

## ABSTRACT

### Creating A Dota 2 Custom Game Modifier Template Using Dota LUA API

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Video games and Esports have become a massive market for entertainment with numerous and a wide range of genres and variety of selections of video games, the selection of entertainment is quite vast. Despite its growth and broad reach, understanding on this market are often limited to bias and speculation, the reason is that previously, there was a lack of understanding of game development process and the general people's intimidation of programming languages. In recent years, game development companies made some of their games open source and they release developer's log to the public on their website and social media platforms for the public to read and study from. Moreover, there are game engines that are available to the public for them to try their hands on game development and programming such as Unity and Unreal Engine that are free to download and publish their games on, with conditions attach to them of course depending on which game engine they use. This helps both the gaming industry and the consumers to start creating their own games and attracting newcomers into the game development industry by providing them with easy to access tools.

In this research, we offer an entry way for the public to get into game development, specifically the Dota 2 player base, by creating a template for them to create their own custom games in the Dota 2 game. Our template is a modifiable pre-made code that you can overlay in your custom game directory to ease your custom game creation process. Our template will have separate codes for different aspects of the template and also simplified explanation on the function of the code in them, to make it easier to find and modify the specific code or value that you want to modify. In this research and creation of our template, we hope that more people get into game development and make it less daunting to get into programming as a whole.

The result of this research shows that our template functions as we hoped it will albeit encountering a few obstacles along the research process. The feedback from the users is well received and will be used as future improvements to our template.

**Keywords:** Game, Custom, User Tools.