

Aesthetic goals:

1. Challenge: Our primary goal for our game is to challenge the player. By doing this, the player feels a real sense of accomplishment when they actually succeed.
 - a. Indications of success
 - i. Players feel a sense of accomplishment
 - ii. The game is not easily cleared in one playthrough
 - iii. The game works and can actually be beaten
 - iv. No playability issues
 - b. Indications of failure
 - i. Game is buggy, puts the player in positions where they cannot win
 - ii. Player dies from unfair circumstances
 - iii. Game is too easy, players don't fail
2. Submission: Tied into the game's challenge, we would like the game also to be heavily replayable. While you can beat the game, we want to draw players back by pushing them to beat their top score. Along that journey, we hope that players improve their skills and slowly build mastery over the game.
 - a. Indications of success
 - i. Players are drawn to continue playing
 - ii. The game has easy ways to restart so players quickly get back into the challenge
 - iii. Players can actively see their score and actively attempt to beat it
 - b. Indications of failure
 - i. Players are not unincentivized to keep playing

- ii. Gameplay is frustrating enough where players decide not to play anymore
- iii. Game is too easy, which would lose the player's engagement
- iv. Game is uninteresting visually, causing players to check out and lose interest

Core Loop:

The game we are attempting to recreate is frogger, a classic arcade game from the 1990's. In the game you have 3 lives and your attempt is to get the frogs home across a dangerous road and river. Players will score by moving forward and reaching home. When you lose your 3 lives, you lose the game and must restart. When you get all frogs home, you win the game! Also, attempt to beat your score as you play consecutive rounds.

Instructions for Game:

Welcome to Froggerio! Use the Arrow keys or WASD to move around the map. Avoid obstacles and cross the river in an attempt to get your frogs home(the empty pockets at the end of the map) before the 30 second timer runs out! The timer resets when one of your frogs makes it home. Fill up the frog homes to receive a bonus life(maximum of 3). Score points by moving forward and the game continues indefinitely until you lose all 3 lives.

Devlog

11/27/22

- Gathered relevant sprites for games
 - We initially had trouble using sprite sheets so we instead decided to use singular sprites
- Implemented the background and landscape for the game

11/28/22

- Started work on adding scripts to car sprites to allow them to move
 - Having a bit of trouble with auto generation if cars and other platforms
 - Will work on this more later
- Added sprites to screen and began implementing sprite hitboxes
- Found sounds on the internet that could be useful to help us hit point margins
 - Have not decided which sounds will be for which events, we will implement this later

11/29/22

- Added sounds for vehicles hitting the frog, game over, and the score incrementing
- Attempted to implement the scoring feature
 - Score is still a bit finicky, player can still score if moving backwards.

11/30/22

- Instead of doing auto-generation, we made the obstacles and river platforms move across the screen in a loop
 - Auto-generation proved too difficult
- Added frog movement to the game
 - Had trouble with boundaries for the frog
 - Addendum: Ended up fixing the boundary issues, used OnBecomeInvisible function

12/1/22

- Fixed scoring issue, you now only score when moving forward
- Implemented the frogs home feature
 - If you fill all of the frogs homes, you get a life back, allowing you to keep playing potentially indefinitely
- Began attempting to implement menu screens for pause and game over features
 - Game over and pause screens work, but the background game still does not stop when paused or game over

12/2/22

- Implemented the death animation
- Implemented frog jump animation

12/3/22

- Fixed game over and pause screens
 - Screens now appear appropriately and pause the game

- Fixed frog boundary issue, you now die when you go offscreen

Postmortem:

Looking back on the assignment, while there were some bugs we had to come back to on later days, everything ended up working out pretty well for us. The main bugs were logistical, such as switching screens to display game over information or adding animation to the frog sprite. The main bug we faced with the auto generation of obstacles and platforms we ended up circumventing by having the platforms loop. While this takes some of the challenge away from the game, it makes sure that the player is always able to win the game as long as they are skilled enough to do so. By fixing the issue this way, the player is no longer faced with impossible stuck states in the game.

With our game functional and with minimal bugs, we believe that we were able to achieve our aesthetic goals. The game is both challenging and engaging, and it keeps the player coming back for more. That drive to come back accomplishes our goal of player sensation, in which we wanted the player to keep coming back to the game and eventually mastering it.

What we really learned was just how versatile unity. Creating sprite animations took some time to learn but was really rewarding and simple once we got the hang of it. Also the ease of dragging and dropping sprites into the editor is unparalleled. What we wish we knew before we started was how to better use auto-generation in our game. Making levels and platforms randomly that still allow the player to succeed in the game ended up being too difficult, but with more time we believe we could have ironed out this issue as well.

Credits:

- Sound Effects
 - <https://opengameart.org/content/buzz-grid-sounds>
- Sprites
 - <https://opengameart.org/content/cute-green-pixel-frog-1616>
 - <https://opengameart.org/content/green-car-dacia>
 - <https://opengameart.org/content/red-car>
 - <https://opengameart.org/content/car-porsche-911-carrera-1998>
 - <https://opengameart.org/content/car-pixelart>
 - <https://opengameart.org/content/green-car-dacia>
 - <https://opengameart.org/content/red-car>
 - <https://opengameart.org/content/car-porsche-911-carrera-1998>
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