**CAPSTONE PROJECT**

**DAGOHOY’S REVOLT: A 3D EDUCATIONAL GAME ABOUT DAGOHOY**

GROUP 2

SECRET CLASS

MEMBERS

PABRIGA, LORD SON

DAPITILLA, GLENN GERALD

CORAGE, R.A. PATRICIA

CRUEL, MELCHIZEDEK

OREVILLO, BRYLE ANTHONY

Mr. Benjie Lenteria

Capstone Project Instructor

M-F 10:30-12:00

**Chapter I**

**Introduction**

**Project Context**

This project aims to provide an entertaining way to impart knowledge to the children and youth about Francisco Dagohoy. It is also our way of expressing our appreciation and honor to the boholano hero, Francisco Dagohoy. As our nation moves further into the technological age, millennials do not recognize who Francisco Dagohoy is. This project will be helpful for them to get to know and enjoy the history of our Filipino hero. Moreover, how will we be able to deliver that to the children and youth today? Our mission is to create and develop a way to level up their way of learning about him, by creating an educational game.

Educational games are not new today. There are lot of educational games on the Play Store, some of these games are for kids like learning alphabet and simple computations. There is also something more advance like brain teasers and puzzles for adults. These games are fun and educational but we want our game to be something unique. We will make our game that has a perfect balance of entertainment and education.

**Statement of the Problem**

**Purpose**

The purpose of this project is to educate people about Bohol’s history. Specifically, one of Bohol’s mighty hero Francisco Dagohoy. The project will help enlighten the people about who Francisco Dagohoy is and the revolt he led in Bohol that last for 85 years.

**Objectives**

The main objective of this project is to create a game that is both educational and also entertaining.

* To create game that will have a campaign/story mode that tells the story of Francisco Dagohoy,s revolt.
* To create a game playable for PC and Mobile device and it can be played online and offline.
* To create a website which contains the download page and trailer of the game.

**Significance of the Study**

This project will benefit the following:

* **Children and Youth.** This project will enlighten them about one of major events of the history in Bohol. As of our generation today moves further into the technological age people, especially the millennials have forgotten those individuals that bravely fought for justice in our country. Making it a game will make it interesting and also while using it they will both learn and have fun.
* **Future Researchers.** This project will help the build their ground on how to start and develop an Educational game. This will serve as a reference on what things they might consider in their development. This will give them ideas on what concept and gameplay to apply on their own project.

**Scope and Limitations**

This game is a 3D Adventure RPG (Role Playing Game). The game has a Campaign/Story Mode that narrates the events on Francisco Dagohoy’s revolt. The game also has an extra quiz game about some of the important details of Francisco Dagohoy. The game can be downloaded and installed on Android and Windows PC; it is also playable on the computer’s browser.

The game only covers the events of revolt lead by Francisco Dagohoy. The story does not contain major personal information of Francisco Dagohoy like his childhood life. The game will not be available on Play Store or in Steam due to some financial requirements. This game is also not available for IOS device because Apple doesn't offer an official way to install software outside of the App Store. There are some ways to install application outside the App Store but the process might be complicated for the users.

**CHAPTER II**

**Review of Related Literature**

This part focuses on several aspects that will help and improve the development of the project. This project has a lot of angles that we need to look and give a proper attention. This has a lot to give, that is why we need to make it sure that this will turn into what we envision.

In today's situation, it is essential to stay at home and study at our own pace. We are being challenged on how we work things out during these days. According to Joe Todd (2020), “these games are meant as a supplement rather than a substitute to our existing school systems. Playing games can create a fun learning environment designed to keep our physically distanced selves at home while remaining social and continuing to learn because we cannot deny the fact that there are some applications that will help the children and youths to learn even by just playing using their mobile phones and computers.”

Although, children and youth find another reason except by just learning from their mobile phones and computer by also a quality of time. According to Aaron Langille et al. (2020), in their articles, stated that “people play video games for many reasons, including relaxation, escapism, and (of course) fun, but they also provide spaces for people to get together and stay connected.”

The advancement of today's games and applications brings the next level of entertainment and learning to people, especially children and youth. Children and the youth are still learning something, especially if it is related to history, even if they'll play an application. According to Joe Todd (2020), “History can be taught by video games because they allow us to experience events of the past. Games like the Assassin's Creed franchise (rated Teen or higher) allow players to experience historically accurate settings and interact with historical figures from the Crusades, Renaissance Italy, the French, and American Revolutions, as well as Ancient Greece and Egypt”.

**Historical Background**

Educational games are not today. Since the introduction of video games on 1970’s a lot of games are released that are considered as an educational game. The first educational game was *Logo Programming,* this game was released by Turtle Academy with the intent of teaching programming and mathematical concepts. Then there is *Lemonade Stand,* this is business simulation game that teaches basic economics by running a lemonade stand. *Lemonade Stand* is considered one of the oldest and most populareducational games of all time. There is also *Oregon Trail* which is originally developed for students in Minnesota, the gameplay is simply asking players to successfully lead a family of settlers along Oregon Trail. *Oregon Trail* had a great impact on educational games that causes an increase number of educational video games on the following year.

As of today, Minecraft is one of the most popular educational game. Minecraft is considered as an educational game because it enhances creativity, problem-solving, self-direction, collaboration and other skills. On November 1, 2016 Minecraft: Education Edition is released. This is a version of Minecraft that is specifically designed for classroom use.

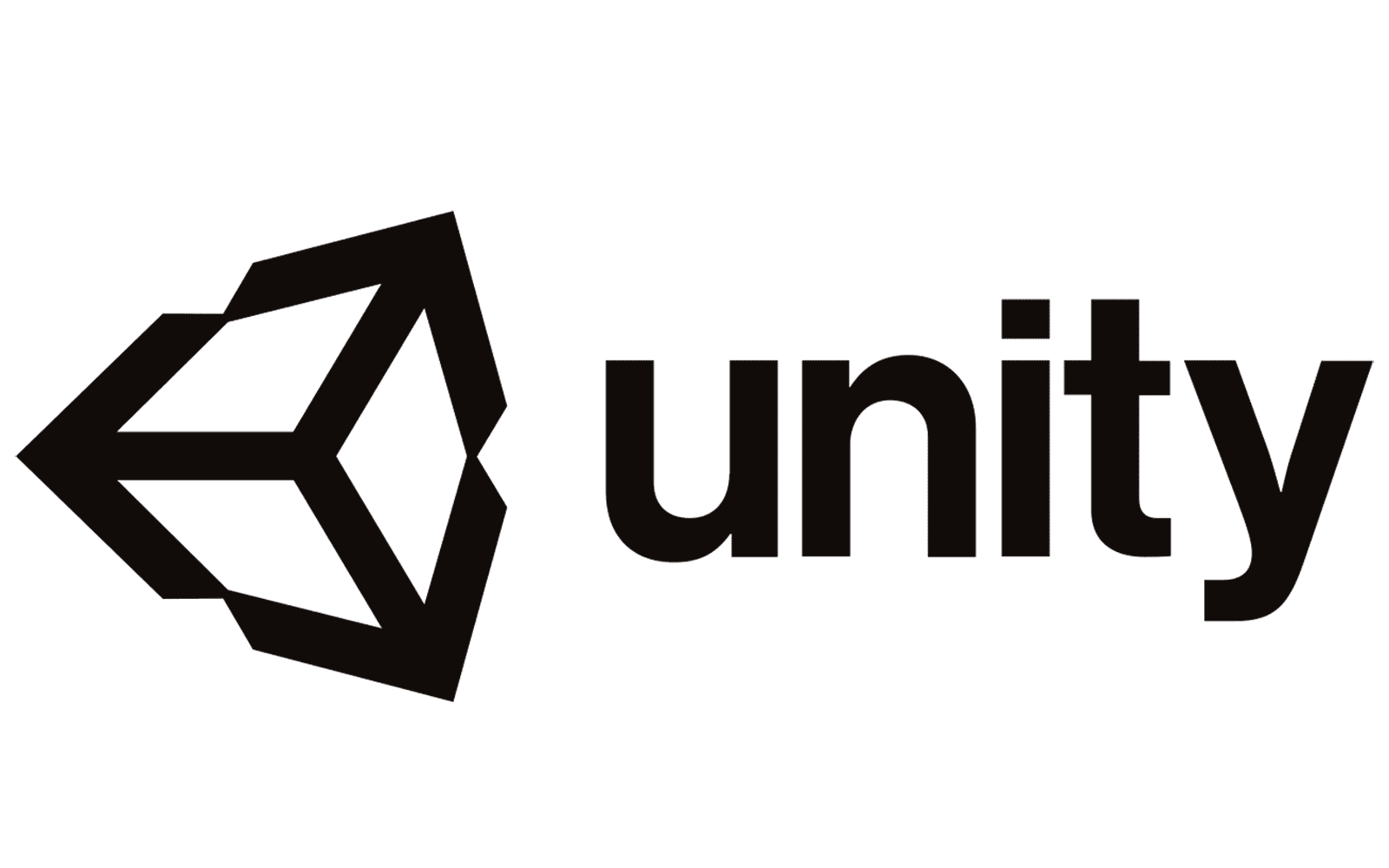
**CHAPTER III**

**Technical Background**

There are a lot of ways to develop a game. Especially today there are a lot of game engines that are free to use like Godot, Unreal, Unity and etc. We choose to use Unity because there are many tools and packages that can help us in our development.

Making a game is not all about programming. Especially on a 3D game there are lot of things you need to consider. Making a 3D game means making 3D models and also animating it. Thankfully today there are lot of 3D software like Cinema 4D, Autodesk Maya and Blender.

**Unity**

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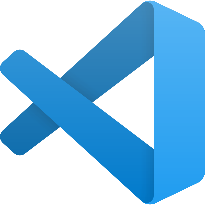
Unity is a cross-platform game engine that is developed by Unity Technologies. This is widely used by companies and indie game developers.

**C#**



The main programming language that will be used in this project is C# because this is the default language that unity supports.

**Visual Studio Code**



Visual Studio Code is a source-code editor made by Microsoft. This will be used as an external code editor for unity to make programming faster because the default code editor in unity is just a plain text editor and does not have intellisense.

**Blender**

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Blender is a free and open source 3D creation suite. It supports modeling, rigging and animation which is perfect for what 3D game needs.

**Adobe Photoshop**



Adobe Photoshop is raster graphics editor developed and published by Adobe Inc. This application will be used to create textures like normal map and height map for the materials in the game.

**Adobe Illustrator**

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Adobe Illustrator is a vector graphics editor developed and marketed by Adobe Inc. This application will be used to crate graphical assets for the game like buttons and other elements that will appear in the UI (User Interface) of the game.