BurgerVerse
Game Design and Development
ECE 651

Harneet Kaur, Muhammad Saad Khan, Akashdeep Singh Khehra,
Vishal Saini, Gurkirat Singh

Electrical and Computer Engineering, University of Waterloo, Ontario

---

There were 2.69 billion video game players worldwide in 2020. The figure will rise to 3.07 billion in 2023 based on a 5.6 percent year-on-year growth forecast. Many of these gamers are drawn to the games due to the hard work and dedication of game developers and the technology behind the games. Unity is a widely used game engine that is utilized to create popular games such as Bad Piggies, Cuphead, Cut the Rope, and Angry Birds. Our group wants to meet the challenge of becoming game fans by making our first game with a popular game engine like Unity and learning how games are made.

We plan to make a 2D computer game with multiple levels using software engineering principles like Agile methodologies, architectural patterns, and software testing. We hope to learn how game engines are used to make games for the public by learning how to use Unity. We will learn about and use different Unity frameworks, tools, and C# scripts to make games work. GitLab for Unity will be used to manage our version control, and we plan to meet the requirements for each version every two weeks. Unity Test Runner will be used for our testing approach.

The game's story centers around a burger that must search for condiments in a kitchen to fulfill a customer's order. The goal is to collect all the requested toppings. Each level will feature a topping that is blocked by a puzzle made up of opponents and obstacles. After completing this project, we anticipate gaining practical expertise in Unity and C#, and becoming familiar with agile game development workflows. We will continue to play-test the game, gathering feedback and making adjustments accordingly.

January 20, 2023