Pangasinan State University
Urdaneta City Campus

College of Computing
INFORMATION TECHNOLOGY DEPARTMENT

Midterm Project
Mobile Application Development 2

Barilan.com: A 2D side – Sliding Mobile Shooter Game

JAVIER, Godfrey
QUIBOL, Marcus Deither
ENGSON, Justin

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Project Overview

Barilan.com is a 2-D side scrolling shooter game made for the Android OS. This game provides simple pixel graphics, and basic player controls for a fluid experience. The player takes control of the game's protagonist, Juan Kardio. While playing Barilan.com, enemies will spawn randomly inside the world. The player's goal is to survive and eliminate as much enemies as possible until their health runs out. Barilan.com is targeted to casual players and competitive players alike.

Barilan.com takes inspiration from the many 2-D side scrolling shooters, with a Filipino twist. Barilan.com introduces Juan Kardio, a man fighting against the horde of zombies and bruha, with his trusty pistol at hand, Kardio seeks to eliminate the threat for good.

Design

- **Aesthetics**

  o Barilan.com's sprites and backgrounds are made from 2-D pixel art, taking inspiration from 2-D games from the 80s.

- **Sound**

  o Barilan.com's audio design comprises of a simple looping background music, player actions (shooting, healing) and enemy death. It also plays its own respective audio cue. This aids to add to a more enjoyable and dynamic player experience.

Developmental Process and Technological Decisions

- **Tools and Technologies**

  o Barilan.com utilizes Flame, from Google's Flutter framework as the game engine, and Dart as the programming language. The game's sprites were made in Piskel's web-based pixel-art interface and some were downloaded from the Craftpix.net. The sprites were animated using Flame's built in sprite animation component.

- **Physics and Collision Handling**

  o Player's bullet physics are linear, traveling only in a straight line upon firing. Sprite collisions are handled by collision callbacks built into the flame engine.

- **Enemy Behavior**

  o Enemy behavior is spawned randomly within the game world and assigned with a movement direction

- **User Input and Controls**

  o Barilan.com's input system consists of a series of on-screen buttons, these buttons trigger left and right movements, jumping and shooting respectively. On the top right, there are also buttons that sends the player back to the home screen, restarts the stage, or mutes the in-game background music.

Keeping the game arcade-like, without progressive stages or an extensive storyline, simplifies both development and deployment. Using a single weapon type instead of multiple options also streamlines the design process. We chose this theme because *Ang Probinsyano* is a widely recognized and popular TV series in the Philippines. Its strong cultural influence ensures that many people will immediately recognize and connect with the game's theme.