



DUNGEON DOWNFALL GAME DESIGN



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1. Introduction

This document specifies a design for the gameplay of a game with the title "Dungeon Downfall" created by the following students - Richard Alexander, Patrick Barsoum, Micheal Hogan, Fiston Kulimushi, Mohammed Al Bulushi and Elton Babela. It is based on various group discussions held throughout the year and contains many of the original elements presented in.

2. Specification

2.1 Concept

The aim of Dungeon Downfall is to produce a fun, addictive and fast paced endless game where the objective is to attempt to survive for longer period of time increasing your score.

2.3 Game Structure

2.3.1 Objectives

The game is a 2D platformer in which the player plays as a simple 2D sprite which must constantly keep moving downward against rising platforms, which threaten to push him into deadly spikes at the top of the screen. Along the way our protagonist "Gold digger" will have to avoid hazards and collect power ups to continue his journey down for as long as possible trying to obtain the high score. There will also be a shop system which the player can spend 'gold' which they will have collected from playing, this gold can then be spent on cosmetics and increasing the likelihood of a powerup occurring or increasing their strength/duration.

2.3.2 Action

Players will be able to collect randomly spawning powerups which will take the form of gems, such as emeralds - make you invincible, diamonds - makes the platforms slow down, etc . The player must keep jumping from platform to platform downward so that they may avoid spikes at the top of the screen which on touch, results in instant death. The player also has to worry about spikes which can shoot upwards. However, if the player comes in contact with one of these, they lose a percentage of their overall health, which can be recovered through rubies which heal.

2.3.2.1 Power Ups

HERE I WILL LIST EXACT SPECIFICATIONS OF THE POWERUPS- TO BE DECIDED. ALSO THE SYSTEM OF GOLD AND EARNING IT.

2.3.2.2 Health System

You begin the game with one heart. The spikes at the top of the screen result in instant death on touch and the spikes flying upwards take away one heart. Hearts purchased in the shop gives the more chances for when they make mistakes as a reward of playing. This helps the player break their high score and gives them a sense of game progression.

2.4 Display

2.4.1 Graphics

2.4.1.1 Art style

We have decided to go for a classical simple look with a cartoony style, to make our game appealing and suitable for all audiences.

2.4.1.2 Optimisation

Since the game will only have one type of graphics setting it cannot be GPU intensive so our graphics will have minimal detail and will be focused around gameplay readability.

2.4.1.3 Objects

2.4.1.3.1 Backdrop

We have decided to make the backdrop which will be some sort of a mine shaft to be programmed to be moving up the screen at the same speed as the moving platforms, creating the illusion of a rapidly moving game.

2.4.1.3.2 Character Sprite

The playable character will be an animated character sprite which will change depending on the input of the user, such as jump or dig. This will be outlined in further detail in game mechanics

2.4.1.3.3 Platforms

The platforms will be moving upwards at a fast pace, so we have to make the design easy enough for the player to recognise the platform and execute the jump. However, we still want to keep the aesthetic of the mine shaft we have settled on a simple looking dirt/rock platform while still being distinct enough to separate the foreground from the background.

2.4.1.3.4 Hazards

There will be several hazards in the game, so readability is very important. The spikes at the top of the screen will be stationary and the

player will be used to knowing not to touch the top of the screen, so, we can add a bit more detail to these spikes while being careful to display the hit box correctly. There are also the spikes which will be flying upwards. Readability is very important here so we will go with a simple triangular shape and a solid colour to stand out from the background.

2.4.1.3.5 Powerups

The powerups are an essential part of the fun and we have settled on the design of them being precious rocks. As so the rocks will be brightly coloured and all individual and unique so the player can make quick decisions on what powerups they want to risk going for.

2.4.1.3.6 Health

The health bar will be displayed in the HUD along with the score, we chose a simple design of hearts which will give the player easy readability to their current state.

2.4.2 Menu

We will have a main menu where all other menus will be accessed from. The following menus/buttons discussed will be displayed within the main menu.

2.4.2.1 Resume

When Esc is pressed it will pause the game and bring the player to the main menu, this button will resume the game.

2.4.2.2 Shop

The shop will contain various things for the player to browse and buy from. There will be a cosmetics section which will contain different looks for the character as well as different settings, that will change the look of the platforms and backdrop. The shop also as a section for the power ups in which gold can be spent to increase the likelihood of a powerup occurring or increasing their strength/duration.

2.4.2.3 Scoreboard

The scoreboard will display the last few recent high scores you achieved in order of highest to lowest.

2.4.2.4 HUD

The HUD will be an on screen overlay and will display important information for the player. Health in the form of hearts will be displayed here as well as the players current score and any powerups still active.

3. Target System and Audience (Players)

The game will be a single player game but there will be high score system which the player will be trying to beat on each go. The PC game will be playable by downloading it online and will be playable without an internet connection. The game can easily be ported to the mobile device, however we have decided to go with PC as our primary platform as we can utilise the full real estate of the big screen and incorporate extra controls since we are using keyboard and not have to worry about on screen mappings.

4. Story

2.2.1 Character motive

Our protagonists (playable character) motivation for

2.2.2 Setting

The game will be set in a vertical mineshaft.

5. Game Play

5.1 Game Mechanics

5.2 Game Progression