ABSTRAK

RANCANG BANGUN *GAME* 2D HELL ESCAPE BERBASIS *ANDROID* DENGAN MENERAPKAN METODE *GAME DEVELOPMENT LIFE CYCLE (GDLC)*

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Indonesia memiliki minat tinggi pada pemakaian *game*, hanya saja mayoritas *game* yang diminati adalah hasil produksi pengembang *game* asing. Pada tahun 2016, Indonesia memiliki pangsa pasar *game* lokal sebesar 9,5% dibandingkan Vietnam sebesar 42%. Oleh karena itu, peluang pengembang *game* lokal dengan tim kecil menjadi sangat tinggi sehingga dapat memenuhi kebutuhan konsumen sebagai bentuk kompetensi pengembang game di Indonesia. Tujuan penelitian ini adalah merancang dan membangun *game platformer* berbasis *Android* menggunakan metode *Game Development Life Cycle (GDLC)* pada teknologi *Unity Engine*. Metode *Game Development Life Cycle (GDLC)* memiliki pendekatan berulang untuk memungkinkan fleksibilitas yang tinggi terhadap perubahan selama proses pengembangan dimana terdiri dari 6 fase, yaitu *initiation, pre-production*, *production, alpha testing, beta testing,* dan *release. Game Hell Escape* merupakan *video game* yang mengambil *genre side-scrolling, platformer, roguelike* yang menceritakan kisah seorang dewa yang berusaha keluar dari neraka untuk membebaskan diri. Dalam *Hell Escape* memiliki 5 macam *enemy* dengan 2 desain level yaitu level *volcano* dan level *cave*, serta pada avatar terdapat variabel *health, curse* dan *skill* untuk memberikan variasi permainan. Berdasarkan hasil pengujian, *Hell Escape* berhasil dibangun sesuai *use case scenario* dimana pada pengujian *black box, gameplay* dapat berfungsi dengan baik sesuai dengan kebutuhan serta pada pengujian *platform/OS,* berhasil dijalankan menggunakan *platform Android*.

Kata Kunci: *Game 2D, side-scrolling, platformer, roguelike Game Development Life Cycle*

ABSTRACT

DESIGN AND BUILD A 2D GAME HELL ESCAPE BASED ON ANDROID BY APPLYING THE GAME DEVELOPMENT LIFE CYCLE (GDLC) METHOD

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Indonesia has a high interest in the use of games. It's just that the majority of games that are in demand are produced by foreign game developers. In 2016, Indonesia had a local game market share of 9.5% compared to Vietnam at 42%. Therefore, the opportunity for local game developers with small teams is very high so that they can meet consumer needs as a form of competence for game developers in Indonesia. The purpose of this research is to design and build a platformer game based on Android using the Game Development Life Cycle (GDLC) method on Unity Engine technology. The Game Development Life Cycle (GDLC) method has an iterative approach to allow high flexibility for changes during the development process, which consists of 6 phases, namely initiation, pre-production, production, alpha testing, beta testing, and release. Game Hell Escape is a video game that takes the side-scrolling, platformer, and roguelike genres and tells the story of a god who is trying to get out of hell to free himself. Hell Escape has 5 types of enemies with 2 level designs, namely volcano level and cave level, and on the avatar there are health, curse, and skill variables to provide game variations. Based on the test results, Hell Escape was successfully built according to the use case scenario where in black box testing, the gameplay could function properly according to needs and in platform/OS testing, it was successfully run using the Android platform.

Keywords: *2D game, side-scrolling, platformer, roguelike Game Development Life Cycle*