RecyClic

Team B03

Deliverable E – Project Plan and Cost Estimate

Engineering Design – GNG 1103

Team Members

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Abstract

This project deliverable focuses on devising a work plan articulating means by which the team will achieve their objectives, the forecasting of potential risks as well as the estimation of project costs needed to develop the first project prototypes. The prototypes mentioned in this deliverable are based on the group conceptual design illustrated in Deliverable D. In this report, tasks will be distributed amongst team members in the pursuit of optimal team performance. Following the allocation of tasks, there will be an identification of possible what-if scenarios, as well as the making up of contingency plans to minimize their impact. This document will also include a bill of materials required in the realisation of the project models.

Trello Subtasks:

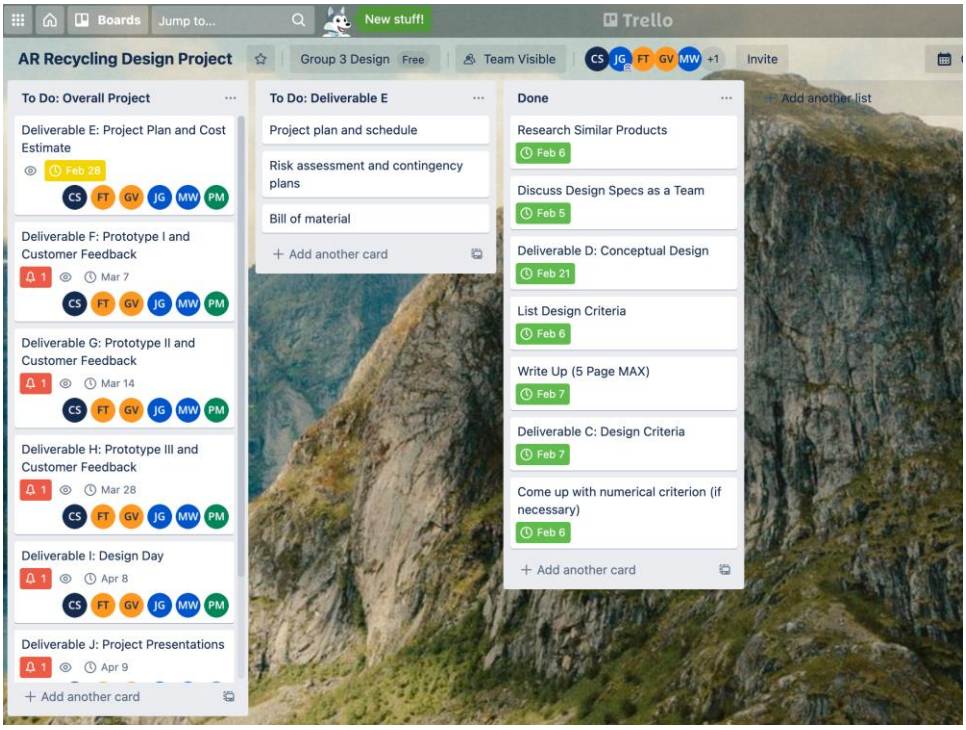

Table of Contents

List of Tables

1. Introduction

In this stage of the project, the team is undergoing strategic planning that will guide us further towards the completion of the project. This deliverable presents a comprehensive project plan that lists and explains each upcoming task- including its duration, dependencies and the team member responsible for it. The deliverable also outlines risk assessments and contingency plans for the coming weeks. As the team progresses towards the prototyping stage, an essential step that will help us work within the $100 project budget, is the creation of an expenditure spreadsheet/ bill of materials. This resource will be created by the team and included in this deliverable. Essentially, the team needs to create:

- A project plan for the upcoming tasks and deliverables
- A risk assessment table and practical contingency plans
- A bill of materials

2. Project Plan

All tasks are assigned more time than necessary, this will leave room for error when it comes to working on the more complex protypes. The dependencies are based on what previous listed task does the task depend on. For instance, the development of the 1st prototype depends on the completion of the research on unity and image recognition. The task ownership is based off who is responsible for submitting each task.

Number	Task	Dependencies	Owner	Duration	Due Date
1	Deliverable E: Project Schedule and Cost	None	James	Milestone	2/28/2021
2	Research of Unity and Image Recognition	None	Everyone	3 days	3/2/2021
3	Build First Prototype	Task 2	Everyone	8 days	3/7/2021
4	Deliverable F: Prototype 1 and Customer Feedback	Task 2 & 3	Moyin	Milestone	3/7/2021
5	Client Meeting 3: 1st Prototype Presentation	Tasks 2, 3 & 4	Everyone	7 days	3/12/2021
6	Iterative Design for 2nd Prototype	None	Everyone	7 days	3/14/2021
7	Deliverable G: Prototype II and Customer Feedback	Task 6	Patrick	Milestone	3/14/2021
8	Iterative Design For 3rd Prototype	None	Everyone	14 days	3/28/2021
9	Deliverable H: Prototype III and Customer Feedback	None	Gabrielle	Milestone	3/28/2021
10	Deliverable I Design Day	None	Franck	Milestone	4/8/2021
11	Deliverable J: Project Presentations	None	Chelsea	Milestone	4/9/2021

12	Deliverable K: User Guide	None	James	Milestone	4/11/2021

3. Risk Assessment and Contingency Plans

All projects are always associated with some risks and it is important to review a project's risk to plan and act accordingly. This section will outline the potential risks associated with our AR-recycle app project. The types of risks possible range from risks associated with the members to software risks. These risks are classified by their probability of occurring, and impact it would have on group's progress.

Moreover, contingencies are suggested to deal with the occurrence of such risks and their impact. All risks and contingency plans are discussed in the table below.

Risks	**Probability of Occurrence**	**Impact**	**Contingency**
Failing to respect project deadline.	Moderate	Fairly high	Follow project plan on TRELLO and if need be contact TA or professor for help.
Low communication and cooperation between team members due to virtual restrictions.	Very low	Moderate	Virtual meeting each week and daily exchange on team's discord channel.
Failing to communicate updated code file to team member.	Low	High	Each team member shall work on the latest code file in the team's Github.
Team conflict	Very low	High	Use the strategy stated in team contract to solve team conflict which is to talk in group and involve a TA if need be.
Losing all our work or code due to failure to save.	Low	Very high	Using platforms like Github for backup.
Team member failing to fulfill an assigned task.	Low	Moderate	Team member should inform the team as soon as possible and the rest of the team will take care of the task

Compiling errors	High	High	Contact TA or PM for help.

Table 2. Risk Assessment and Contingency.

4. Bill of Materials

Bill of Materials					
Item #	**Part Name**	**Item Description**	**Quantity**	**Unit Price**	**Amount****
1	Unity Student or Personal Plan	Allows to build the phone application	6	Free	Free
2	AR Foundation	Allows android compatibility in the design	6	Free	Free
3	Microsoft Paint 3D	For creating icons, create 2D models, and edit 3D materials	6	Free	Free
4	Unity Low Poly Vegetation Pack by LMHPOLY*	Provides 3D models for the game component	1	$0.40	$0.45
5	Unity Polyverse Skies by BOXOPHOBIC*	Provides a background for non-scan components of the application	1	$0.75	$0.85
6	Unity Asset Cleaner Pro by Game Dev Tools*	Warns of unused assets in the project	1	$1.20	$1.37
7	Unity Script and Other Assets Budget (estimate)	Budget for animations (like loading screens) and complex search engines	1	$40.00	$45.20
				Total	**$47.87**

*Unity Lunar New Year Discount applied (96% off)

**GST/HST for Ontario applied (13%)

5. Conclusion

Overall, our team has successfully developed a project plan which will serve as a primary document that members of the team can refer to, as we proceed with upcoming tasks; furthermore, we have also established a risk assessment and collection of contingency plans as well as a bill of materials. These will guide the team towards the planning and completion of all upcoming tasks and enable us to stick to the given budget. We will also be able to respond with effective contingency plans should we encounter any difficulties.