GNG 1103: Deliverable E

GNG 1103-F04
Submitted by: Group 2

Dennis Sun (300111813)
Lauren McDermaid (5256108)
Lauren DaLuz (8805144)
Maude Tremblay (8862732)
Karly Piro (8584926)

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University of Ottawa - Faculty of Engineering

Table of Contents

1.0 Introduction

To ensure our project meets client schedule needs, in addition to meeting budget goals, it is crucial for our success as a team to have a dedicated plan. The objective of this plan is to guide us to achieve our three prototyping milestones on time and to a desired complexity. The plan will also identify time for testing each prototype. Included in this plan will be project risks and respective contingency plans for each risk, to allow extra time to complete milestones if problems arise. All of the information was captured visually in a Gantt chart identifying tasks, owners, durations and milestones. Additionally, a bill of materials was created to help predict project costs and to ensure the project remains within budgetary constraints.

2.0 Project Plan

Table 1: Identified Project Tasks

Task #	Task	Duration	Start	End	Depend -encies	Resource
1	Deliverable E	7 Days	Feb 9,2020	Feb 16,2020		Team
2	Cost Estimate	6 Days	Feb 9, 2020	Feb 15,2020		Lauren D
3	Contingencies	6 Days	Feb 9, 2020	Feb 15, 2020		Maude
4	Gantt chart	3 Days	Feb 9, 2020	Feb 15, 2020		Lauren M
5	Project Plan and Tasks	3 Days	Feb 9, 2020	Feb 12, 2020	5	Dennis
6	Work with Unity	10 Days	Feb 17, 2020	Feb 27, 2020		Team
7	Deliverable F Prototype 1	7 Days	Feb 24, 2020	March 1, 2020		Team
8	Ensure Scientific Accuracy	1 Days	Feb 28, 2020	Feb 28, 2020	1	Lauren M
9	Create Basic Scene in Unity	4 Days	Feb 26, 2020	Feb 27, 2020		Dennis, Karly, Maude
10	Test Scene for any problems	2 Days	Feb 27, 2020	Feb 29, 2020	9	Lauren M , Lauren D
11	Fix Problems	1 Day	March 1, 2020	March 1, 2020	9,10	Lauren D Maude
12	Present Prototype to Client and gather Feedback	1 Hour	Feb 28, 2020	Feb 28, 2020	9	Dennis , Karly
13	Deliverable G: Prototype 2	7 Days	March 2, 2020	March 8, 2020	7	Team
14	Add mini-games and	4 Days	March 2,	March 5,		Dennis,

	Challenges		2020	2020		Maude, Lauren M
15	Verify Games and Challenges Work	2 Days	March 6, 2020	March 7, 2020	14	Karly, Lauren D
16	Check Scientific Accuracy	1 Day	March 7, 2020	March 8, 2020	14	Lauren M
17	Gather Client Feedback	1 Hour	March 6, 2020	March 6, 2020		Team
18	Implement Changes	1 Day	March 8, 2020	March 8, 2020	17	Team
19	Deliverable H	14 Days	March 9, 2020	March 22, 2020	13	Team
20	Add final problems, timer, and room scale	4 Days	March 9, 2020	March 12, 2020		Lauren M, Maude, Karly
21	Verify Scientific Accuracy	1 Day	March 13, 2020	March 13, 2020	20	Lauren M
22	Gather Client Feedback	1 Hour	March 14, 2020	March 14, 2020	20	Team
23	Implement changes	2 Days	March 14, 2020	March 15, 2020	22	Lauren D, Dennis
24	Gather Client Feedback	1 Hour	March 16, 2020	March 16, 2020		Team
25	Apply Final Changes and Creative Commons Designation	2 Days	March 16, 2020	March 17, 2020	24	Maude, Dennis, Karly
26	Test the Game	3 Days	March 18, 2020	March 21, 2020		Team
27	Make Final Bug Fixes	4	March 18, 2020	March 22, 2020	26	Team
28	Test Game and Fix Problems	2 Days	March 16, 2020	March 17, 2020		Karly, Lauren D
29	Hand in the Project!	5 mins	March 22, 2020	March 22, 2020		

30	Practice Presentation	2 Hours	Mar 20, 2020	Mar 20, 2020		Team

3.0 Gantt Chart

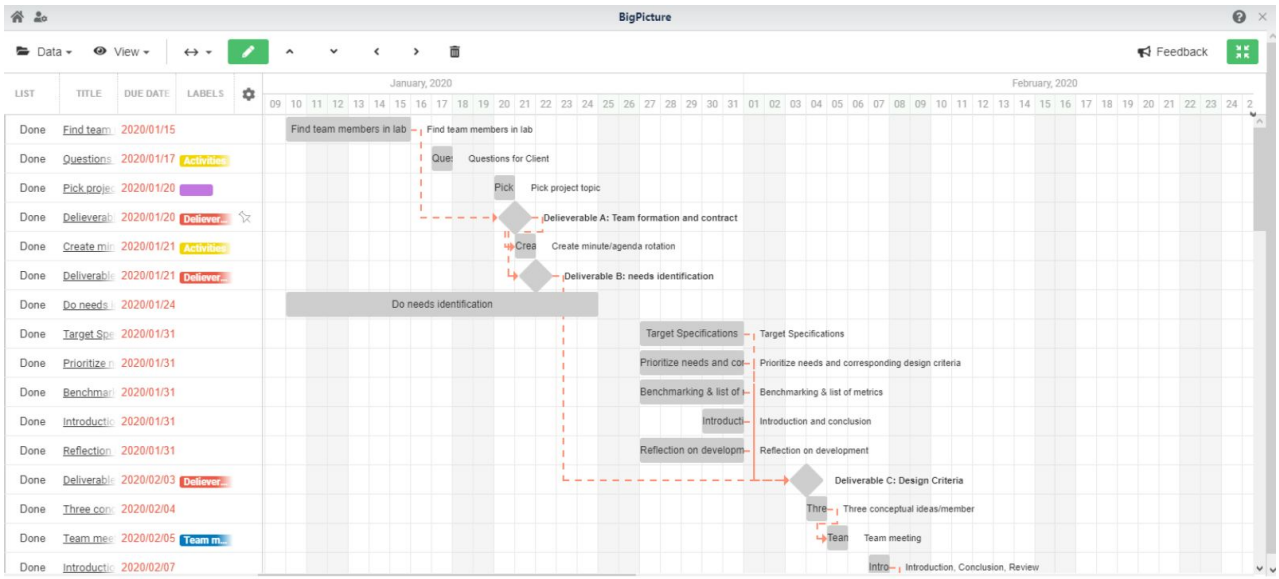

Figure 1: Project Gantt Chart 1

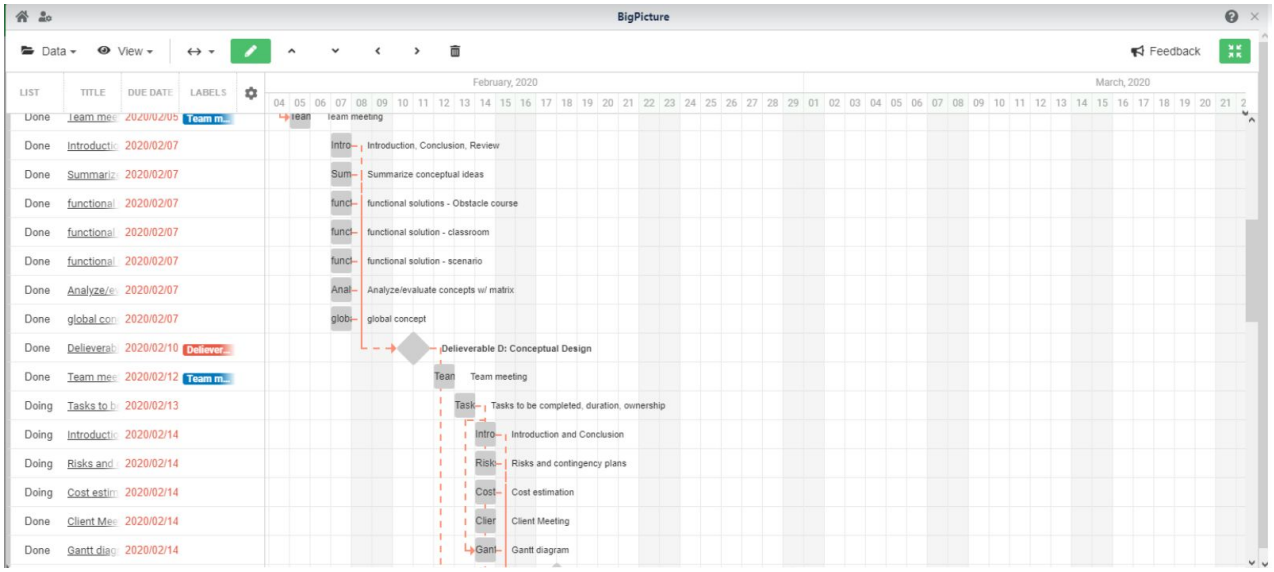

Figure 2: Project Gantt Chart 2

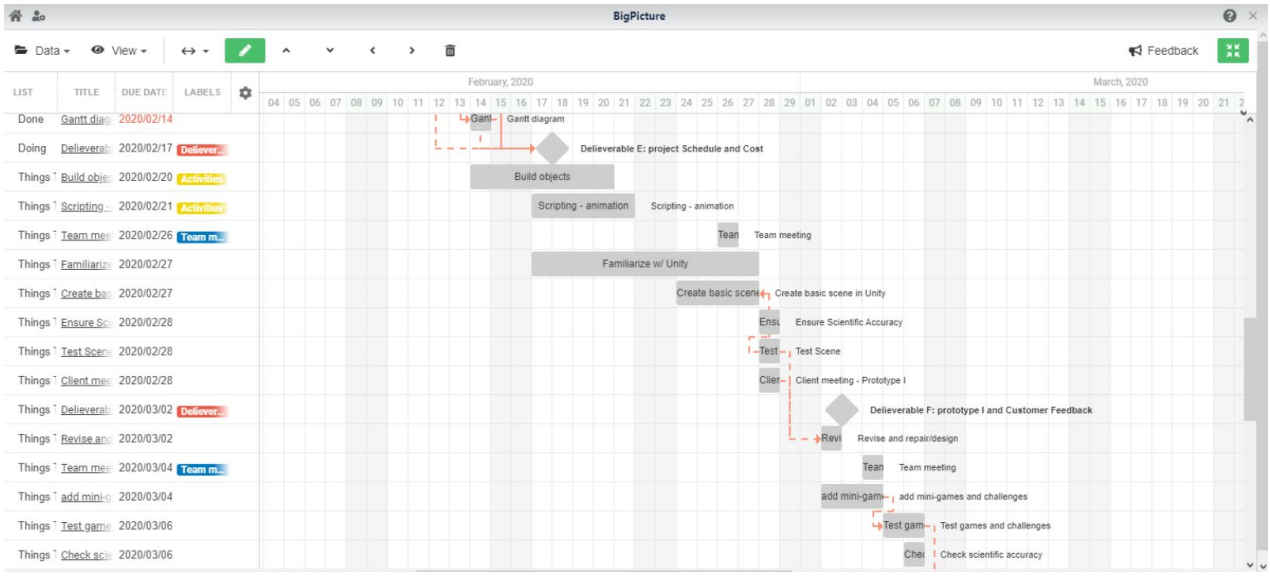

Figure 3: Project Gantt Chart 3

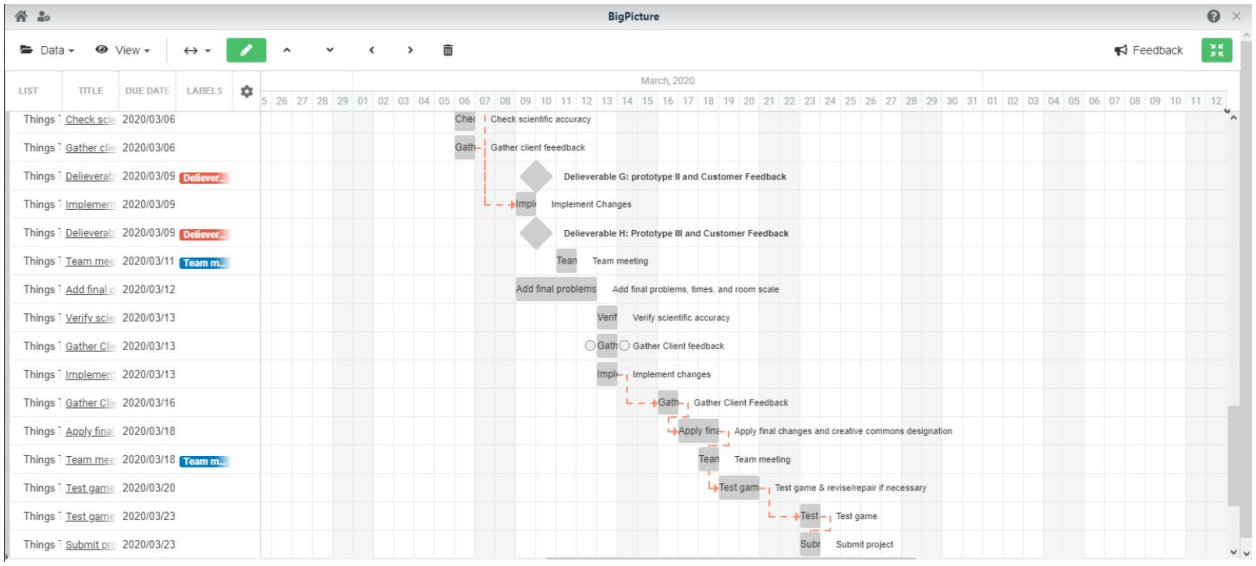

Figure 4: Project Gantt Chart 4

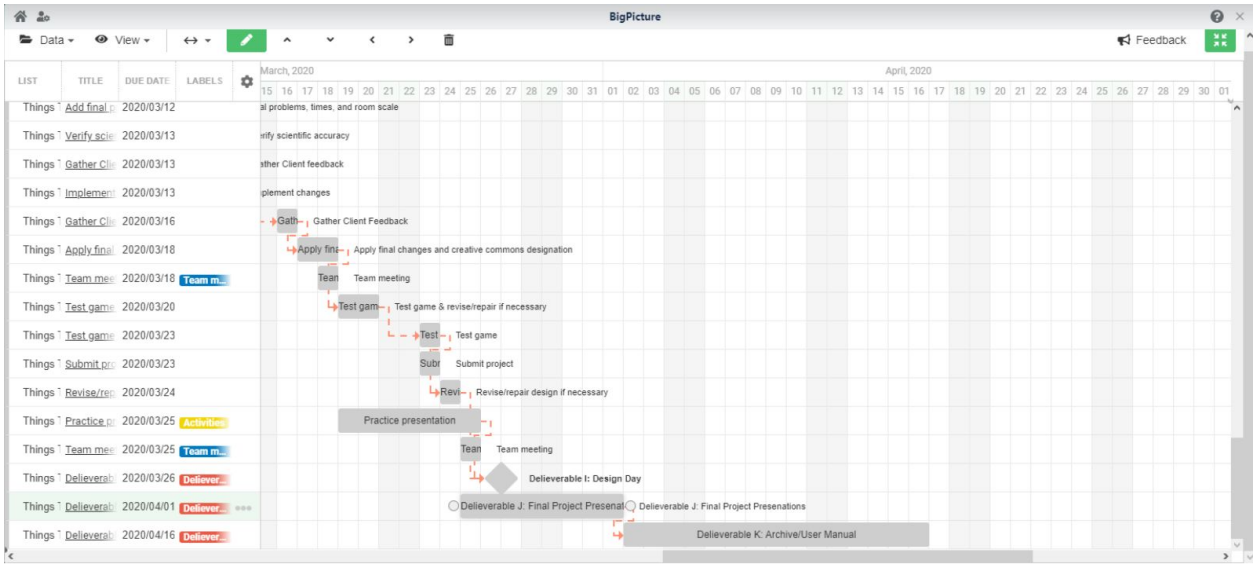

Figure 5: Project Gantt Chart 5

4.0 Project Risks and Contingency Plan

Table 2: Project Risks and Contingency Plans

Potential Risk	Contingency Plan
Deviating from initial project requirements and client needs	- Maintain regular check-ins to ensure the initial project description and requirements are being met and that the project is not deviating from the client's needs. - With every deliverable, the project should be evaluated and a consensus should be reached at weekly meetings to confirm our project is geared towards our end goals. - Regular contact with the client should be kept and meetings with the client should be productive so as to respect their needs and keep them updated with the development of our product.
Longer preparation time with Unity	- Due to the program being new, longer preparation time should be anticipated when using Unity. - When starting to develop the prototypes, tasks should be split amongst people depending on their skills so time is used efficiently.
Overuse of VR device for prototype testing	- The VR device may become very occupied when reaching the testing phase of the project design so it should be reserved ahead of time in order to ensure the prototypes can be tested with reasonable time. - Testing should occur frequently at several stages of the product development so if issues arise, they are dealt with before the final product is to be presented.
Final exams and end of semester projects from other courses	- Due to the heavy course load, weekly meetings should be maintained in order to develop good habits when schedules start to book up with other courses. Meetings will serve as allocated time slots everyone can attend, which will keep the project on schedule.

5.0 Cost Estimate

Table 3: Bill of Materials

Bill of Materials				
Item #	Item Description	Quantity	Unit Price ($)	Amount
1	HTC VIVE Equipment (provided by the University of Ottawa)	1	$0	$0
2	Chemistry Package (Unity Store)	1	$10	$10
3	Bedroom Environment Package (Unity Store)	1	$6	$6
4	Room Clutter (Unity Store)	2	$5	$10
5	Bathroom Environment Package (Unity Store)	1	$5	$5
5	Bathroom Clutter (Unity Store)	1	$7	$7
6	Royalty Free Music	4	$0	$0
Total				$38

6.0 Conclusion

After completion of the project schedule, project risks and cost estimate, a plan has been devised to assist our team to stay on time and on budget. The project tasks were identified and using these tasks a Gantt chart was created. As seen in section 3.0 the Gantt chart visually represented all tasks and milestones along with their respective dependencies. Project risks and contingency measures were identified and included into the Gantt chart to ensure extra time to complete milestones. Finally, the bill of materials identified a current cost of $38 which is far under budget allowing a large contingency for any further Unity packages needing to be purchased.