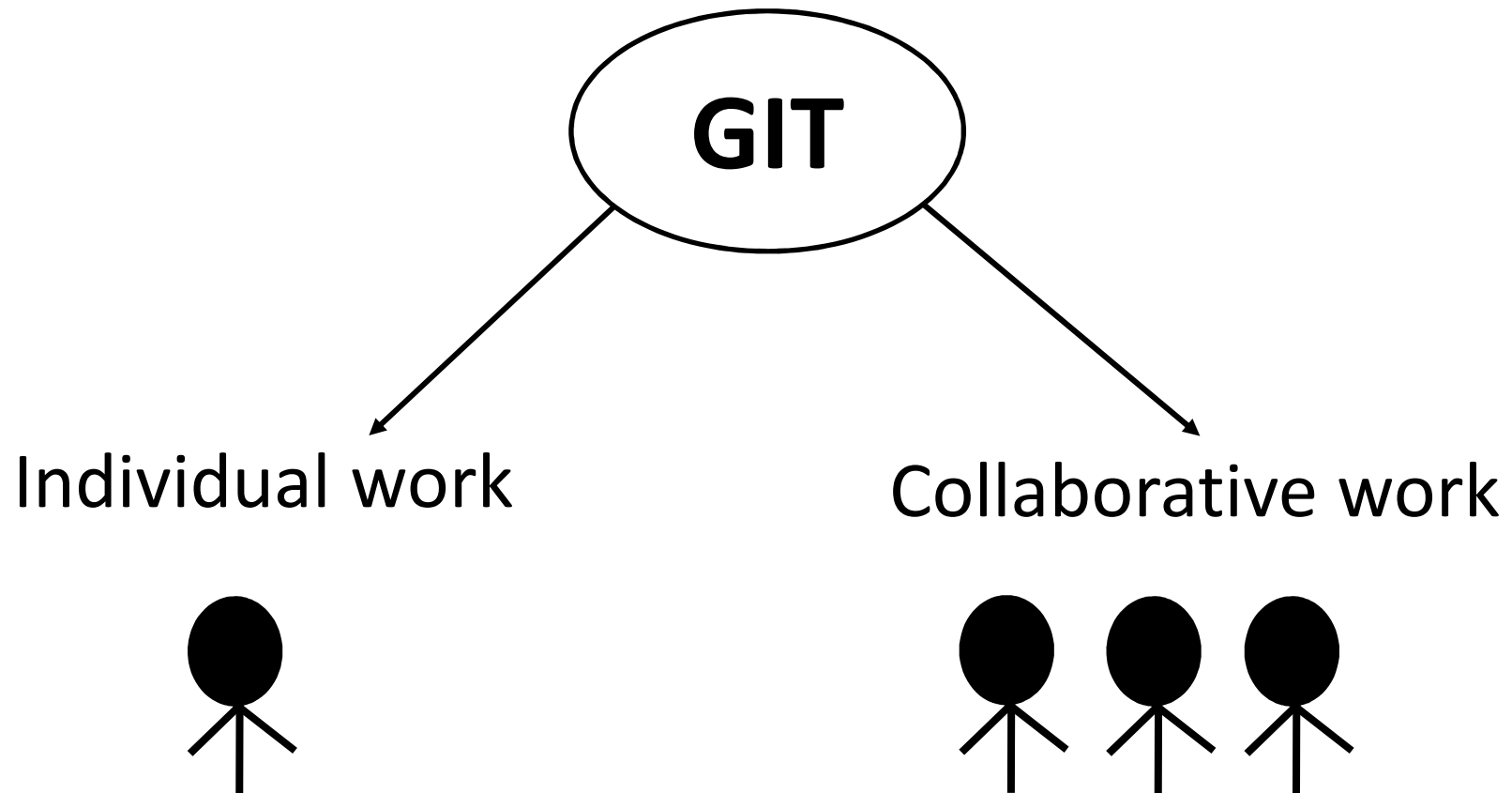
Tools for Version Control

- Free
 - SVN or SubVersion
 - Vesta
 - Git
 - Bazaar
 - Mercurial
- Proprietary
 - PVCS
 - Perforce
 - BitKeeper
 - Code Co-op

Web-hosting facilities

- Github
- Bitbucket
- SourceForge
- Google Code
- GNU Savannah

What can Git do?



Individual Working

- Starting git in local repository
 - `git init`
- Adding file in repository and tracking modifications
 - `git add .`
 - `git status`
- Commit files
 - `git commit -m "message for version tracking"`
- Saving file on remote server – a webhosting facility
 - `git remote add origin`
`https://github.com/username/reponame.git`
 - `Git push -u origin master`

Collaborative Working

- On web-hosting facility
 - fork
- Clone files on local system
 - `git clone https://github.com/username/reponame.git`
- Make changes and use commands as in individual working
- Send pull request
- Create separate branch to work
 - `git branch branchname`
 - `Git checkout branchname`

Keywords - Git

- Repository
- Staged
- Track
- Add
- Commit
- Remote
- Push
- Fork
- Clone
- Pull
- Status
- Merge
- Branch
- checkout

Suggested Reading

1. <http://git-scm.com/book>
2. <http://try.github.com/>