**Assignment 2**

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Ans. 1 Advantages:

1. Git allows distributed model where you can let others see only what is necessary and also lets you work offline as well.
2. It allows you branching and merging of your workflow on very fast pace and consume very little space.
3. It provide flexible workflow, centralized as well as hierarchical you can choose that fits you better.

Ans. 2 Git is binding for many laguages like C, Pythin, Ruby, Perl etc.

Ans. 3 Index: it is used as a staging area between your working directory and your repository. It is a file that stores information about what will go into your next commit.

Ans. 4 1. Use + drop down menu and select **New repository.**

2. Provide a name to your repo. And you can also add description.

3. then choose the privacy setting whether you want your repo private or public.

4. Initialize your Repo. With a README file.

5. The Click **Create repository.**

Ans. 5 Head is a reference to the last commit in the currently check-out branch. By default there is a head in each repo. A repo. Can contain any number of head.

Ans. 6 Branches are a pointer to a snapshot of your changes. In real world projects there are always multiple different context happens like feature, bugfix, experiment etc. in order to snapshot these different contexts and keep them separated from each other we need branches. And also helps with parallel workflow too for example if you are preparing 2 new variations of your website’s design and parallelly you are fixing bugs as well.

Ans. 7 $ git branch <branch\_name>

Ans. 8 In git, merge conflict usually occurs when your current branch and the branch you want to merge into the current branch have diverged. That is, you have commits in your current branch which are not in the other branch.

Ans. 9 To resolve merge conflict first head to the repo where merge conflict occurred and then generate a list of files affected by the merge conflict. Then open a text editor and head to the file that has merge conflicts. To see the beginning of the merge conflict in your file search for conflict marker. Then decide if you want to keep the branch’s changes, keep only other beanch’s changes or make a brand new change which may incorporate changes and from both branches. Delete the conlfit markers and make the changes you want in the final merge. Add your changes. Then commit your changes with a comment.

Ans. 10 git config command is a function that is used to set git configuration values on a global or local project level.

Ans. 11 Fork is a copy of a repository. Forking a repo allows you to freely experiment with changes without affecting the original project.

Ans. 12 A Branch of GitHub repo can be local to your pc or remote in GitHub. If you want to work on a specific feature on a repo, you branch put separately and work on it. And a Fork is a Github to GitHub operation. When you fork a repo it’s a clone of the entire repo within GitHub with all of its branches. Where Clone is used to create a copy of a local or a remote repository.

Ans. 13 A branch is just a separate version of a repo. And Pull request is when someone take the repo, makes their own branch does some changes and then merge that branch in.

Ans. 14 git fetch just downloads the changes from the remote to your local repo. And git pull downloads the changes and merge them into your current branch.

Ans. 15 git revert <commit hash>

Ans. 16 the main advantage of forking is allowing a gatekeeper workflow, where untrusted people can work on a feature and a trusted gatekeeper pulls it in after a view. That model on a feature is not very popular within a company because employees are generally considered trusted.

Ans. 17 Index is a file where commits are prepared. Work tree allows you to have multiple working directories associated with a one git repo. A head is a reference to the last commit in the currently check-out branch.

Ans. 18 git branch –merged master

Ans. 19 git clone is used to target an existing repo and create a clone or copy of it.

Ans. 20 git stash temporarily shelves changes you have made to your working copy so you can work on something else and then come back and re-apply them later on.

Ans. 21 you can use git stash when you discover you forgot something in last commit and have already started working on the next one in the same branch.

Ans, 22 git stash drop is used when you want to remove something from the stash.

Ans. 23 git stash drop is used when you want to save something from the stash.

Ans 24. README.MD is a file along with repo license contribute guidelines and a code of conduct that helps you communicate expectations for and manage contributions to your project. MD is stands for .MARKDOWN file.

Ans. 25 git init

Ans. 26 it lets you navigate between the branches.

Ans. 27 git fetch

Ans. 28 git rm is a command that operates on two of the primary git internal state management trees the working directory and staging index. It is used to remove a file from repo.

Ans. 29 git stash apply is used to leave the files in the stash list.

Ans. 30 git log is used to see the running records of commits

Ans. 31 git add . is used to add all modified and new files in the current directory and all subdirectories to the staging area.

Ans. 32 git diff is a multi use command that when executed runs a diff function on git data source which can be commits, branches, files, etc.

Ans. 33 git status displays the state of the working directory and the staging area.

Ans. 34 No you have to create individually.

Ans. 35 git branch -d branch\_name

Ans. 36 git rebase is the another way to do it.

Ans. 37 git rm –cached file\_name

Ans. 38 rebase is maintain the history of commits because it transfers the completed work from one branch to another.

Ans. 39 A repository is just a file location where you are storing all the files related to your project.

Ans. 40 git commit -m

Ans. 41commit object contains the references to another tree object and some other information like author, committer, etc.

Ans. 42

Ans. 43 Apache Subversion, Trac, Fossil. Mercurial

Ans. 44 Gist is a git repository which can be forked and cloned.

Ans. 45 Gist an upper ontology in information science which is pastebin service operated by GitHub. Gist stands for Graphics software.

Ans. 46 GitLab, BitBucket