Development of Endless Rush Game Using Python

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Abstract: We use the pygame library to make games with attractive graphics, suitable animation sound and it provides a wide range of features, making it an ideal choice for beginners and professionals alike. Endless Rush is a simple game project created using python programming language and pygame library. Pygame is a set of python modules designed for writing video games. The code also uses various pygame modules, such as image module, which is used to load images of the players, enemy and score blocks. The players movement is controlled using the arrow keys and the camera follows the players movement to keep them in the center if the screen. The collision detection between the player and the enemy/score block is done using a distance formula. If the distance between the player and a block is less than 50 pixels, the collision is detected. The code demonstrates how to create a 2D game using pygame in python. The game loop is implemented using a while loop that runs until the game is over or the player wins. The pygame clock module is used to control the speed of the game loop and to update the game at a fixed time interval.

Keywords: Birds,Pipes,Cactus, Player.

I. INTRODUCTION

Pygame is a multimedia library for Python for making games and multimedia applications. It is a wrapper around the SDL (Simple Direct Media Layer) library. In this section we introduce the basics of pygame functions without defining classes and objects. Colors are defined as tuples of the base colors red, green and blue. This is called the RGB model. Each base color is represented as a number between 0 (minimum) and 255 (maximum) which occupies 1 byte in memory. An RGB color is thus represented as a 3-byte value. Mixing two or more colors results in new colors. A total of 16 million different colors can be represented this way. The easiest way to decode many keys, is to use a dictionary. Instead of defining many if-else cases, we just create a dictionary with the keyboard key entries. In this example we want to associate 8 different keys with 8 different background colors. pygame is a Python wrapper for the SDL library, which stands for Simple Direct Media Layer. SDL provides cross-platform access to your system's underlying multimedia hardware components, such as sound, video.

DOI: 10.55041/IJSREM22773 |

II.   LITERATURE REVIEW

Endless Rush game have long captivated the imaginations of gamers, offering thrilling experiences in prehistoric settings. This literature review explores the evolution and impact of Endless Rush games, examining their popularity, game play mechanics, education. Evolution of Games:Endless rush games have evolved significantly over the years, starting from early titles like Endless Hunter to more recent releases such as ARK: Survival Evolved. The genre has embraced diverse game genres, including action-adventure, survival, strategy, and simulation. Popularity and Player Appeal: Endless Rush games have consistently attracted a broad audience, appealing to both casual hardcore gamers. Their popularity stems from the timeless fascination with dinosaurs, offering players the chance to explore ancient worlds, encounter colossal creatures, and engage in thrilling game play experiences. These games often tap into nostalgia and provide a unique blend of entertainment and exploration. Game play Mechanics: Endless games incorporate various game play mechanics to enhance player immersion. These mechanics may include open-world exploration, survival element, resource management, crafting systems, and combat against Endless or other players. The successful integration of these mechanics creates engaging and challenging experiences for Educational Aspects: Endless Rush game have educational potential, serving as a platform to learn about paleontology, prehistoric eras, and the behaviors of dinosaurs. Some games strive for accuracy in their depictions of dinosaurs and their behaviors,environmental

simulations. Impact on Popular Culture: Dinosaur games have influenced popular culture, spawning a range of merchandise, spin-offs, and adaptations in other media.The success of franchises like "Jurassic Park" and "Jurassic World" demonstrates thewidespread appeal and enduring impact of dinosaur-themed games on popular culture.

III.   PROBLEM STATEMENT

Our goal is to develop an enhanced Endless game that provides an engaging and immersive experience for players of all ages. The current version of the game lacks depth, variety, and interactive elements, leading toa repetitive and monotonous game play experience. Therefore, we aim to address the following key issues: Limited Game play Variety: The current Endless game offers limited game play options, with the player controlling a player that can only jump to avoid obstacles. This lack of variety leads to repetitive game play experience, diminishing player engagement and interest over time. Absence of Interactive Elements the current game lacks interactive elements that would make the game play more engaging and immersive there are power-ups, collectibles, or special abilities that players can obtain, limiting overall excitement and motivation to continue playing. Inadequate Difficulty Progression the game currently lacks a well-designed difficulty progression system. As result, players find it challenging to gauge their progress and feel a sense of accomplishment. A lack of games escalating challenges and rewards may discourage players from continuing to play or returning to the game in the future.

IV.   METHODOLOGY

The player can only move vertically. Other than player block there will be two other blocks. One of them will be the enemy block and one of them will be score block. If the player collides with the enemy block then the game over screen, pops up. If the player collides with the score block the score is implemented. The player moves horizontally and the player jumps to escape from the enemies and the score will increase. To jump we use the space bar and we press down arrow key to make the player kneel down.

ER DIAGRAM OF GAME
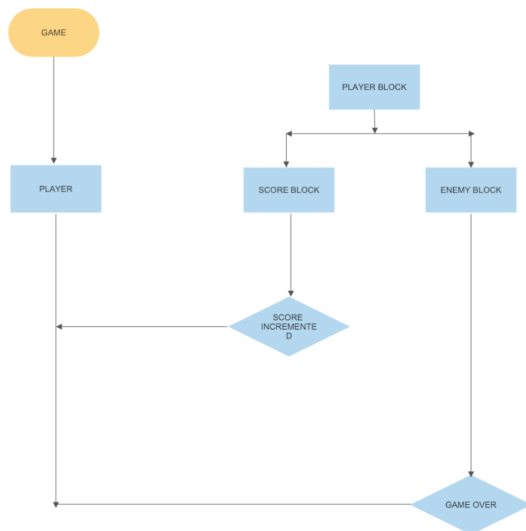
The game will have four different modules: The player block, The enemy block, The score block, The main block, We will create a separate python file for each module/component and the modules are divided among the team members so that each member can contribute in the coding part. Like one person will be given players module so he needs to code the entire players module like this the remaining modules remaining teammates. Then we will

be importing all individual modules together into the main module/component and then we will write the game core logic in the main.py file.
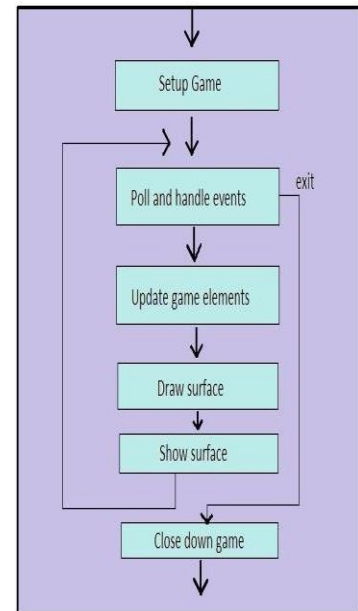
V.   EXPERIMENTAL RESULTS

The Endless Rush Game is primarily designed as a casual game to entertain users when they are experiencing connectivity issues. It doesn't typically involve extensive experimental analysis or research. I recommend checking academic databases, game development forums, or relevant research publications to find any studies or experiments conducted on this topic. Additionally, you can try playing the game yourself and keep track of your own results and progress. It can be a fun way to challenge yourself and improve your skills in the game. I recommend searching online gaming forums, websites, or communities where players discuss their experiences and

achievements in the game. You may find high scores, strategies, and other information shared by players who have played the game extensively.
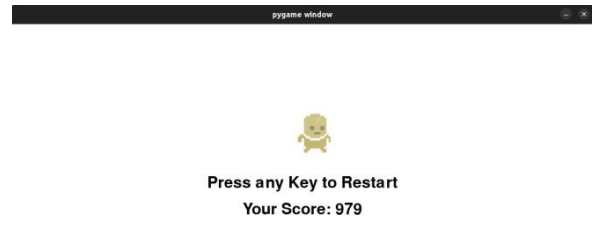
VI. CONCLUSION

In this project developed a Endless Rush game The player can only move vertically. Other than player block there will be two other blocks. One of them will be the enemy block and one of them will be score block. If the player collides with the enemy block then the game over screen pops up, if the player collides with the score block the score is incremented and it is compulsory to collect all score blocks. You can't change direction and you have no control over your speed. All you can do is jump and duck. It's a play on going back to the "prehistoric age" when you had no Wi-Fi.

VII. FUTURE WORK

When the internet service crashes most people immediately call up the internet provider to find out the cause and fix the issue. However if you were working on

Chrome it gives you the chance to play Google Chrome Endless Rush game and it is simply fascinating. In fact it keeps you hooked until our internet service gets restored and often you still keep on playing.

VIII.   REFERENCES

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