Module D.1

**Level 4**

1. Research about Version Control Systems (VCS) for software development and list at least 4 main features of a VCS.

The Version Control Systems are software tools that would help a software team make changes to source code over time. In VCS there is software that would track every modification that you did to the code and be saved in a data base. Now, if you made a mistake, you can look back at the old code which can help you fix the mistake. Another thing that Version Control would do is that it would protect source code from something bad happening to it and this is good because source code is a repository for developers. Also, version control can help people solve problems such as tracking the changes that each person would make and prevent work conflicting with other work. Something else is that version control would work on any operating system which is good for developers because they can use version control on the operating system that they would prefer.

1. Explain why professional software developers use a VCS and why it would be helpful in this course.  
   Professional software developers would use a VCS because it is risky to develop stuff without VCS. Version control would allow developers to work faster and be more efficient. Version Control Systems would be useful in this course because it would allow us to be able to track all our work. Also, if we made a mistake in code we would be able to look at the old code that was made and try to fix the mistake.
2. Explain the term “Collaboration” and how GitHub will allow you to collaborate with your teacher and other members of your work group.  
   The term “Collaboration” would mean that you are working with someone or a group of people. GitHub would allow, you to make a repository and, in the repository, it would allow to view work that is upload on it. For example, if you have a group of people working on something, a repository would allow them to view the work and make changes to it.
3. Explain the term “Backup” and how GitHub will help you to backup your work files.  
   The term “Backup” would mean you are saving an original copy of your files so, if some of your files gets corrupted or deleted, you would have another copy of the files to use. The way that GitHub can help backup your files is that in GitHub you can clone your repository, and this would allow you to have all your files saved.
4. Explain the term “Version Control” and how GitHub version control will be useful in this course.  
   The term “Version Control” would be how it would keep the history of your files and keeping the files safe. GitHub’s version control will be useful in this course because when we would upload our files on GitHub, we would want to make sure that the files that we upload would be safe and easy to access. For example, in GitHub it would tell you the last thing you did in your repository which can be that you uploaded a file, deleted a file or anything else that you did.
5. Explain the term “Distributed Access” and how GitHub distributed access will be useful in this course.

The term “Distributed Access” would be how you would access information from something. In GitHub it would be useful in this course because GitHub would allow you to access information from different repositories, but the repository must be public and not private. Since there are repositories that are public this would allow people to look at other people repositories for information that they would want.