User manual

Project Deliverable J
Presented by
Julien Chan (300117842)
Jai Chauhan (8885977)
Nicholas Galipeau (300053439)
Marissa Dillon (300017969)
Soha Issa (8702460)

As part of the course
GNG2101 - Z08
Introduction to product development and management
given by Emmanuel Boudendeu

University of Ottawa
Faculty of engineering
July 19th, 2020

Abstract

The purpose of our service was to solve distance learning caused by Covid 19. Our client CEED requested us to create a platform where students could learn the program Unity at home that would be as interactive as possible. Unity is a software used to create virtual reality games, videos and more. We decided the best way to meet CEEDS needs is to create a website in which students can interact with CEED instructors through live chats and zoom sessions. In addition, the students will go through a module each session with a ten minute video that will describe how to use a certain function in Unity. Once the student completes the video there will be a short quiz testing the students knowledge on the section. If the student passes the quiz they will be able to move onto the next section in the module. In this report we will discuss how the website came to be and how to operate it. We will also discuss functions and capabilities of the website as well as our future work.

Table of Contents

List of Figures

Introduction

The creation of Learn Unity was developed in order to solve distance learning during the covid-19 pandemic. The switch to online learning was a big adjustment for University faculty as well as students as the labs and workshops that were normally performed in class had to be converted to a digital form. CEED provides numerous workshops to students including Soldering, 3D printing, coding, VR and many more; our task was to create a platform where students could efficiently learn the basics of the VR software Unity at home.

Through the iterative design process, we were able to create a product that caters to all of the clients needs. The basic requirements for this platform were that it had to be accessible to all students, affordable and interactive. Our product has many advantages. To start, CEED can customize the content they would like to focus on during the course while controlling how the students work through the modules. Our website also minimizes social costs by increasing the interactions between student and teachers through live chats, a discussion forum and Zoom sessions. These options will ensure all of our client's needs are met.

The product

Our product Learn Unity is a website where the makerspace and CEED can offer their VR tutorials for the Unity software. The figure 1 below shows the main page of the website, accessible by the "Home" tab. On the main page, we have the goal of the website, our product pitch as well as a quick explanation of what the user will learn. Near the bottom of the main page, there are a few boxes with the information (date and time) of the next three live meetings with the TAs that will be taking place. The figure 2 shows the tutorials page that can be found under the "Tutorials" tab. There's also the discussion forum in figure 3 in which students can post their questions under the "Forum" tab.

Figure 1: Main page of the website
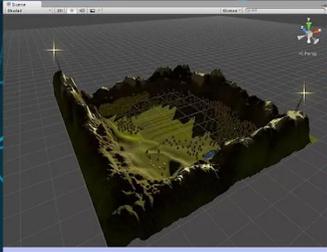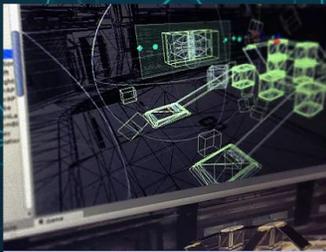
Figure 2: Tutorials tab
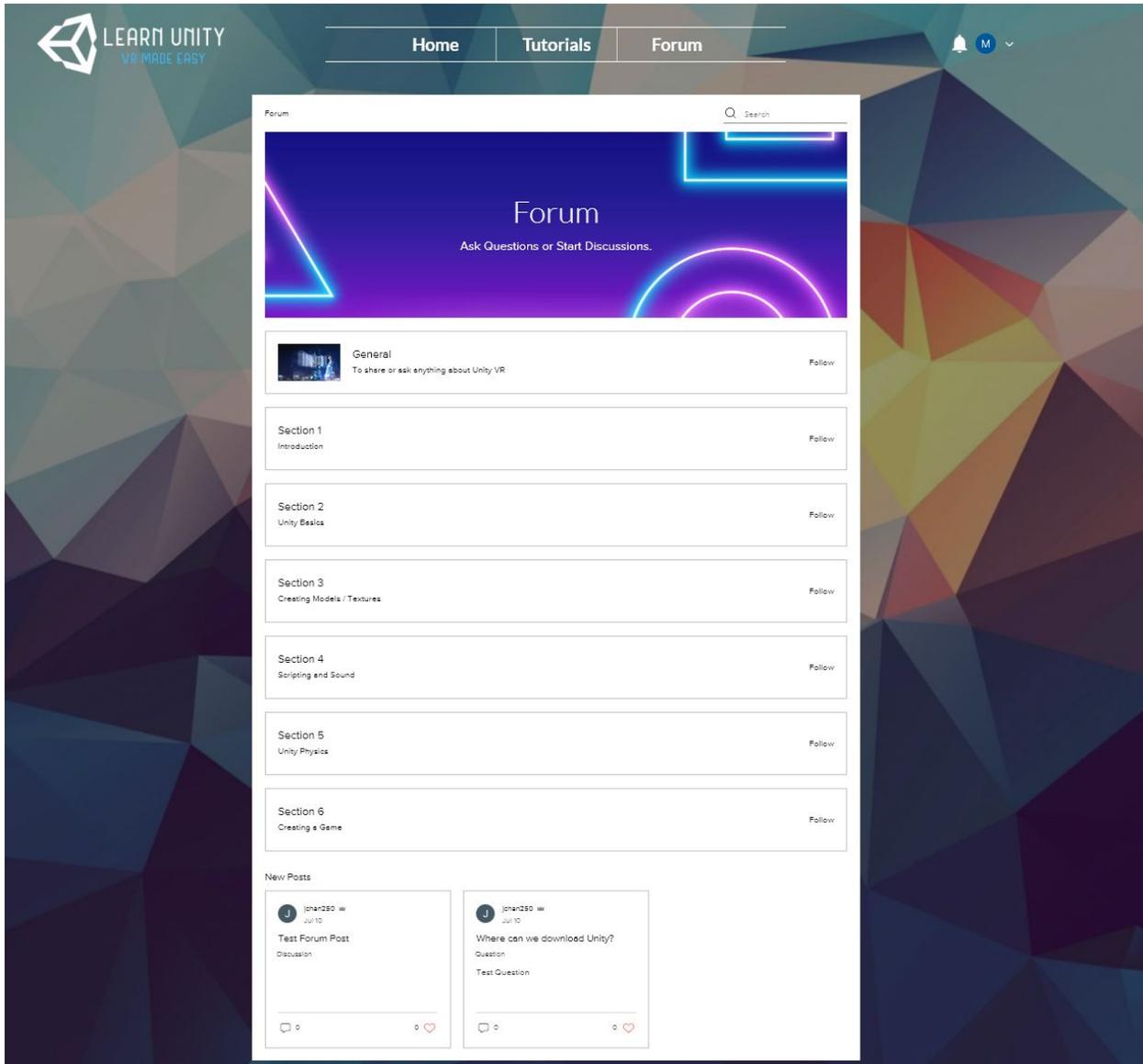
Figure 3: Discussion forum tab

Functions and capabilities

The LearnUnity website is simple yet can accomplish many things. The user can follow the video tutorials under the "Tutorials" tab at their own pace. When they're done, they must complete the quiz situated after the video. Once the user has completed and passed the quiz, they will receive a password. This password will be used to unlock the following section and continue their training in basic VR. Once they have completed all of the sections, they must click on the red "Certification test" button in the "Tutorials" tab to pass their final test to get their certification. The website also has the capability of allowing the users to initiate a live chat with the TAs during a specific time of day. If they have questions, the students can also post them in

the discussion forum and receive answers from other students as well as from the administrators. Also, the admins can schedule live zoom sessions in order to go through certain information about the tutorials. The website allows you to log in when you first enter the website to keep track of your progress. The log in also allows the TAs to know which student they are talking to in the live chat. The website has the capability of being accessed on any device with an internet connection, which means the students can access it wherever they are.

How it was made

No physical material is needed for the production of our product. Since it is a website, all work has been done online using a WIX. WIX (https://www.wix.com) is an online website maker that is focused on beginner development so the creation of the site was logical. Several tools have been used to develop this website and this section would go through how to use all of them.

The final website that was developed for this project is:
https://jchan250.wixsite.com/unity
All pictures/videos used in our final product can be found on our makerepo:
https://makerepo.com/JulienChan/learn-unity-introduction-to-vr-z8

Login: On the website, there is an option for users to login. This would make sure all students can properly use all the functions our website has such as the live events / forum. The login function is added to the website using the "Members signup" application provided by wix itself. This app adds a login option, a profile page, a wallet page, and a notification page; which would be useful for the interactive sections of the website.

Home: The home page is divided into 3 strips. The first strip (top) contains the website navigator containing Home, Tutorials, and Forum. It also has the Learn Unity logo and the website login. The first strip contains an enlarged image of a VR headset and the title of our website.. The second strip has a hover box (special box found in wix's box options) for our goal, a box for our pitch video (added using wix video), and a hover box of what you learn in our tutorial. The third and final strip contains the upcoming live events for students in need of help. This was also added using wix's free application of live events. In the bottom right corner, there is a live chat that is called Wix chat on the application page.

Tutorials: On the tutorials tab, there are 6 tutorial sections available for the students. This was done using the gallery application on wix which allows us to add images on the sections. Clicking on one the gallery images redirects the user to another page, where the tutorial content would be. Inside a tutorial section, there is the video content that would teach the user a specific

part of the lesson. After each tutorial, there is a quiz that was made using an application on wix called "Firebox Games and Quizzes", which would record quiz progress of students and make sure everyone understands the subject. Each section after the first one would be locked by going to site menu → tutorials → settings → permissions → password holders. The password would be located at the end of each quiz if the user passes.

Forum: The last tab is the forum, which was created using the "Forum" application on wix. Inside the forum, there are 7 sections: General and the 6 tutorial sections. This would make sure all discussion posts and questions are properly organized for the user.

Health and safety precautions

Our product to use as it is like any other typical website that one can access on their laptop. Therefore, there aren't any specific precautions to take. However, it's always a good practice to take a break from looking at your computer screen when you're using it for prolonged periods of time. Because of this, we encourage users to take a break every 20 minutes to look at an object further away than your screen to give your eyes a break[1].

Troubleshooting and maintenance

Our website is very easy and simple to maintain. If any problems arise for the client while they are uploading their videos or making any other changes, they can contact Wix, which is the website builder we used. There's no maintenance to do on the website as once everything is published on the website, it stays there until any further changes are made.

When the client wishes to make changes, all they must do is sign into their profile on the website. They will have special access as an administrator and this will allow them to make all the changes they wish to do, which can include uploading new videos, changing the questions in the quiz and adding a training module.

Conclusions and Recommendations for Future Work

This platform is easy to build, use, and maintain. This user manual leads any future students or clients through its construction and applications. This project helped refine our skills, determination and teamwork. The project plan was a great tool to keep this team concentrated and up to date with each task. Along the way, we noticed it was easier to complete each task when everybody knew exactly which part was theirs. Good communication was the building block for that. The more we communicated, we became on the same page and started being much more productive.

We hope to continue to enhance the quality of the product in the future. One of our plans for the future is to add a section/tab in the website that helps the TAs to track the progress of all

---

[1]*All about eyes* [website]. Consulted July 18th 2020. https://allabouteyes.com/work-computer-day-take-care-eyes/

students. We are also going to set up a customer service helpline dedicated to CEED for whenever they run into problems with the website.

Bibliography and Appendices

All about eyes (n.d.). Retrieved July 18, 2020, from https://allabouteyes.com/work-computer-day-take-care-eyes/.