Assignment 1

OUA Building IT Systems (CPT111)

SP2, 2018

Overview

1. This assignment is worth a total of 100 marks, which contributes 5% of your team's overall grade. The breakdown of marks for Assignment 1 is:
   a. Part 1: *What* = 47 marks
   b. Part 2: *How* = 18 marks
   c. Part 3: *When* = 30 marks
   d. Professionalism = 5 marks
2. We have provided a template for the assignment. The template can be found on Canvas. Use that template as the outline basis for your submission.
3. **All** sections **must be** included in your report. Do not have a blank or missing section.
4. There is no minimum or maximum word/page count. Use the appropriate number of words/pages you need in order to fulfil the requirements described in this document.
5. Read **each part** of this assignment outline below to gain a clear understanding of what is required from *your group.*

Specifics:

● Your task is to write a **proposal** for a project to build a functional prototype of an IT system. Your group will endeavour to complete the prototype by the end of Week 12. This is the end of your project timeline.

● Everyone enrolled in this subject has potentially a different start point in respect of their IT knowledge. Accordingly, *your* project should be beyond what you can currently accomplish. This will then need to be formally approved by your mentor. In terms of time and scope, it should average a **minimum** of 5 project hours per week over the duration of 8 weeks for each member of the group. In a team of 6, this would be **240 project hours** in total.

● We have identified different areas/streams in which you may choose a project topic[1]. Choose a project stream that your group feels passionate or interested in. Always cross check with your mentor for ideas and to identify the scope of your proposed work. Any "unusual" project (for example, one that does not seem to fit into one of the streams) must be discussed with the Lecturer[2].

● Each team is required to interact with their mentor for **one hour** (minimum 20-minutes live chat), once a week. Your mentor will note your group participation while supervising project progress, and this will form your score for the participation assessment, below.

● Your project must be formally **approved** by your assigned mentor before the due date of your submission in order to be **eligible to submit**. This will ensure that your proposal fulfils the requirements.

---

[1] Please consult with your mentor and refer to Canvas for further reference
[2] abm.russel@rmit.edu.au

- You are encouraged to collaborate with your team at an agreed time of your group's choosing, throughout the week. At a minimum, you are **required** to synchronously collaborate with your teammates for **at least one hour** each week**.**
- This assignment should contain as much detail as needed to persuade the assessor that you will be able to execute the project in the allotted time and to enable you to produce a functional prototype by the end of the project timeline i.e. Week 12.
- Every member of the group must contribute an **equal and fair amount of work** to the project and assignments. Lack of contribution by members will not damage the mark of their group members; they will damage their own mark. The overall marks awarded to each member will be adjusted using **Self and Peer Assessment factor**[3].

Part 1 - *What* {47 marks}

This section describes *what* your project is about. It should contain the following subsections/headings.

Project Name: *{2 marks}*
This is the name of the product/item you are building. Be creative!

Project Description: *{5 marks}*
The description should:
- Contain enough details so that anyone with reasonable technical capability can unambiguously visualise the proposed product.
- Identify the type of project/stream this is: for example, a 2D Platformer, a Visual Novel or something else.
- Contain a detailed description of the *functionality* of the product (that is, what the product will do), and enough information to give the assessor a "good feel" of the expected product experience.

The Team: *{10 marks}*
List your team using the following information:
- Full Names (as per RMIT course registration (please avoid assumed/nicknames)
- Student Email Address
- Your personal background and passion in IT (a few sentences)
- Your strong points or current ability and what you're interested in
- Your challenges in the context of the project
- The specific types of tasks you see yourself contributing to the team?

Demonstrable Outcomes
List the demonstrable outcomes of your project. Think of this as comprising the functional[4] and nonfunctional[5] requirements that can be measured/demonstrated. If you were to buy your product from the store, what would the packaging describe. List these and include a measure (question you can ask) that validates the outcome. For

---

[3] Using SparkPlus to determine students' contribution. http://sparkplus.com.au/
[4] How the system will react to particular input such as login function
[5] What are the constraints on the services such as security, usability, performance etc.

example: We will produce a digital clock showing the current time on the app. To make this demonstrable you should add, for example, that the current time will be displayed on your application's dashboard?

Break down your demonstrable outcomes into two sections:

- **Features**: *{10 marks}*

Describe the features which can be demonstrated.

List at least 5 features[6]. ("The background will be white" is not a **feature**.) For each feature you list, explain how you will validate that the feature has been successfully implemented (Validation Testing).

- **Extended Features**: *{3 marks}*

If time permits, these features will also be implemented. List at least 3. For each feature you list, explain how you will validate that the feature has been successfully implemented (Validation Testing).

Project Motivation: *{3 marks}*

Describe what motivated your group to choose this particular project?
How does it relate to your individual and collective interests?

Project Justification

Here you will explain how your project scope fulfills the criteria below:

- **Justified Workload** *{4 marks}*

As described above, the project involves 5 hours of work per week, for 8 weeks, for each member. This is a total of 240 hours for a group of 6 persons. Use your project schedule to back up your claims. Your project schedule should therefore include approximate hours for various tasks.

- **Beyond Current Capabilities** *{4 marks}*

The idea of the project is to extend your current IT knowledge. In this section you will explain what your current knowledge is and how completion of the project will extend it.

- **Project Risks** {6 marks}

Any project presents specific risks and challenges. By identifying these risks and challenges, you show that you are aware of their potential. This will also help you to deal with these risks should they be manifest.

List three project risks[7] that would majorly interfere with your project outcomes *as well as* three team dynamics related challenges that would significantly delay your project's progress. For each identified risk and challenge, indicate how you propose to monitor and minimize the issue arising.

---

[6] Such as web search engine returning results, display live twitter feed, character movement in a game etc.
[7] Such as scope creep, missing deadlines, hardware integration failure etc.

Part 2 - *How* {18 marks}

We describe how to write the four sections below.

Resources and Tools *{3 marks}*

List the technology, tools and resources you will use for each phase of the project. Include hyperlinks to their source and any relevant documentation.

Each tool/resource should contain:
- Tool/Resource name
- Short description
- Rationale (why you are using this)
- Specific version (if applicable) and Cost (hopefully zero!)
- Describe any alternatives (simply name and link to them) that you did not use.

Collaborative Workspaces *{5 marks}*

Describe the workspaces you will use to collaborate? Does everyone in your team know where to find collaborative workspaces within your files/boards etc?

List all the workspaces you will be using including:
- URL
- Information on how to access it. (Examples might be drawn from: Trello, Google Drive, GitHub, Heroku, Cloud9 etc.).

Communication Expectations *{5 marks}*

It constitutes an **agreement between all team members** for the communication expectations and responsibilities. This will reduce team member's mismatched understandings and expectations.

In particular:
- List the tools you will use to communicate
- Describe the expected frequency of responses
- Describe how you use the tools in the context of your weekly workflow.
- Include a description of an action-plan for **all** team members if a team does not respond to communication sent out by the team, or doesn't attend meetings. If you are stuck, immediately consult with your Lecturer[8] for further action.

Decision Making *{5 marks}*

Describe the following:
- Your team's decision making process (how you have agreed to come to a decision)
- Your team's dispute resolution process (how you deal with specific problems)

---

[8] abm.russel@rmit.edu.au

Part 3 - When {30 marks}

"Failing to plan is planning to fail"[9].

List tasks with enough detail so that the assessor can see what *each* member is meant to be able to demonstrable each week. List the tasks that need to be completed between Week 3 and 12 in order to deliver your project and its final report. Each task should contain the following:

- Descriptive Title, which is hyperlinked to its corresponding trello card.
- Planned Start and End by (Date)
- Lead by (member's name)

The linked trello card should include:

- A descriptive title
- A planned start and due date
- The estimated time required to complete the task
- A precise description of the task that is to be completed with any necessary contextual information.
- A description of the artefact[10] the task will produce.
- Who is responsible for managing the task to completion.

Note that the sample cards we have provided as an exemplar can only be viewed once you've formally joined the **RMIT 2018 SP2 BITS CPT111 Trello Team**. Your Lecturer will join you in the Trello Team once you have formed a group in week 2.

---

[9] Alen Lakein
[10] This is just a fancy name for one element of your product as built by that task.

Part 4 - Professionalism {5 marks}

Please follow guidelines below:

1. Font used must be Arial, in black, size 12.
2. All figures must be clearly labeled.
3. A table of contents should be used with correct page numbers for each section.
4. Where possible, please use **bullet points so that** your group assignment is easily read by the assessor.

Part 5 - Submission

1. Before submission:
    a. Register your official group and a team name[11].
    b. Complete Trello prerequisite steps[12].
    c. Work with your mentor until they approve your project.
2. The final submission must be in Adobe **PDF** format. **Only one member should submit in Canvas**.
3. The **due date** for this assignment is **Sunday 24/06/18** at **11:59PM (AEST)**
4. You must submit the assignment **in two places**. Submit it both on Canvas Assignment 1 Submission section and on the corresponding Assignment 1 Team Trello card.
5. For *each day* submission of Assignment 1 is **late**, a total of **10%** will be **deducted** from your **overall grade** for this assignment. If your team fails to submit within 10 days of the **due date,** your group will not receive any marks.

{ END }

---

[11] https://goo.gl/4Kh3Lo
[12] Joined the **RMIT 2018 SP1 BITS CPT111 Trello Team** and created Project Board.