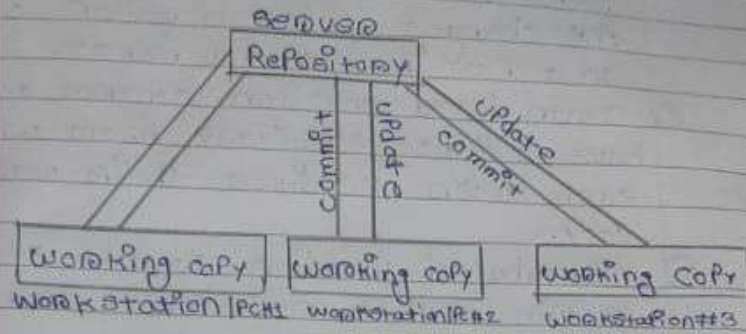Assignment 1.

1. what is Git.

⇒ Git is a version control system for tracking changes in computer files and is used to help co-ordinate work among several people on a project while tracking progress over time. in other word, it's a tool that facilitates source code management in software development. Git favours both programmer and non-technical users by keeping track of their project files. It enable multiple users to work together and handles large project efficiently.

2. what do you understand by the term 'version' control system' ?

⇒ In order to invoke a special version later, if necessary, a version control system (VCS) keeps track of all the changes made to a file of group of data.

. This make sure that everyone in team is using the most recent version of file.

Centralized version control
system

```
                    Server
                 Repository
                  |  |  |
          Commit  | Update   Update
                  | Update   Commit
                  |  |  |
 ┌──────────────┐ ┌──────────────┐ ┌──────────────┐
 │ working copy │ │ working copy │ │ working copy │
 └──────────────┘ └──────────────┘ └──────────────┘
 workstation|PC#1  workstation|PC#2  workstation#3
```

3. What is GitHub?

⇒ GitHub uses Git to offer internet
   hosting for version control and software
   development.

4. Mention some popular git hosting
   services

⇒ ① GitHub
   ② SourceForge
   ③ GitLab
   ④ Bitbucket.

5. Different types of version control systems.

⇒ ① Local version control system have a database thats stores all file changes under revision control on a disc in a special format.

② Centralised version control systems have a single repository, from which each user receives their working copy.

③ Distributed version control systems contain multiple repositor's, and different users can access each one with their working copy.

6. what benefits come with using GIT?

⇒① Data replication and redundancy are both possible.

② It is a service with high availability

③ There can only be one Git directory per repository

④ Excellent network and disk performance are archeived.

⑤ on any project, collabration is very simple.

7. What is Git repository

⇒ The term "Git repository" describes the location where all Git files are kept. Either the local repository or the remote repository may be used to store these files.

8. How can you initialize a repository in Git?

⇒ The git init command be used to initialise an empty repository to a directory in Git. Following this command a hidden git folder will became visible.