

Prototype 2

Project Deliverable F

GNG 2101 Group A4.4

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1. Introduction

For this deliverable, we summarized our client's feedback and updated our product design with the newly acquired feedback. We then came up with our second prototype, which is the updated main storyline of our experience. From this prototype, we developed a testing plan to ensure we meet all of our clients' needs. This prototype will be our final storyline and will be used for our final product.

2. Customer Feedback and Updated Product Design

After our third client meeting discussing our first prototype from PD D, the main feedback received for our group concept was to focus on the empathy aspect of our story. That means to make sure that the story is able to let users understand the perspective of veterans and to make sure that our story is accurate and that each event is shown in a respectful manner. Our client also mentioned that the story was too stereotypical and that the story should be changed in a way to highlight the achievements of veterans while also allowing users to put themselves in the shoes of veterans and empathize with the adversities they face on a day-to-day basis. Lastly, our client emphasized the importance of getting feedback and guidance from an actual veteran to ensure that our story is both authentic and impactful. This feedback was important as it gave us well-needed insight on how the story may be perceived by a user. The information provided by the client will be used to improve our storyboard to allow for users to better understand and empathize with the hardships that many veterans face. As such, the objective for prototype 2 will be focusing on the storyboard rather than the gameplay itself, making it authentic and highlighting the experiences of veterans to allow users to better empathize with them.

3. Critical Product Assumptions

For our product, we will assume that the client will have a medium-end computer or laptop that isn't necessarily intended for video games and is used casually. Therefore the following are the acceptable system specifications in order to execute the software:

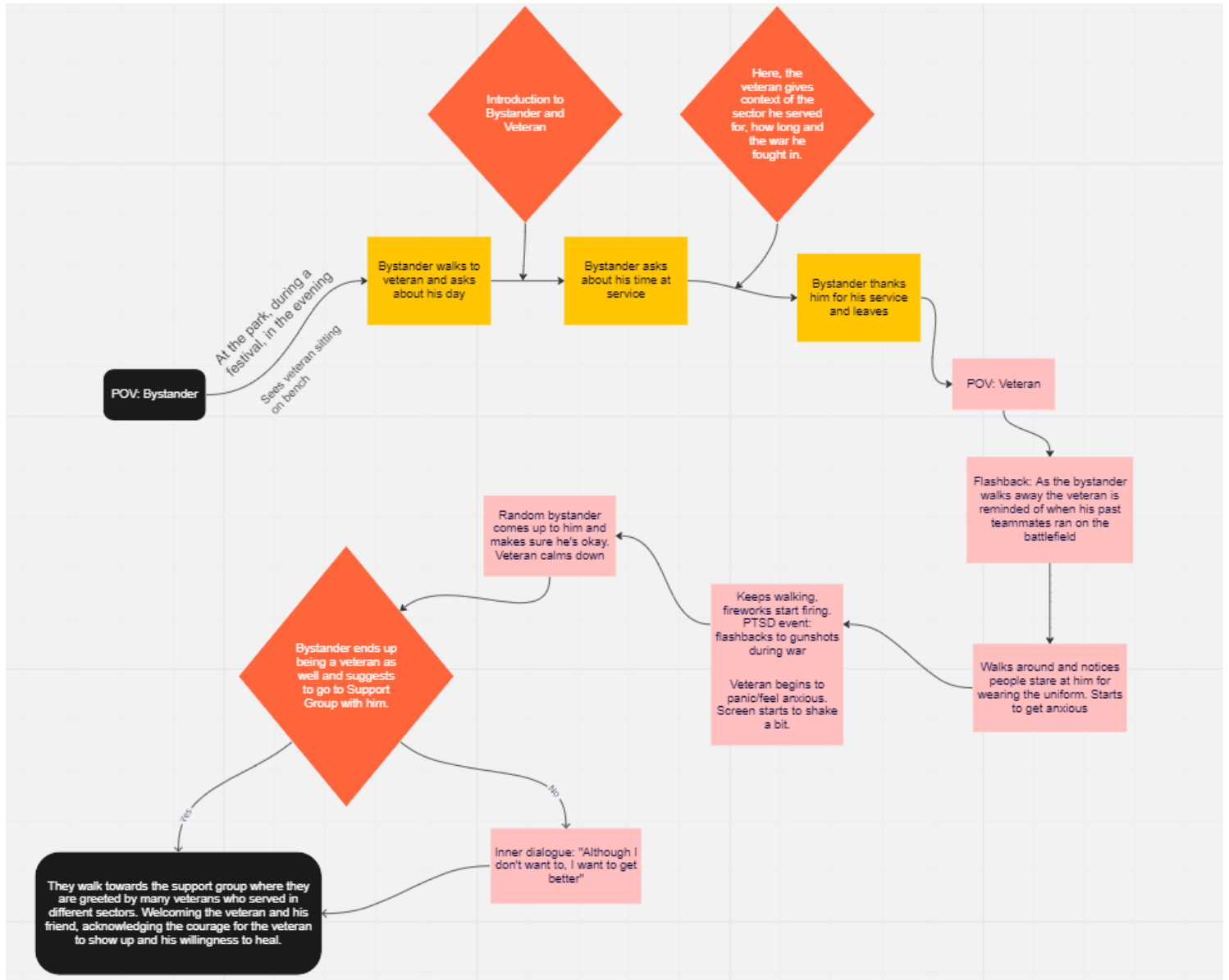
- Operating System: Windows 7, 8, 10, 11
- Processor with QuadCore and 2.0 GHz+
- 4GB of RAM
- 1GB of VRAM
- 2GB of Storage

Note: These specifications were benchmarked from the game "A Story About My Uncle"

The materials needed to create our product will all be available on the Unity assets store. Any documentations and tutorials on how to use Unity and C# will also be available on Unity's website as well as the internet. As for the core functionality of the game, we assume that the user will be able to freely roam the given world as well as interact with the specific items and dialogues given. Furthermore, we will assume to have appropriate functioning audio cues, background music and graphics.

4. Prototype Design II

4.1 Story Prototype



4.2 Gameplay Prototype

Based on some of our gameplay concepts, we came up with the following basic video demo of how the game will look and feel like: <https://www.youtube.com/watch?v=hK8OOFdbGe4>

The following are a couple snapshots taken from the video demo, including the main menu page and the setting of the game:



5. Prototype Testing

The following table remains unchanged from prototype 1 since only the story has been changed, not the gameplay; this is a result of our main client feedback being story based rather than technologically based. It tests the target specifications for our gameplay prototype and compares its tested values with our target values.

Target Specifications	Tested Value	Target Value
Development Cost	\$0	< \$50
Frame Rate	120 FPS	≥ 90 FPS
Loading Time	7s	≤ 5 s
VRAM Memory	660 MB	≤ 4 GB
RAM Memory	160 MB	≤ 4 GB
File Size	112 MB	≤ 3 GB
Duration	Unlimited	5 minutes

The discrepancies observed between our target and tested values did not differ from prototype 1 as our gameplay prototype did not change. This prototype only updated the story to better reflect the client's feedback. It is important to note that these tests were not done in VR as we did not have access to it yet.

The average frame rate of the game was 120 FPS, tested on several computers including a home desktop, Windows laptop, and a MacBook. However, the tests were not done in VR so an accurate depiction of a high average frame rate throughout various devices cannot be done, hence the overachievement of the target value by a large margin. A large discrepancy could also be seen between our tested and target values for VRAM memory and RAM memory as our gameplay prototype did not need to render or process as much graphics, since a minimal number of assets were being used. In addition, file size and loading time may slightly increase as more assets are added. For our final prototype, we plan on implementing our new story into our gameplay prototype.

The following table is a survey that includes the tested value for a measure of ratings out of 5 (1 being poor, 5 being excellent) from a survey conducted involving 20 students, with which they compared both our prototypes and rated our storytelling given our scenarios and the empathy they felt.

Full Name	Prototype I		Prototype II	
	Story Telling	Empathy	Story Telling	Empathy
Jonathan Colasante	3	3	3	5
Chloe Balesh	3	1	4	4
Kevin Young	2	2	3	3
Ernest Wang	4	3	4	5
<i>Anonymous</i>	3	3	3	3
Brant Dimitrievski	3	2	4	4
William Bilodeau	4	3	4	5
Vianca Romero	2	1	3	5
<i>Anonymous</i>	3	2	3	5
Hayden Benjamin	5	5	5	5
Jade Hall	2	2	4	4
Marwan Mashaly	2	1	3	4
<i>Mohammad Al-Hossari</i>	3	2	3	5
Zoe Houle	3	3	4	4
<i>Anonymous</i>	4	4	4	5
Connie Wang	4	3	4	3
<i>Anonymous</i>	2	3	4	5
Mikael Boulanger	5	4	5	4
Sabrina Tochkob	2	2	4	4
Adham Radwan	4	3	5	5
	3.15	2.6	3.8	4.35

From the survey, we've achieved our storyline target values. Our previous prototype scored 3.15 and 2.6 for storytelling and empathy respectively, whereas our current prototype scored 3.8 and 4.35. We aimed for at least 4/5 for both these criterias. Although we are slightly off for the storytelling criteria, we believe that a 0.02 margin is negligible as storytelling is very subjective and depends from user-to-user.

6. Conclusion

In conclusion, based on our client's feedback from our last meeting, we updated our product design and came up with a finalized storyline for our second prototype. Our team plans on using this second prototype as the finalized version of our product. We believe that this prototype is much better than our previous one as it aligns more with our client needs. Furthermore, based on our survey, we concluded that our improved storyline tells a better story and fosters more empathy. Now that we've polished our storyline, we're altering our project plan to begin the implementation of our storyline onto Unity.

7. Updated Project Plan Wrike

Added tasks for updating the story to create empathy rather than sympathy as this was one of the main points of feedback our client gave us. Added a milestone to have our story set in stone so we can fully focus on unity implementation without having to go back and make changes for story alteration (added as an FF dependency in wrike). Divided PD F into smaller subtasks and assigned each to a single group member; this allowed us to allot time based on task owners availability. Lastly, marked finished tasks as complete on such as allowing users to roam our game freely (which was completed earlier than expected).

<https://www.wrike.com/workspace.htm?acc=4975842&wr=20#folder/967004210/list?filters=&showInfo=0&sortOrder=11&spaceId=-1&viewId=-1>