Project Management Case Study

SIT758 Virtual Reality on Mobile Platforms

Introduction

This unit has a mobile virtual and augmented reality product development theme that runs throughout the unit in the form of several staged assessment tasks. This is the first task in that sequence.

While these tasks are submitted individually you will need to work with peers in your class who will take on the other roles required by the task. Interactions between the roles within the project team will often take place during classes. Failure to participate in meetings of team members will result in a negative assessment with respect to professional conduct and teamwork learning outcomes.

You will be assigned one of the VR application contexts from the context list provided. You will need to prepare appropriate initial project management documentation required to move onto the next stage of the application creation process (the design phase).

During the week 2 class session you will get a chance to interact directly with your client. This is your opportunity to apply the enhanced reality design process, as covered in the first week of the unit. You need to use this opportunity to both clearly understand the requirements of the client, and to suggest opportunities to apply innovative mobile augmented and virtual reality components towards addressing their needs. In particular, you will need to identify at least three enhanced reality components that you can employ in your own unique design for a solution that will achieve some of these requirements.

In the event of the client not being available, one of your peers will be nominated to represent the client (and similarly you will also serve as the client for another of your peers). Clients use their discretion in interpreting the project brief, assisted by the teaching staff if required.

In preparing for this assessment task, you will play the role of project manager. Meet with your client to determine the requirements for the mobile VR/AR application. Draw up an initial project development plan containing sprints that iterate through the development of the features most highly prioritized by the client. These sprints should include several design/development/prototyping stages (which you will undertake in the first part of the unit) and some development and testing stages (which you will instruct one of your peers on how to complete).

Submission Details

Due Date

End of week 3.

Format of submission

Written report produced by completing the sections listed in the template provided. Citations and references need to be provided.

Submission method

Submit using the appropriate online unit site assignment drop box.

Task description

Your role for this task is: **Designer and Project Manager**. You will be allocated a project concept. Please check the assignment section of the unit site during the week 2 class to determine of which concept you have been allocated in this role. Identify the requirements for your concept through vigorous discussion with your client, and develop an initial design to satisfy these requirements. Create a plan for building an application according to this design.

Assumptions:

- Weeks 3-7 are opportunities to learn more about specific AR and mobile VR component technologies, to refine the design, and develop prototype implementations to guide your developer.
- You need to prototype at least 3 components from those demonstrated in the unit notes. These cannot be components that you submit for assessment for the weekly prototypes.
- You will hand the plan over to a developer (one of your class) for implementation and testing during weeks 8-11. You need to leave them enough time to perform user experience evaluation during this period. Ideally you should provide them with working prototypes so that their role only is to integrate these into a working product, fine tune functionality, test and evaluate.

For your allocated project task *create a document (report) using the template provided on the unit site* that includes the:

- Requirements analysis: identify what the requirements for the assigned project concept are, in order to design an application that will meet these needs. You will need to elicit these requirements from your assigned client. Some additional research (in particular, review the AR and mobile VR technologies that will be covered in later week), and consultation will be required to complete this. Ensure that the use of AR or mobile VR as a solution is clearly defined within the list of requirements.
  It is your responsibility to ensure that the requirements are correct, realistic and consistent by negotiating with your client. Do not accept any information provided without evaluating it critically.
- A project development plan: a description of the steps of development ideally consisting of several short weekly sprints with clearly defined goals for each task. The functionality of the project after each sprint should be clearly defined in a way that can be directly confirmed. This plan should be usable as a way of progressing the design, and then as a development schedule and should have realistic estimates of time for each stage that is consistent with the timing for the next assessment tasks (developing the training manual, and implementation of the system described in the training manual).

Your report needs to demonstrate the use of the project management conventions, approaches and strategies covered in the unit. Review the remaining assessment tasks for this unit in order to best plan the timeline that you and your developer will need to follow.

Working arrangements

This is an individual assessment task although exchange of ideas is essential to achieve the information and experience you require to complete this task.

Marking Rubric

Criteria	Poor 0 points	Acceptable 2 points	Excellent 5 points
Requirements relevant to technologies covered in this unit. Accurate description of range of relevant, recent technologies.	No submission. Report misrepresents The technology. Material is obsolete or irrelevant. No engagement with other stakeholder.	A list of requirements is matched with the tools and technologies described in the unit outline. Context is given suggesting ways in which user stories can be completed.	Technologies described represent recent commercial offerings or approaches being explored in research laboratories. Relevant essential details are provided and insights into trends is provided in the conclusion.
Relevant requirements identified.	No requirements, or lacks evidence to demonstrate requirements elicitation. No engagement with other stakeholder.	Requirements are provided but limited evidence of effective questioning of client is provided. Requirements are largely just features to be included.	Requirements are clearly defined, prioritized, and evidence of discussion with clients regarding role and need for each requirement. Core requirements are identified that are consistent across multiple features of the experience planned.
Global citizenship consideration of	No submission. No explicit consideration of	Needs of the client and one particular target audience	Relevant discussion relating to professional

implications of technologies for diverse communities	professional, social or ethical implications. Considerations purely limited to opinion with no support through external references. No engagement with other stakeholder.	are considered. Some but minimal investigation into previous attempts at achieving related requirements.	practices, ethical uses of the technologies in diverse communities and cultures, supported by relevant and reputable sources. Particular needs of stakeholders are explicitly investigated and incorporated.
Effective communication of technical topics using appropriate professional conventions.	No submission. Poor presentation (formatting, spelling, grammar). Meaning of sentences cannot be determined.	Fields in the template are filled out, but consistency between the different elements is limited. Content may be generic in nature.	Document effectively presents requirements and documents relevant technologies using appropriate terminology and in a way that is suited to later stages of development.
Timeline for project development plan is achievable.	Plans shows no indication of relating outcomes described to each of the tasks listed. Activities planned each week have little resemblance to the topics and activities during classes and practical sessions in those weeks. No engagement with other stakeholder.	Plan describes development of prototype elements appropriate to unit content for design weeks. Developer activities are defined but will need refinement based on experience achieved during design phase.	Plans provides for prototype development during the design stage by the designer, and has specific and achievable tasks for the development stage. Includes opportunities for testing and refinement as well as any publication requirements. Clear evidence that project requirements are mapped to tasks and outcomes.
Project tasks are well defined.	Task descriptions are vague or open-ended. Tasks defined concentrate on aspects that are not priorities or that are not relevant to unit content.	Tasks have defined outcomes. Tasks match requirements. Tasks may still be too ambitious, or not completely satisfy priority user stories. Tasks may be over-ambitious (not achievable in a single session).	Each task has a clear, measurable outcome that can be validated by an external observer. Tasks can be achieved in a single session, or are decomposed into such. Tasks are linked to project requirements and stories. Sufficient opportunities exist to integrate and unit test components.