**ITU SWE 525 Version Control : Question Bank for Inclass MidTerm:**

1.Follow the instructions here (https://github.com) to create a Github account. Write your Github account name in your homework submission.

**Github account name : archiullal**

2.Clone the Angular project onto your computer. Make a screenshot of the git command you entered to do this and the result, and include it in your response. Link to Angular Project <https://github.com/angular/angular>

**mkdir midterm**

**cd midterm**

**git init**

**git clone** <https://github.com/angular/angular>

3.Use your local Angular repo to find the commit made at Mon Dec 14 20:02:40 2015 (depending on how you do it, you might find Tue Jan 12 12:10:42 2016 instead). Who is the author? What are the commit's short hash and one-line description?

**ls you will find angular**

**git log –p -1**

Answer the following questions:

1.Who is the creator of git? What license does git use?

* **Creator of git is Linus Torvalds**
* **Git is** [**free software**](https://en.wikipedia.org/wiki/Free_software) **distributed under the terms of the** [**GNU General Public License**](https://en.wikipedia.org/wiki/GNU_General_Public_License) **version 2.**

2.Are git and Github different things?

**GIT**

* Git is a version control system, a tool to manage your source code history.
* Git is a tool

**GitHub**,

* It is a web page on which we can publish our Git repositories and collaborate with other people.
* GitHub the service for projects that use Git

3.Explain what a commit in git represents.

Git commit Record changes to the repository. It saves the changes in remote repository along with log message and creates commit hash to track the changes.

4.What is the difference between a CVCS and a DVCS?

**CVCS – Centralized Version Control System**

* Centralized version control systems are based on the idea that there is a single “central” copy of your project somewhere (probably on a server), and programmers will “commit” their changes to this central copy.
* Committing” a change simply means recording the change in the central system. Other programmers can then see this change. They can also pull down the change, and the version control tool will automatically update the contents of any files that were changed.
* Most modern version control systems deal with “changesets,” which simply are a groups of changes (possibly to many files) that should be treated as a cohesive whole

**DVCS- Distributed Version Control System**

* DVCS do not necessarily rely on a central server to store all the versions of a project’s files. Instead, every developer “clones” a copy of a repository and has the full history of the project on their own hard drive. This copy (or “clone”) has all of the metadata of the original.
* Performing actions other than pushing and pulling change sets is extremely fast in DVCS, because the tool only needs to access the hard drive, not a remote server.
* Committing new changesets can be done locally without anyone else seeing them. Once you have a group of changesets ready, you can push all of them at once.
* Everything but pushing and pulling can be done without an Internet connection. So you can work on a plane, and you won’t be forced to commit several bug fixes as one big changeset.
* Since each programmer has a full copy of the project repository, they can share changes with one or two other people at a time if they want to get some feedback before showing the changes to everyone.