

COSC2196

Introduction to Information Technology

Assessment 2: Team Project



Assessment Type:

Word limit: N/A



Due date: Sunday of Week 7, 11:59PM (AEST)



Weighting: 20%

Overview

In this assignment you will work in a group of 4 to 6 to produce a report on various aspects of the IT industry as well as a plan for an IT project. Your work needs to constitute a self-contained document that makes sense without the reader referring to the marking specification to understand the meaning of the information that you are communicating.

Groups are self-organised in Canvas, under the People section.

This is a group assignment. Each person in the group will receive the same mark, unless there are extenuating circumstances which your group has discussed with the instructor or the contribution form / SparkPLUS / Feedback expresses a sizeable difference in contributions and efforts made towards the completion of this assessment.

Note: We strongly recommend that members discuss their grades and feedback with the team openly from Assignment 1 early when formulating your team. This promotes a team culture of openness and transparency where you'll be able to more cohesively learn and work with one another. This may be a challenging discussion, however this can help bring individual student expectations to the same standard so you will be able to interact in a healthy team environment.

Individually, look to express the highs, lows, and unique challenges you faced while completing A1 with your team members, and consider each other team member as an equal contributor.

Assessment Criteria

Team Profile	5%
Tools	5%
Industry Data	15%
IT Work	15%
IT Technologies	20%
Project Ideas	10%
Feedback	10%
Group Reflection	10%
Presentation	10%

Learning Outcomes

This assessment supports the Graduate Outcomes of Enabling Knowledge, Critical Analysis, Problem Solving, Communication and Team Work.

- CLO 1: describe and apply basic concepts of contemporary technologies
- CLO 2: analyse human and social contexts of technological innovations
- CLO 3: apply the knowledge of various ICT components to create a prototype of a product/service
- CLO 4: identify principles of collaborative work and explain potential conflict resolution techniques
- CLO 5: participate effectively and creatively in a team environment
- CLO 6: prepare a professional and comprehensively written IT report within provided parameters



Assessment details

My profile

Purpose

Now that you have developed a profile of yourself (Assignment 1), it is time to use this profile to assemble a group, and to show how you can work as a team to produce a report on various aspects of the IT industry.

What you will demonstrate:

You'll demonstrate your ability to work in a team environment, complete research tasks, and to present information in a professional report format. You'll also explore your creative side by putting forward a group project idea expanding or combining project ideas from Assignment 1 which can be bolstered by your research into your chosen IT Technologies.

How you will demonstrate it:

Writing up a document covering all of the different areas listed above (and detailed below), to be then formatted and presented in a PDF Report. Present a group website hosted on GitHub Pages.

Specifications

Team profile

Each of you will have produced a personal profile for Assignment 1. You are to assemble this information, reviewing it as you see fit given your feedback from Assignment 1, to produce a team profile. This should be organised into the following subsections.

Team Name

You are free to choose any name for your group that you wish. However, this name will be used to identify your group for the rest of the course, so please choose wisely. You should also keep in mind that this name could be one that comes to the attention of potential employers.



Personal information

One paragraph per person, including name, student number, background, hobbies, IT interest and IT experience. This should also include your team's chosen name.

Team Profile

The test outcomes for each person in the team (all 3 tests), and your understanding of how this information may be helpful to the group. You should do this as soon as your group is formed. You will have a chance to reflect on how well the group has worked later.

Ideal Jobs

Compare and contrast the ideal jobs for each person in the group. This may have changed due to feedback from Assignment 1. What common elements are there, if any? What differentiates each position from the others, if anything? How similar or different are your career plans across the group?

Tools

Having set up an individual website in Assignment 1, you should now set up a group website, using the same approach. You should then include links to each individual website on the group website.

You also need to set up a GitHub or similar repository for your group on which you can use Git. This is to facilitate the production and maintenance of group artefacts, which will include the assignment submission, but may also include other reports or information, code, examples, formatted data, images and videos, links, and similar information.

You will also need to set up your group on Canvas.

In your report you should include a brief description of what you have done, and include the following:

- The link to your group's website
- The link to your group's Git repository (GitHub, BitBucket, etc)
- Your comments on how well the audit trail on the Git repository reflects your group's work. You will presumably only be able to do this close to the time of submission.



Industry Data

In Canvas, you will find a link to some industry data supplied by Burning Glass. You should use this (as well as any other data you may be able to find) to answer the following questions.

- What are the Job Titles for your group's ideal jobs? How do each of these rank in terms of demand from employers?
- From your group's ideal jobs, you can identify a set of skills required for these jobs (we will refer to this as your group's required skill set). These can be divided into general skills (communication, problem solving, writing etc) and IT-specific skills (Javascript, SQL, etc).
 - How do the IT-specific skills in your required skill set rank in terms of demand from employers?
 - How do the general skills in your required skill set rank in terms of demand from employers?
 - What are the three highest ranked IT-specific skills which are not in your required skill set?
 - What are the three highest ranked general skills which are not in your required skill set?
- Having looked at the Burning Glass data, has your opinion of your ideal job changed? Why or why not?

IT Work

The IT industry is large, varied and changes over time. It is also easy to get a misleading impression of what is typically involved on a day-to-day basis from a job advertisement or a position description. In order to help you understand this, the best way seems to be to hear from some IT professionals about their daily work. There are two ways in which you can do this, as below.

- Interview an IT professional
- View, summarise and discuss at least 10 YouTube videos or other web sources (you may be surprised how many hits there are for a Google search on A day in the life of an IT professional).

You as a group need to choose one of these two approaches. If it is all possible, it is strongly recommended that you (as a group) interview an IT professional. Not only will this information be more direct, it may provide you with a contact that you will find helpful in the future. If you choose this option, you will be provided with a list of





questions to ask and some basic training in how to go about this interview. If you choose the web sources option, you need to report on 5 different IT professionals, as well as indicate your 10 sources.

Whichever source of information you use, you should answer the following questions.

- What kind of work is done by the IT professional?
- What kinds of people does the IT professional interact with? Are they other IT professionals? Clients? Investors? The general public?
- Where does the IT professional spend most of their time?
- What aspect of their position is most challenging?

IT Technologies

There are a lot of fascinating developments going on in the IT world, many of which may fall by the wayside, but some of which are likely to change the way the world works. Historic examples of such developments include the Internet, smartphones, cloud computing and public-key cryptography.

In this section you should report on 4 of the areas below.

- Clouds, services, servers
- Cybersecurity
- Blockchain and cryptocurrencies
- Machine Learning
- Autonomous vehicles
- Natural Language processing and chatterbots
- Robots
- Raspberry Pis, Arduinos, Makey Makeys and other small computing devices

Some starting points and other information will be made available on Canvas.

For each of the areas covered, you should report on the following.

What does it do? (600 words) What is the state of the art of this new technology? What can be done now? What is likely to be able to do be done soon (say in the next 3 years)? What technological or other developments make this possible?



What is the likely impact? (300 words) What is the potential impact of this development? What is likely to change? Which people will be most affected and how? Will this create, replace or make redundant any current jobs or technologies?

How will this affect you? (300 words) In your daily life, how will this affect you? What will be different for you? How might this affect members of your family or your friends?

Project Ideas

You all have some project ideas that you reported in Assignment 1. You are to come up with a project idea for the group as a whole, which could be an individual's idea, but is more likely to be a combination of each of the ideas you had individually, together with comments and feedback from your Assignment 1 marker, instructor, and anyone else who you would like to consult.

You may also wish to consider what problems need to be solved, for which there are many sources of information, such as the ones below. There are many more websites like these, of course.

<https://www.weforum.org/agenda/2016/01/what-are-the-10-biggest-global-challenges/>

<https://www.cheatsheet.com/money-career/want-to-be-a-billionaire-solve-one-of-these-5-problems.html/?a=viewall>

<https://www.quora.com/What-are-common-problems-that-need-solving>

There is no set length for this section, but it is difficult to see how a description of less than 500 words would be adequate. Do not limit yourself to this if you have more than this to write, though - but it should be in a well written and concise format. If you are unsure of how much to write, ask your instructor for advice.

Feedback

By the time you get to Week 8, you should have been working as a group for three weeks, and hence have some experience of how well the group is working. A key feature of industry teams is the ability to give and receive feedback, particular to members of a team in which you are working. In order to give you some experience at this, your group should login to the SparkPLUS tool (instructions on how to do this



will be given on Canvas). Each person should provide an assessment of each member of the group, including themselves. This will then provide feedback to each of you, and in particular, on how the rest of the team view's your performance.

You do not need to include any information about the feedback you receive, as this is intended to give you experience with use of tools such as these, and how the information is gathered and processed in such tools. The markers will, however, check that each person in the group has contributed via SparkPLUS, and the marks for this section will only be awarded if all group members have contributed in an appropriate manner by the assignment deadline.

If you have any concerns with this process, please raise these with your tutor or lecturer. In particular, if you wish to have a group discussion about this feedback, please contact the lecturer who will facilitate a group discussion on this topic.

Group Reflection

Towards the end of the assignment period, you should reflect as a group on how well you think you have performed in this assignment. You should include whatever evidence you may have about the groups processes (such as commit trails from GitHub, or project meeting minutes). Each member of the group should contribute up to 200 words about their own perception of the group, and the group as a whole should contribute around 400 words. This should include the following attributes.

- What went well
- What could be improved
- At least one thing that was surprising
- At least one thing that you have learned about groups
- Remember to include in your section on Tools how well you think your Github log of activity reflects your group's work on this assignment.

Referencing guidelines

Use Harvard Referencing Style for this assessment if appropriate.

You must acknowledge all the courses of information you have used in your assessments.

Refer to the RMIT Easy Cite referencing tool to see examples and tips on how to reference in the appropriated style. You can also refer to the library referencing page for more tools such as EndNote, referencing tutorials and referencing guides for printing.

Submission format

A member of the group to upload as one (1) single PDF file to Canvas via the link on the Assignment page. Make sure the file type is an accepted format.

Extension Application

If you are prevented from submitting an assessment on time by circumstances outside of your control, you can apply for an extension (one business day before the assessment due date). To apply, complete the [extension form](#), along with supporting documentation and send directly to your Tutor. You will be notified of the outcome within 2 business days.

When submitting your application request it must be accompanied by supporting documentation and your progress towards the assessment to date.

Please note: Applications must be submitted at least one business day prior to the due date. (e.g. If an assessment is due on Sunday, you will need to submit a form by Friday).

Special Consideration

Where an extension of greater than seven days is needed, you must apply for [Special Consideration](#).

Academic integrity and plagiarism

Academic integrity is about honest presentation of your academic work. It means acknowledging the work of others while developing your own insights, knowledge and ideas.

You should take extreme care that you have:

1. Acknowledged words, data, diagrams, models, frameworks and/or ideas of others you have quoted (i.e. directly copied), summarised, paraphrased, discussed or mentioned in your assessment through the appropriate referencing methods,
2. Provided a reference list of the publication details so your reader can locate the source if necessary. This includes material taken from Internet sites.

If you do not acknowledge the sources of your material, you may be accused of plagiarism because you have passed off the work and ideas of another person without appropriate referencing, as if they were your own.

RMIT University treats plagiarism as a very serious offence constituting misconduct.

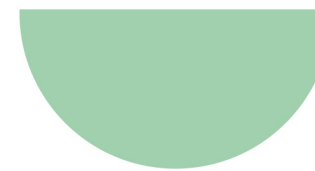
Plagiarism covers a variety of inappropriate behaviours, including:

1. Failure to properly document a source
2. Copyright material from the internet or databases
3. Collusion between students

For further information on our policies and procedures, please refer to the [University website](#).

Assessment declaration

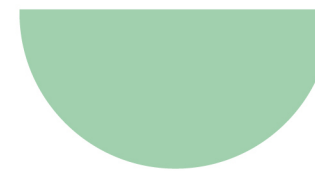
When you submit work electronically, you agree to the [assessment declaration](#).



	Exemplary >80%	Accomplished 80-60%	Developing 60-50%	Beginning <50%
Team Profile 5 Marks	5-4 Marks You have elucidated all the relevant information about your team in a manner that is simple for the reader to interpret. You have included your test results, and a clear discussion of the differences between your ideal jobs.	4-3 Marks You have coherently included all of the relevant information about your team. You have included your test results, and discussed all relevant aspects of the differences between your ideal jobs.	3-2.5 Marks You have included all the relevant information about your team. You have included all of your test results, and discussed some relevant aspects of the differences between your ideal jobs.	2.5-0 Marks You have not included very much information about your team. You need to include more test results. You needed to discuss more aspects of the differences between your ideal jobs.
Tools 5 Marks	5-4 Marks You have included a link to your group's website. You have set up your group's Git repository and included a link to it. You have made clear and appropriate comments about your group's log of activity. Any other tool, platform, service used is also discussed.	4-3 Marks You have included a link to your group's website. You have set up your group's Git repository and included a link to it. You have made some comments about your group's log of activity.	3-2.5 Marks Some of the appropriate links are missing. You have not included a link to your group's Git repository. You need to include more comments about your group's log of activity.	2.5-0 Marks You haven't included a link to your group's website. You have not set up your group's Git repository or included a link to it. You have not made any reasonable comments about your group's log of activity.
Industry Data 15 Marks	15-12 Marks You have clearly identified relevant job titles for your ideal jobs. You have clearly and accurately identified and ranked your group's required skill set. There is commentary and involved discussion on how this data may have changed your opinion is provided.	12-9 Marks You have identified relevant job titles for your ideal jobs. You have identified and ranked your group's required skill set. You have made reasonable commentary on how this data may have changed your opinion.	9-7.5 Marks You have identified to some extent the job titles for your ideal jobs. You have identified and ranked some of your group's required skill set. You have made comments on how this data may have changed your opinion.	7.5-0 Marks You have not identified sufficiently the job titles for your ideal jobs. You have not identified or ranked your group's required skill set. Your comments on how this data may have changed your opinion need significantly more work.



IT Work 15 Marks	15-12 Marks You have clearly described the kind of work done. You have described and explored all of the interactions with other people. You have described how most time is spent with a high standard of narrative flow. You have succinctly included the challenging aspects of this work. Developing a section substantially beyond the question set.	12-9 Marks You have described the kind of work done. You have described the interactions with other people. You have described how time is spent. You have described the challenging aspects of this work.	9-7.5 Marks Your description of the work done needs some more details and exploration. You have described some of the interactions with other people. Your description of the time spent needs more attention. You have described some of the challenging aspects of this work. While largely hitting the base specification elements you could have elevated this section with further investigation or research..	7.5-0 Marks Your description of the work done is inadequate. Your description of the interactions with other people needs more details. Your description of the time spent needs more attention. You need to describe in more detail the challenging aspects of this work.
IT Technologies 20 Marks	20-16 Marks You have given an excellent description of all four of your chosen areas. You have clearly described the state of the art comprehensively. You have accurately discussed the potential impact and how this may affect your daily life in an engaging and compelling manner.	16-12 Marks You have given a description of all four of your chosen areas. You have described the state of the art in an informative and concise manner. You have discussed the potential impact and how this may affect your daily life.	12-10 Marks You have given descriptions of your four chosen areas. You have described the state of the art to a decent extent. You have discussed the potential impact and how this may affect your daily life. Further coverage of these technologies would be most welcome to the reader.	10-0 Marks Your descriptions of your four chosen areas are severely lacking. Your description of the state of the art needs substantially more work. You need to include more detail on the potential impact and how this may affect your daily life.
Project Ideas 10 Marks (Note: The quality and feedback provided on this section will heavily influence your ability to deliver outcomes in subsequent assignments)	10-8 Marks You have given a clear description of your project idea. You have discussed the details of it in elaborate detail. Not only covering the base elements from A1 and expanding heavily to describe what the group is planning to implement and deliver in A3.	8-6 Marks You have given a description of your project idea. You have discussed the details of implementation to a notable extent. There is good understanding and context highlighted for the project idea proposed developing on the A1 base.	6-5 Marks Your description of your project idea hits key details that have expanded from A1. The extent to which you could discuss this could be described in further depth. More research is recommended to elucidate how you would deliver your project idea.	5-0 Marks Your project idea needs some significant further work. There is not nearly enough detail here to get a clear picture of what you plan to do. There needs to be more thought regarding the feasibility too towards the completion of such a project.



Feedback 10 Marks (Note: This section will be proportionally impacted by active team members who do not contribute SparkPLUS feedback)	10-8 Marks ACTIVE group members have contributed quality personal feedback on themselves and their group members on SparkPLUS.	8-6 Marks ACTIVE group members have contributed appropriate feedback on themselves and their group members on SparkPLUS.	6-5 Marks ACTIVE group members have contributed some feedback on themselves and their group members on SparkPLUS, but there is some significant information missing.	5-0 Marks ACTIVE group has not contributed appropriately to SparkPLUS. A significant amount of information is missing.
Group Reflection 10 Marks	10-8 Marks You have reflected and discussed what worked well in your group. You have elaborated on what could be improved and how. You have included at least one surprising thing for each team member. You have deeply discussed one thing you have learned about group work. Contributions have been noted clearly with commentary.	8-6 Marks You have clearly described what worked well in your group. You have discussed what could be improved. You have included at least one surprising thing for each team member. You have discussed one thing you have learned about group work. Contributions have been noted clearly and discussion.	6-5 Marks You have described what worked well in your group to some extent. You have discussed what could be improved, but some more explanation is needed. Your discussion of a surprising thing and what you have learned both need more work. Contributions have been noted clearly with comments.	5-0 Marks You have not clearly described what worked well in your group. You have not discussed what could be improved. You have not discussed a surprising thing, or what you have learned about groups. Contributions needed to have been noted clearly.
Presentation 10 Marks	10-8 Marks Your report looks clean and professional, using the appropriate font, colours and backgrounds. Resembling a document with graphic designer elements. Exceptional formatting. You have included an appropriate number of images/visual elements.	8-6 Marks Your report looks good, and uses the appropriate font, colours and backgrounds. You have included an appropriate number of images and visuals. Your report has been well formatted.	6-5 Marks Your report looks reasonable, but needs some attention to detail in key areas. Reasonable formatting. You should improve your use of images and visual elements.	5-0 Marks Your report needs improvement. You need to use appropriate fonts, colours and backgrounds. You have little or no use of appropriate images or visual elements. Document templates implementation would be recommended.