

Android App Unity 3-D Game

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ABSTRACT

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Background/Objectives: Nowadays, the usage of Android mobile is increasing day by day. In this paper, an application, 'Zombie Hunter' is proposed for gaming purposes. Zombie Hunter app is developed on Android platform. The usage of this App is that it helps in reducing stress, improve reflex actions and it simply acts as a distraction to calm the mind. Android has been recommended for the developers because of its simplicity in working. Our new App is a Gaming Application which serves the purpose of entertainment. Being an open-source free application, it is readily available on Google Play store. Compared to existing gaming application, it's a 3-D built application with high end display and also easy to play.

KEYWORDS: *Android, Google Playstore, Unity 3-D, Gaming Application*

I. INTRODUCTION

Android is an open source mobile operating system based on Linux kernel and currently developed by Google. The game "Zombie Hunter" is also an android application which serves as a gaming application. It's based on Unity 3-D and is implemented on Unity software [1]. Unity provides it with a basic framework, the environment and all other necessary requirements for the app to work as a whole. There is other mobile operating system like Windows, iOS and Mac OS. But android is in huge demand in the growing market. Android is a OS made for touch screen mobile devices such as smart phone, tablet computers, etc. for users. Android has numerous developers writing applications (apps) all over the world. The common goal is to distribute the advanced open products for mobile applications devices. The best thing about Android, it is based on Java libraries and it is easily understandable. A

survey conducted by a Tech magazine found that 71% of mobile developers develop for Android operating system.

Unity is a cross-platform development platform initially created for developing games but is now used for a wide range of things such as: architecture, art, children's apps, information management, education, entertainment, marketing, medical, military, physical installations, simulations, training, and many more^[2,3,4]. Unity takes a lot of the complexities of developing games and similar interactive experiences and looks after them behind the scenes so people can get on with designing and developing their games. These complexities include graphics rendering, world physics and compiling. More advanced users can interact and adapt them as needed but for beginners they need not worry about it. Games in Unity are developed in two halves; the first half

- within the Unity editor, and the second half - using code, specifically C#. Unity is bundled with Mono Develop or Visual Studio 2015 Community for writing C#.

Unity is equally suited to creating both 2D and 3D games. But what's the difference? When you create a new project in Unity, you have the choice to start in 2D or 3D mode. You may already know what you want to build, but there are a few subtle points that may affect which mode you choose. The choice between starting in 2D or 3D mode determines some settings for the Unity Editor - such as whether images are imported as textures or sprites. Don't worry about making the wrong choice though, you can swap between 2D or 3D mode at any time regardless of the mode you set when you created your project. Here are some guidelines which should help you choose.

3D games usually make use of three-dimensional geometry, with materials and textures rendered on the surface of these objects to make them appear as solid environments, characters and objects that make up your game world. The camera can move in and around the scene freely, with light and shadows cast around the world in a realistic way. 3D games usually render the scene using perspective, so objects appear larger on screen as they get closer to the camera. For all games that fit this description, start in 3D mode.

II. OVERVIEW

The game "Zombie Hunter" is developed on Unity 3-D which provides it with the virtual environment, 3-D graphics, high end display and various other rendering options such as player movements, enemy movements, firing options etc. upon which the game is based. The task at hand such as environment setup, camera positions, light effects and character display are defined by Unity itself. The user has to define each object in the scenario which is then fulfilled by Unity and is thus implemented in the environment. The user

has full access to the map, i.e. he/she can roam around the map and the obstacles.

The Features of the game are as follows:

- The Game consists of two on-screen toggle buttons for firing and movement.
- The Game is based on high end 3-D display.
- The Game consists of 3-D objects for obstacles.
- The camera follows the player throughout the map.
- The display consists of the health bar of the player as well as the scores.
- The path of the fired bullets is visible and thus can be traced.
- It consists of audios such as player's death, background music and firing.
- It is highly user friendly.

III. LITERATURE REVIEW

- **Introduction to UNITY, The University of Queensland^[5]**

This paper helps in understanding the working as well as the proper functioning of the UNITY cross platform game engine. It introduces us to the vast options and features available in the game engine and how can they be implemented in order to create a game in 2-D/3-D.

- **Future of Android in the growing market: A Literature Review Anand Sen, Dilsad Hussain & S. K. Gupta^[6]**

This paper reviews the future prediction of growing Android market and present condition of Android Operating System that have been suggested by various researchers. All the fame and excitement about the costlier iPhones and Blackberry are vanishing, after the arrival of the most expected, open source mobile operating system, the Google Android, which has turned the industry upside down. In this paper a challenge is made to the review on the predictions about the future of Android

software and in the view of present facts and reasons

- **Scope and Impact of Android application in Education Sector, Prof. Shaikh Mohammad Ali, Prof. Mohd Talha Ahmad^[7]**

In the present scenario, as the Technology in the Mobile application is getting wider and better and the outcome of the result is also having a great impact on the entire sector. The most common revolution with Mobile phone including smart Phones industry, and the growth of Mobile application is also utilized on the basis of applications like Chats, Whatsapp, Entertainment, Social media, Games and etc. Now as the trend of New Mobile Application is generally empowering in the market.

IV. SNAPSHOTS

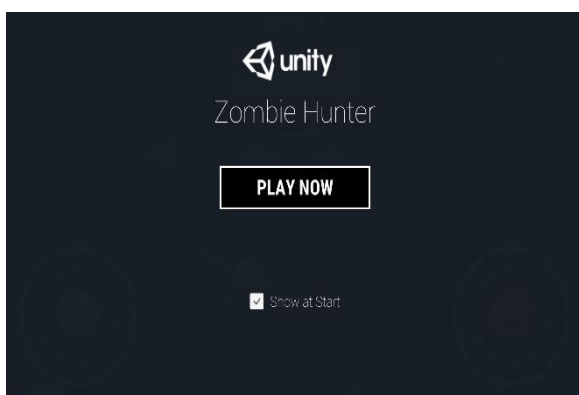


Fig 1. Game Start.

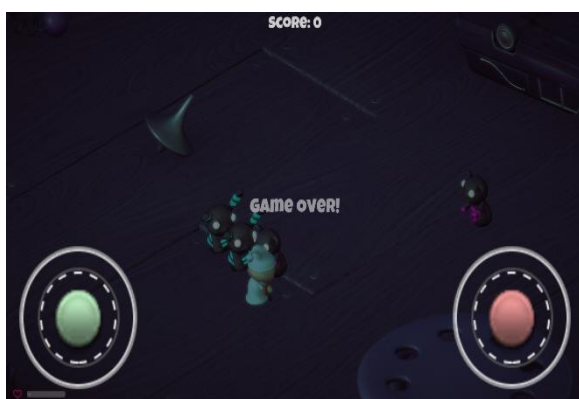


Fig 2. Game Over.

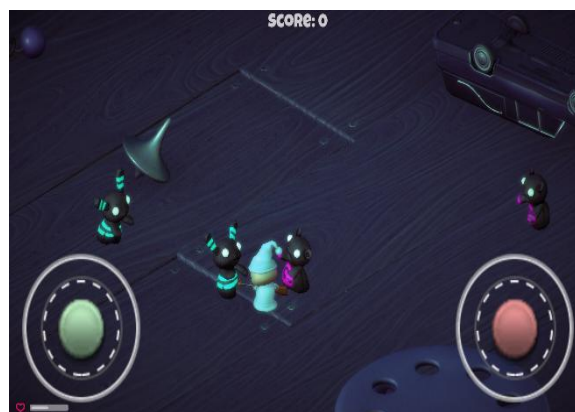


Fig 3. Game Play.

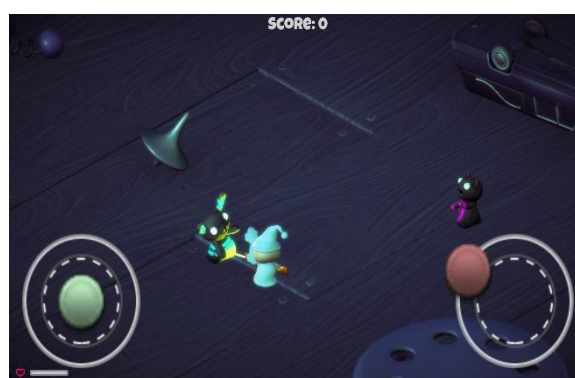


Fig 4. Shooting.

V. CONCLUSION

There are many game implemented on android operating system and Unity 3-D in today's growing market. Today we have lot of games and applications since 2008. Google launched its first Android-powered handset with T-Mobile G1. Google will keep innovating and improving its android OS in the future. Thus the game must be updated and issues must be resolved regularly for the game to survive in the present world. Present study is there for planned to collect relevant android operating system from the above literature review.

VI. SCOPE OF THE WORK

- The future scope of our project is as below:
- To work on different additional levels
- Adding customization options for the players.

- Include apparels customization and weapon options.
- Adding different genre games and merge it into one app(All-in-one).
- Adding database to store the high-scores of the players.
- To make it multiplayer.
- Make it a cloud based online game.
- To work on different platforms such as iOS, Blackberry OS, Windows etc.
- Include games based on similar or different genres.

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