3D Tic-Tac-Toe Project Description Report Summary

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Tic-Tac-Toe is a classic game that can be traced back to ancient Egypt. This simple yet timeless game has managed to survive the test of time thanks to it is easy to setup and play nature. What has made Tic-Tac-Toe so popular is how easy it is to start playing, all somebody needs to play the original game is pen, paper, and a friend. However, now that we are entering a more advanced age many people have moved away from traditional forms of entertainment in favor digital entertainment. One of which is mobile games. According to an article by Medium, almost a third of the world's population will play a mobile game by the end of 2019.

As our entertainment interests grow more advanced, so should our entertainment. For this reason, we want to take advantage of the growing mobile game industry and bring back the classic game Tic-Tac-Toe as a more modern update, 3D Tic-Tac-Toe. Although the original required only pen, paper, and a friend to play, 3D Tic-Tac-Toe will only require a mobile phone or pc running our product which will find other players to play with. In today's current age, most of the population has a smart phone, so we will be hitting a very large demographic. No longer will people need to scrounge for pen and paper to play Tic-Tac-Toe with their friends.

What makes 3D Tic-Tac-Toe different than the traditional Tic-Tac-Toe is much more than just translating a pen and paper game to an app. Instead of just playing on a traditional 3x3 game board. User's will be able to play on 3D shaped boards, the main 3D shape being a cube which consists of 6 3x3 grids. With a bigger game board also comes the addition of more players in a game, as opposed to the traditional 2 player Tic-Tac-Toe game. Our game will support up to 4 players in a single game. Players will be able to choose a custom icon to represent their spaces on the board. To place their icons on the board players will rotate the cube to their desired face and pick a space to place their icon. As players continue playing their will be a live score update showing the top 3 players in the game. More game modes and game board shapes (such as sphere) will be added to the game as digital purchases.

The purpose of our project is to extend an already well recognized classic game to multiple dimensions allowing for even more players and fun. This level of extension ads enough complexity allowing for a more strategic aspect of the game while keeping the game easy to learn and play like the original. Measurements of success we will be using for our game will include different methods such as customer reviews on platforms distributing our products such as Steam, App Store, and the Play Store. Customer reviews are especially useful because they can also give us insight into potential bugs as well as future improvements or features we can add to our product. The number of downloads as well as the user activity for our product are also crucial measurements for the success of our product. The number of downloads will give us a better understanding of how big our client base is.

There are currently no products on the market which extend Tic-Tac-Toe to a 3D board. However, we still consider other mobile games on the market to be our competition. Although other mobile games are not direct competitors, we still need to create a game that clients will want to play over others already on the market. What will make our product different than our competition will be the familiarity of playing a classic game most people have played, but with additional features that add a new level of complexity without compromising the easy to learn and play fundamentals of the original game.

Although development is a big part of the project, our developers are only a portion of the overall project team. Our team consists of developers, server administrators, game testers, marketing experts, and business analysts. Server administrators are an especially important part of our team, since our game is heavily multiplayer based we need to ensure that our servers are working properly to ensure that players are able to connect with opponents and play together with no issues or complications. Testers are another major part of our team that can easily be overlooked. With the help of testers, we can get valuable information such as the presences of bugs as well as feedback about the overall feel of the product. Testers are especially important because without them we could be releasing a buggy and unpolished product to the market which could leave a bad impression of our product and company on our customer base. Marketing experts play a huge role in the success of our company by getting our product enough exposure to gain a large enough fan base that will continue to grow. Business analysts the unsung hero of our team assessing and determining requirements as well as reporting to our stakeholders.

Our key target audience for our product are mobile gamers, both younger and older audiences. We especially want to target older audiences. According to a study done by mmaglobal, people over the age 45 made up almost a third of all mobile gamers. This was surprising to know because you would typically associate games with a younger audience. However, we believe what makes mobile games attractive to older audiences is the casual aspect of playing a game on a mobile phone that they can just pick and play at any time of the day. To add on, the study done also mentioned a correlation between age and spending money on virtual goods. 50% of the players within the ages of 35-45 bought virtual goods, 75% of players over 45 also bought virtual goods. Whereas only 10% of players age 18-25 made digital goods purchases. This is most likely due to older audiences having more disposable money than younger players. We believe that by keeping our game easy to learn and play we can target younger audiences as well as the older audience. We believe that older audiences may be deterred by confusing game mechanics, so by keeping the core mechanics of an already familiar game we make it easier for them learn and play 3D Tic-Tac-Toe.

Some constraints associated with our product include keeping the amount of required resources low as well as getting the product out on all the popular platforms. To elaborate on resources, although we know that most people own a smartphone, we do not expect everyone to have the latest flagship phone or pc with the best specs. For this reason, we want our game to be able to run on average mobile phone specs, allowing us to hit as many mobile phones and pcs as possible. To hit as many mobile devices and pcs as possible we also want to release our product on the most popular operating systems such as Android, IOS, and Windows. Without one or the other we lose a large demographic of possible users.

Our product will be developed using Unity as the game engine, with C# as the scripting language. Unity's cross-platform engine allows us to reduce the costs of development by avoiding having to develop natively for Android, IOS, and PC. We expect our product to stay within our budget constraint of $400,00 which will go towards development, testing, marketing, as well as product support post-release. Since our game will be targeting all game audiences, we expect it to be rater E for everyone, however we do not expect infants to use our product.