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| QUT - Corporate identity and QUT logo | **IFB398 Capstone Project (Phase 1)**  Assessment 2  Interim Project Report Criteria Sheet and Guidelines |

**Submission deadline** : Midnight, FRIDAY of **Week 14**

Weighting : 40%

Task : Group

Page Limit : 10 pages (not including table of contents, statement of contribution, appendix, prototypes)

Table of Contents

To help us navigate the report, please include a table of contents

Introduction

This document provides an overall guide to the interim report for your Capstone project, the most important assessment item for IFB398. We have deliberately encouraged a wide range of alternative capstone projects, and the artefact that your team is working on may be very different from one being created by another team. The goal of the report is for you to give us a guided tour of your project and to tell us what you have managed to achieve over the course of the semester. We will be marking the two together as part of this assessment item, but a well-written report will help us a lot in understanding what you have done, and in giving you the highest marks we can.

In the rest of this guide, we will give an overview of some of the sections that we will require as part of the report. It is not coincidental that these relate closely to the requirements of the CRA. The other point which is very important for you to understand is that the report should not contain everything you have done in your project. Closer to submission time, we will give you clear instructions on how to submit, but as a strong hint, it will be a zip file with the report in the top directory, and artefact and supporting docs like user stories, storyboard, expanded research content, etc in subdirectories with names we will specify.

Given the large variety in the nature of the projects, there will likely be some variation in the appropriate content to include in these reports. There will be several required sections of the report where you must include the information requested, however, there is some allowed variation in the manner with which you communicate these requirements.

Overall, the goal is to convince us that you understand the project you are working on and the associated challenges, that you have a clear solution to address these challenges, and that you have a clear understanding (both technically and in terms of project planning) of how to deliver on that solution.

Unless you have a **VERY** good reason to depart from this structure you should include all of the paragraphs below, and in this same order. Keep in mind that the markers will look for these discussion points, and changing the structure will only make it harder for them to fairly mark your report.

**Section 1. Project Context, Goals, Scope, and Management (20 Pt)**

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| **Marking criteria: Project Establishment and Management [how you are managing decisions, tasks, strategies, and how you are documenting it all] (20/40 marks) (remove this table before submission)**  Learning Outcomes: 1, 3, 4 | |
| This section must discuss the **project context** (the nature of the business or organization, the sector within which it operates), the project **goals** (what the clients want to achieve), the **scope** (which aspects/features/topics will be actually developed, and which will not), a **feasibility and risk analysis** (what resources do you need to complete the project, what risks can you identify, including risks connected to working off campus, and possible ethical implications), and the **release plan** (what are you delivering to the client and when, including a tentative plan for phase 2). | |
| **Criteria For Excellence (Over 85%) All that is detailed below (Beyond Expectations), and in addition:**   * An expert reader can understand Context, Scope and goals WITHOUT previous knowledge of the project * The project involves GENUINE feasibility challenges that a professional would seriously consider before committing to a plan * The project involves genuine safety risks (e.g. remote fieldwork) AND the students are showing leadership and initiative in dealing with these * There is clear evidence SEVERAL ITERATIONS through risk/mitigation in conversation with relevant stakeholders * There is clear evidence that the students are taking seriously the moral dimension of the project (e.g. impact on users, accessibility to a diverse audience) and are seriously reflecting on the implications FROM THE PERSPECTIVE OF PEOPLE AFFECTED * Requirement elicitation was conducted in a complex setting, with clear input from stakeholders. There is evidence that the requirements are NOT SIMPLY COMING from the students' perspective. * The plan is set to deliver clear VALUE for the client right from phase 1 (e.g. a prototype deliverable in phase 1) * The plan evidences incremental prototypes delivered to the client, and includes relevant time for testing, deployment, and handover. | |
| **Beyond Expectations (75-85)** | An excellent report will include a full explanation of the **context** and the project **goals** will be clearly listed, very well considered, defined and strongly connected with the context. Moreover, the project **goals** are thoroughly explained so that their impact on the organization, the industry sector and the community is clear. The **scope** is clearly described anchored with well-founded discussion relating with previous sections. A **feasibility analysis** carefully considered a wide range of factors (technical, schedule, logistics, etc) foregrounding points that are not obvious but important to consider. The reader gains a confidence that all important aspects have been considered. The **risk assessment** is extensively analysed and covers all reasonable scenarios. There is clear evidence of professional attitude towards contributing to a safe work environment for all. The **mitigation strategies** thoroughly described the situations that needed/will need mediating, the existing/potential challenges and other situations that the team experienced or will expect to experience and have provided clear and novel ways/protocols in dealing with different situations. The **ethical implications** are critically considered describing thoughtfully and with evidence how the project (or its design/evaluation) impacts (or may impact) users, a community of stakeholders, the organisation, etc. The **project requirements** are discussed and documented, including reference of how requirement elicitation was conducted. Requirements documents (e.g. user stores, scenarios, epics, or other appropriate format) are included in the submission for reference. The **release plan** is realistic and presented with high quality and intuitive illustration (e.g. diagram, table, etc) and richly described – complete, coherent and clear. The **remaining phases** of the project are distinctively outlined – showcasing consistent coherence for the remaining iterations. Backlogs (e.g. user stories, etc) are enumerated and thoughtfully described. |
| **Meets Expectations (50-75)** | Good description of context (the nature of the business or organization, the sector which it operates) and the goals listed are easily connected to the context. The project goals are explained with consideration of the impact on the organisation, the industry sector and the community. Feasibility is well-written with good explanation of the different factors that (technical, schedule, logistics, etc) that affects/may affect the project. There are obvious omissions that may negatively impact the project. The mitigation strategies are sufficiently described. The situations that needed/will need mediating, the existing/potential challenges the team experienced or will expect to experience are presented. These are paired with a good description of how to deal with these situations. The most obvious ethical implications are mentioned with some attempts to extend the reflection to larger societal issues. Project requirements are presented, but there may be lack of detail on how these were collected or derived from discussions with the client and stakeholders. A release plan is described in some detail but there may be gaps, inconsistencies, or missing references, so that it is hard for an external reader to judge on the credibility of the plan itself. The quality of the representations (graphs or diagrams) is acceptable but there is margin for improvement. |
| **Below Expectations (under 50%)** | The Context and Goals of the project are not described, or the description is so vague and lacking that is virtually impossible to understand what the project is about, and the work aims to achieve, and why.  Feasibility is not discussed, or feasibility issues are dismissed without a credible analysis. Mitigation strategies are consequentially missing or irrelevant. Risk assessment is not discussed, or potential risks are dismissed with no reason instead of being thoughtfully analysed. Ethical implications are not discussed, or potential risks are dismissed with no reason instead of being thoughtfully analysed. There is no evidence of careful plan, or documentation of requirement elicitation actions. Requirements (if given) are just stated with no mention to how they were obtained, and no clear link with the goals and scope. There is no discussion clarifying the project’s scope, so it is impossible to say what the students aim to deliver, what is a minimum acceptable deliverable, and what is out of scope and will not be addressed. No formal release plan is provided, or the plan given is clearly not grounded in planning and scoping activities. No plan for phase 2 (IFB399) is given, so it is not clear what the project will ultimately deliver. |

**Statement of contribution**

Note: this section is optional, and it is here to allow the team to declare uneven contributions. If you agree all team members participated with equal commitment and workload, you do need to include this section. If however there were obvious differences between team members’ contributions, please let us know who did what. **Important:** do **NOT** give us weights or percentages. We are not interested in statements such as ‘team member X did 80% of the work’. Rather tell us who did what, so that we can express a fair mark for everyone based on the volume and quality of the work we see and after taking into due consideration **personal circumstances, such as health issues**. The statement will include one table as the one below **for each team member**. Each table should be **max 100 words**. If you do not agree on (one or more) other students’ declarations, please let us know, as we will call the team in for discussion.

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| Name \_\_\_\_ | Role(s) in the team |
| Brief description of tasks and responsibilities in the project. If you were solely or mostly responsible for one or more sections of this report, please tell us which one(s). | |
| I declare that the above is a truthful description of my contribution. I also declare that I [agree/do not agree] with the statements below from my team mates. | |

**Section 1.1 Project Context, Goals, Scope**

This section should introduce the project, its context and its goals. In the guide below we will write this as it would apply to a development project, and you should make the obvious adjustments where necessary for your particular project type. Begin with introducing:

* The domain and/or industry sector
* The client and their business goals
* The technical context of the application and its inputs

After, fully explain the project and its goals. We suggest that you begin with a brief discussion of your rationale for breaking up the project as you have done, and why some aspects have been prioritised over others.

**Section 1.2. Feasibility Analysis, Mitigation Strategies, Risk Assessment and Ethics**

In this section, you may expound on the rationale of breaking down the project by presenting a discussion of feasibility concerns. What are the different factors considered by your team that lead to the current state of the project goals – technical, scheduling, constraints and other considerations?

In this section, present the evidence that you have adequately explored the domain in which you are working – that you have considered what is already out there, the challenges that are routinely faced in this domain, mitigation strategies you will implement (or have implemented) as well as consideration of the ethical implications and risk assessment of carrying out the project if any.

Ultimately, detail here the general feasibility of the project and the work that you have proposed. The form of this section will vary markedly depending on the type of project being undertaken – in some cases, this may be in the form of market analysis, a literature review, or a detailed technical discussion relying on some throw-away prototyping.

**Section 1.3 Project Plan and Progress**

Detail the overall release plan for the work over the two semesters. Illustrate this plan using a table or diagram, then explain how this will be carried out. As a guide, this will probably involve 1-2 iterations in IFB398 and another 2-3 in IFB399. Thus, in this section, the plan of your next phase (IFB399) should be clearly illustrated and explained as well.

The illustrated project plan should be complemented with a very high-level summary, as a numbered list, with each item describing the focus and approximate timing of each release. Normally a release consists of several iterations, but given the restricted nature of the scope of this project, we are quite happy with one based on individual iterations. Understandably, a portion of this plan may have already been conducted in the writing of this report. You may indicate so.

After this initial high-level overview, we should see more details of the user stories which feature in work that has appeared to date, and which are planned for the first release/iteration in IFB399. You should also link from these stories to more extensive descriptions as part of your submission structure. We would certainly expect to see a full list of user stories (or other relevant requirement elicitation and description tools, e.g. scenarios) for the whole project included in the submission, along with their priority and where appropriate, the associated estimates.

**Section 2. The Artefact (20 pt)**

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| **Marking criteria: The Artefact (a.k.a. Project Outcomes) [what you are delivering to the client] (20/40 marks) (remove this table before submission)**  Learning Outcomes: 1, 2, 3, 4 | | |
| It is very difficult to provide a guide to writing this section in a way that covers all the possible project types. We will, here, try to give guidance for a few alternatives, but you may need to **seek additional clarification from your tutor prior to submission**. In each case below, the guidance is provided in the form of a numbered list, and these might reasonably correspond to subsection headings. Please feel free to make liberal use of images relating to the artefact throughout the report. These might include screenshots of an App, sketches of a design, storyboard of a game design, result graphs from particular technical explorations, or the workflow diagram from a BPM project. There are of course many other alternatives here. As a general rule, we want to know ***what you are developing***(is it a game, an App, a written or oral report, …); *what* ***technical or organisational approach***you are taking (platforms/frameworks involved, sources consulted, guidelines or standards followed, …); *what* ***quality metrics*** *you are adopting (*how do you know if your code is correct, your design address the requirements, your findings are sound and credible, …). | | |
| **Criteria For Excellence (Over 85%) All that is detailed below (Beyond Expectations), and in addition:**   * The deliverable is included in the assessment submission, and there is enough detail to allow an educated person to install and run (or otherwise operationalise) the deliverable. * The team made outstanding progress towards their final deliverable. In case of a development, there is a working prototype. If a design, several iterations are documented, and there is evidence of alternative solutions discussed and presented to the client. * The project complexity is such that alternative approaches need to be considered, and have actually been considered, before committing to a design/approach/architecture * There is clear evidence that the project is quality led, with relevant metrics established beforehand, and tested throughout the progress, rather than patched as an afterthought | |
| **Beyond Expectations (75-100)** | The artefact [the business analysis/interactive design/game/data mining study/prototype/other] is evidence of a **thoroughly professional approach** and is virtually indistinguishable from a professional project.  The initial artefact is of high-quality and the level of detail presented, illustrations, and descriptions reflects the difficulty of the project, the nature of the project environment and any delaying factors beyond the control of the team.  The **evidence** [depends on the project type] presented strongly correlates and are consistent with statements and/or claims (e.g. from previous sections regarding the plan, scope, context). Evidence may include, if applicable, well-organised mock-ups, high or low-fidelity prototypes, initial proof-of-concepts or demonstrators.  There is critical discussions of **alternative approaches or sources** consulted in relation to the project (e.g. industry standards, state of the art algorithms or architectures, current recommended practices for the given project type).  The artefact is of proven high-level quality, demonstrated by pertinent **quality metrics** (e.g. unit or acceptance tests, usability study, playtest, literature analysis) and there is confidence that the team may use it is a strong basis for subsequent iterations/progression and eventual completion and delivery of the project. |
| **Meets Expectations (50-75)** | The artifact is of a generally acceptable level given the project context and available resources. There is evidence of a professional and diligent approach, reflected in the quality of the material presented.  The current development is in line with the stated requirements and project plan, but there may be lack of clarity as to what is currently functional, what is in mock-up state, what is final or draft, etc.  There is a discussion detailing the approach taken, but there may be a limited reflection on alternatives, and it is not always clear if alternative (approaches, frameworks, platforms, architectures, designs) were considered at all.  Some quality metrics are presented, giving confidence that the artefact is formally correct (e.g. bugs are tracked and tested) but it remains not always clear if the team is systematically testing or planning to test for acceptance and high level quality (e.g. usability, accessibility, play experience). |
| **Below Expectations (under 50%)** | Overall, the product delivered is not in line with what would be expected from a team of IT/Games students after considering all the relevant circumstances.  The artefact is in a very preliminary stage or non-existent, and it is impossible to judge if this will form the basis of a successful release by the end of phase 2.  It remains unclear what is being developed, what platforms are used and why, and the evidence presented (if any) is not in a state to afford any quality assessment (e.g. unit testing for code, or usability testing for interface designs). |

**Recommended structure for Section 2, depending on your project type**

We provide below recommendation for 4 common project types: **Software Projects** (this are typical project developments, including Apps, Web developments, Desktop applications, Data science projects, etc.) **Technical Exploration and Design Projects** (these include projects involving a conspicuous UX design or tech envisioning aspect); **Games/Serious Games projects** (software development specifically oriented to interactive simulations and games, unlike standard software projects, tyese may include key aspect of narrative creation, animation, 3d/2d modelling); **Consulting Projects** (such as business/process analysis, research and reporting, workflow optimisation, etc, these may include very limited development or none at all, and focus on exploring a business case and recommending IT based improvements/deployments).

**If your project is a Software Project: Your description should include:**

1. ***Architecture:*** This section should cover the technical architecture of the system including aclear architecture diagram showing the relationship between the principal components of the system.
2. ***Technical Description:*** This should include descriptions of important technical aspects of thesystem, and where appropriate, discussion of key classes responsible for the most important functionality. We do not want to see huge UML class diagrams, but tell us how you have solved the problem, using short and focused code samples as appropriate. In particular, if there is something innovative, tell us about it. It is not, however, our job to decipher the system and the code, but rather your job to guide us through it all.
3. ***Functionality:*** You should then describe the implemented functionality of the system. Thisshould of course refer back to the user stories and release plans, but here the advantage is that you can illustrate your progress with screen shots. Again you should be guiding us. We don’t yet require a user guide, though inevitably some of this description will have a similar form.
4. ***Quality and Metrics:*** Finally, provide us with some evidence of how well you have done things.This should include summaries of unit test and acceptance test statistics, and may include code quality metrics, burn down charts showing progress and any other summary information that will help us to see that you are performing as a professional team.

The corresponding section for other project types will vary significantly in the evidence which is provided, but we will again expect this same sort of structure.

**If your project is a Technical Exploration and Design Projects:**

1. ***Structure:*** This section should outline the problem in some detail and then cover in summaryform the alternatives considered.
2. ***Technical Description and Process:*** This should include detailed descriptions of theapproaches taken, each non-trivial prototype, exploration or design created, and a detailed analysis of the choices that you have made based on these explorations. So, here we want to see details of each alternative, and then a discussion of why some are better than others. As with the Software Project, this may include code fragments, but it may also include design sketches, mock ups and a range of other components. Your task, as before, is to guide us.
3. ***Preferred Approach:*** In item 2 above your task was to brief us on the range of alternativesconsidered. In this subsection, we want to see a much more detailed coverage of the approach that you as a team believe is the best one. This should include a discussion of the technical and/or usability considerations which make this solution better, and again you should use screenshots, design sketches and other visual aids to make it clear to the reader what you have accomplished. If in doubt, please check a draft with your tutor.
4. ***Quality and Metrics:*** Finally, provide us with some evidence of how well you have done things.This will include some of the same approaches as for the software project – the completed user stories and any other summary statistics that apply – but the main issue here is to give full detail of the analysis you summarised in section 2. So we explored a range of alternatives and this is what we found out about each alternative. This is not readily captured in the same way as a unit test report, so work with something less quantitative, a bullet list description of the strengths and weaknesses. This need not be very long – a list of two or three positive and two or three negative findings cogently expressed is much more valuable than pages of text. So as well as reporting progress relative to requirements, this section should also be seen as a way of giving much more detail about the analysis described in section 2 above.

**If your project is a Game Development / Gamified System / Serious Game Development**

1. ***Structure:*** This section should outline the elevator pitch, target audience and/or whether the primary focus is education, training, simulation etc., platform, the domain (Serious game, gamified system, interactive environment or/and game genre) and a brief summary of how the elevator pitch fits the domain.
2. ***Condensed Game Design Document:*** Think of this section as a condensed version of a Game Design Document (GDD). A GDD is an extensive document that serves as the blueprint of the design of your game. As a subsection of the Interim Report, show us sketches, concept art, HUD and UI design, level design diagrams and control diagrams. Provide examples of gameplay in how the player progresses and gameflow (i.e how the challenges increase, systems such as levelling up, collectibles) all function in your current design. Depending on the domain and audience provide information on narrative design and characters. Make sure to supply reasoning for decisions made that make sense for the project’s primary focus, domain, and iterations that you have made along the way. We want to see details of the process and alternative routes the team could have taken, and then a discussion of why some are better than others. As with the Software Project and depending on the fidelity of the game/gamified system (agreed with the client), this may include code fragments; but it may also include design sketches, mock-ups, low-fidelity prototype and a range of other components as concrete representations of the design/development journey. Your task, as before, is to guide us.
3. ***Current Project State and Direction:*** In this subsection, we want to see more detailed coverage of the approach that you as a team believe is the best one in the design and development of the game/gamified system. This should include a discussion of the technical, usability, user experience and gameplay considerations which make this solution better, and again you should use screenshots, design sketches and other visual aids to make it clear to the reader what you have accomplished. If in doubt, please check a draft with your tutor.
4. ***Quality and Metrics:*** Finally, provide us with some evidence of how far you have come in the low-fidelity prototype and major issues to address in the future.This will include some of the same approaches as for the software project – the completed user stories and any other summary statistics that apply – but the main issue here is to give full detail of the analysis you summarised in section 2. How did the team track progress and manage deadlines? Was there internal QA testing conducted and what were some major issues in both usability and user experience? You may present diagrams and/or tables to illustrate this information however this may not readily capture the details you want to convey. So, work with something less quantitative, a bullet list description of the strengths and weaknesses. This need not be very long – a list of two or three positive and two or three negative findings cogently expressed is much more valuable than pages of text. So as well as reporting progress relative to requirements, this section should also be seen as a way of giving much more detail about the analysis described in section 2 above.

**If your project is a Business Analysis or Consulting Project:**

The final example is given for a business analysis project or consulting report. Here the artefact will itself often be a report, but we should emphasise that the approach remains similar: we need a report that tells us about the report.

1. ***Structure:*** This section should outline the problem in some detail and then cover in summaryform the components of the project and how you have structured your artefact. You shall discuss here what you will deliver (a report, a presentation to stakeholders, a proof-of-concept demonstrator, a combination of the above, …) and discuss how this was agreed upon with the client.
2. ***Description and Process:*** This should include detailed descriptions of the process employedfor each section, the range of stakeholders interviewed, an overview of the sources consulted and why some inputs were given greater weight than others. Your task, as before, is to guide us through the alternatives considered.
3. ***Preferred Approach:*** In item 2 above your task was to brief us on the range of alternativesconsidered. In this subsection, we want to see a much more detailed coverage of the approach that you as a team believe is the best one. This should include a discussion of the advantages of this approach, and you should use screenshots, workflow diagrams, (simplified) organisation charts and concept maps and other suitable visual aids to make it clear to the reader what you have accomplished. If in doubt, please check a draft with your tutor.
4. ***Quality and Metrics:*** Finally, provide us with some evidence of how well you have done things.This will include some of the same approaches as for the software project – the completed user stories and any other summary statistics that apply – but the main issue here is to give full detail of the analysis you summarised in section 2. In this case, we would expect some summary statistics on the number of people consulted and the weight given to their views, where appropriate, summaries of the primary and secondary source articles consulted and more extensive details of any workflow modelling undertaken.