**ISD lab sheet week 1**

Create your logbook document, based on the template provided.

Start your logbook by answering the following questions:

Answer the following questions (in writing) to reflect on the contents of the lecture today. You can use the lecture slides as well as any source you find online, however, if you use an online source, please briefly mention it in your answer (like “as seen on <https://www.python.org/>”).

Elaborate in your answers where you are asked to explain something. Your answers will be part of your logbook (once we have set it up) and therefore please store your answer document (preferable .doc or .docx) on your UWL cloud storage (see lecture slides) or wherever convenient for you.

Your answer document should be at least a page long. You can write more but also keep your answers concise.

Questions:

1. What is a code repository (often also called version control system) used for?

A source **code repository** is a file archive and web hosting facility where a large amount of source **code**, for software or for web pages, is kept, either publicly or privately.

1. Why is it advantageous to use a code repository?

It is helping open –source software projects and other multi –developer projects to handle various versions . they help developers submit patches of code in an organized fashion. Make our data safe and easy to access .

1. Describe the different “layers” of Software that exist on a typical computer and explain why there are different layers of software.

In the computer is consists of hardware and software. the work must be done between these two parts. for example when we want to print something. we need to use a suitable software like word (software) after we type everything we should use anther software, who is responsible to connect between the world and the printer (hardware). This software called “printer definition “ it is already should be downloaded on our windows software . this “printer definition “ has got the all information about our printer . in widows software we can download many application (programs) like MS office – games- graphic----- but all of them must be accept a windows as software leader (operating system)

1. Describe what an algorithm is and explain why it is a useful “tool” to translate from a human level problem (we can think of) to a computer program.

An algorithm is a detailed series of instructions for carrying out an operation or solving a problem.  In a non-technical approach, we use algorithms in everyday tasks, such as a recipe to bake a cake or a do-it-yourself handbook.

Technically, computers use algorithms to list the detailed instructions for carrying out an operation. For example, to compute an employee’s paycheck, the computer uses an algorithm. To accomplish this task, appropriate data must be entered into the system. In terms of efficiency, various algorithms are able to accomplish operations or problem solving easily and quickly.