

INFO1111: Computing 1A Professionalism

2022 Semester 1

Practice: Team Project Report

Submission number: ??

Team Members:

Name	Student ID	Levels being attempted in this submission
Tomas Dowd	520457269	1
??	??	??
??	??	??
??	??	??
??	??	??

Contents

General Instructions

You should use this L^AT_EX template to generate your team project report. Keep in mind the following key points:

- When we assess your report, you are not given a mark. Instead we will indicate (separately, for each team member) whether each level is "achieved".
- In order to pass the unit, you must achieve at least level 1.
- In order to achieve level 2, you must first have achieved level 1, and so on for each level up to level 4. This means that we will not assess a higher level until a lower level has been achieved (though we will review one level higher and give you feedback to help you in refining your work).
- Some parts of the report are completed as a team and other parts require each student to complete a different section. This means that for each submission, some members of the team may have completed their work for a given section, but other members may not. It also is therefore possible that some members of the team may achieve a specified level and other members of the team may not yet have achieved that level.
- Even if some members are completing their material for a given level, and others are not, your team members will still need to work together to edit and compile the report. The only exception to this is where a member of the team has already achieved the level they are targeting in a previous submission and has decided to not attempt higher levels, and so is not contributing any further (this should be obvious because no level is indicated for that student on the cover page).
- When completing each section you should remove the explanation text and replace it with your material.

For each submission you will add new details to this report, and/or update previous sections (where previous work was not good enough to have achieved the relevant level). In particular:

- **General:** For each submission, each student can attempt up to 2 levels. You must also successfully achieve each lower level before you can be assessed at a higher level. For example, in the first submission you might attempt only level 1, but not be successful in achieving that level. You then reattempt level 1 and add in level 2 in the second submission and are successful in achieving level 1 but not level 2. For the third and final submission you could then attempt level 2, or levels 2 and 3 - or even just choose to not submit anything further and remain at level 1).
- **Submission 1:** You should complete at least the material for level 1 (since achieving level 1 is required to pass the unit). Each member of the team can also optionally choose to complete the material for level 2.

Note 1: If you do not complete the level 2 information then you obviously cannot achieve level 2 at this stage. This does not stop you from attempting level 2 in Deliverable 2 or 3, but it will make it more difficult to achieve the higher levels later in the semester. Note 2: To be able to achieve Level 1 in submission one your team has to achieve level 1 in the group component (Section 1.1) and you have to achieve Level 1 in the individual component (i.e. your assigned section 1.2, 1.3, 1.4 or 1.5)

- **Submission 2:** Each member of your team will complete additional sections, but because you are submitting a single document, you need to work together to compile your results together and generate the final submission.

If you did not achieve level 1 in your first submission, then you should revise the material for level 1 based on the feedback, and optionally you can also complete level 2.

If you achieved level 1 in your first submission, then each team member can optionally complete the material for levels 2 and 3. *Note: If you do not achieve level 1 with this submission then the highest level you will be able to achieve in the final submission will be level 2. If you achieve level 1, but not level 2, with this submission then the highest level you will be able to achieve with the final submission is level 3.*

- **Submission 3:** Again, you can correct sections where you did not achieve the specified level in the previous submission, and you complete additional sections.

If you still have not achieved level 1, then you should revise the material for level 1 based on the feedback, and again optionally you can also complete level 2.

For those at level 1, you can choose to complete the material for levels 2 and 3.

For those at level 2, you can choose to complete the material for levels 3 and 4.

For those at level 3, you can choose to complete the material for level 4.

Whilst the team project is just that – a team project – it has been designed to also allow different members of the team to achieve different outcomes. We do expect you to work together as a team. If you do come across problems working together then the first step should be to discuss this with your tutor. Note: If you are having problems you should approach your tutor as soon as you can to make them aware of the difficulties you are having with your team.

Finally, you should also ensure that any resources you use are suitably referenced, and references are included into the reference list at the end of this document. You should use APA 6th reference style (?, ?).

1. Level 1: Basic Skills

Level 1 focuses on basic technical skills (related to L^AT_EX and Git) and the types of skills used in different computing jobs.

1.1. Developing industry skills

This section is completed as a team.

Throughout your Computing degree we will help you learn a range of new skills. Once you graduate however you will need to continue to learn new languages, new tools, new applications, etc. For this section you need to identify 5 approaches you can take to this continual learning. You should then put these in order from most effective to least effective, and then explain the circumstances in which each approach might be appropriate. (Target = ~100 words per skill = ~500 words total).

This section is completed individually. Each member of the team should independently complete a separate copy of this section.

You should begin by allocating to each team member a different major to focus on (i.e. one of: Computer Science; Data Science; Software Development; Cyber Security). *If you have a fifth member, then your tutor will suggest a fifth topic to cover.* You should then undertake research into the typical practical skills that you believe would be most important to someone who graduates with this major and is then working in industry. You should list the 8 skills that you believe are most important and for each one give a short explanation as to why you feel it is important. (Target = ~100 words per skill ~800 words total per student).

1.2. Skills Tomas: Computer Science

Your text goes here

1.3. Skills: add student 2 name here : Data Science

Your text goes here

1.4. Skills: add student 3 name here : Software Development

fs Your text goes here

1.5. Skills: add student 4 name here : Cyber Security

Your text goes here

2. Level 2: Basic Technology

Level 2 focuses on initial evaluation of the tech stack that is used by a selected company. All companies make use of a range of technologies, and these technologies need to work together. A tech stack is basically just this collection of technologies that collectively enable a company's systems. As an example, one of the most common technology stacks for supporting web servers is LAMP: Linux as the underlying operating system; Apache as a web server; MySQL as the supporting database; and Perl (or more recently PHP or Python) as the programming language.

Each student should choose a different tech stack and explain the role of each of the different technologies in that stack. Note that prior to researching your proposed tech stack and spending time writing about it, it might be a good idea to check with your tutor as to whether your chosen stack is suitable. (Target = \sim 200-400 words per student).

2.1. Tech Stack: add student 1 name here

Your text goes here

2.2. Tech Stack: add student 2 name here

Your text goes here

2.3. Tech Stack: add student 3 name here

Your text goes here

2.4. Tech Stack: add student 4 name here

Your text goes here

3. Level 3: Advanced Skills

Level 3 focuses on more advanced technical skills (L^AT_EX and Git) and analysis of linkages and relationships between the items in the company tech stack.

The following is a list of advanced Git and L^AT_EX skills/features. Each student should select one pair of items from each list and demonstrate actual use of each item (either through activity in Git, or through including items in this report). (Target = ~100 words per student for each feature).

- Git
 - Rebasing and Ignoring files
 - Forking and Special files
 - Resetting and Tags
 - Reverting and Automated merges
 - Hooks and Tags
- L^AT_EX
 - Cross-referencing and Custom commands
 - Footnotes/margin notes and creating new environments
 - Floating figures and editing style sheets
 - Graphics and advanced mathematical equations
 - Macros and hyperlinks

3.1. Advanced features: Tomas Dowd

Explain your use of the advanced Git and L^AT_EX features.

3.2. Advanced features: add student 2 name here

Explain your use of the advanced Git and L^AT_EX features.

3.3. Advanced features: add student 3 name here

Explain your use of the advanced Git and L^AT_EX features.

3.4. Advanced features: add student 4 name here

Explain your use of the advanced Git and L^AT_EX features.

4. Level 4: Advanced Knowledge

Level 4 focuses on analysing your particular tech stack and considering alternatives. Each student should consider the tech stack they described for Level 2, and then discuss each of the following points:

- What are the strengths and limitations of this stack? (Target = ~ 200 words).
- What alternatives exist, and under what situations might these alternatives be a better choice? (Target = ~ 200 words).

4.1. Advanced Knowledge: add student 1 name here

Your text goes here

4.2. Advanced Knowledge: add student 2 name here

Your text goes here

4.3. Advanced Knowledge: add student 3 name here

Your text goes here

4.4. Advanced Knowledge: add student 4 name here

Your text goes here