Marble Mayhem Design Document

Mantra/Tagline
A single sentence description of the game that you will use to guide design decisions. *Example: an educational infinite running game that tests your mental reflexes.*

Guide a marble and roll through levels before the timer reaches zero!

Design Pillars
List up to 3 words/phrases that convey the feeling or emotion you want the player to experience. *Example: Fast. Cerebral. Smart.*
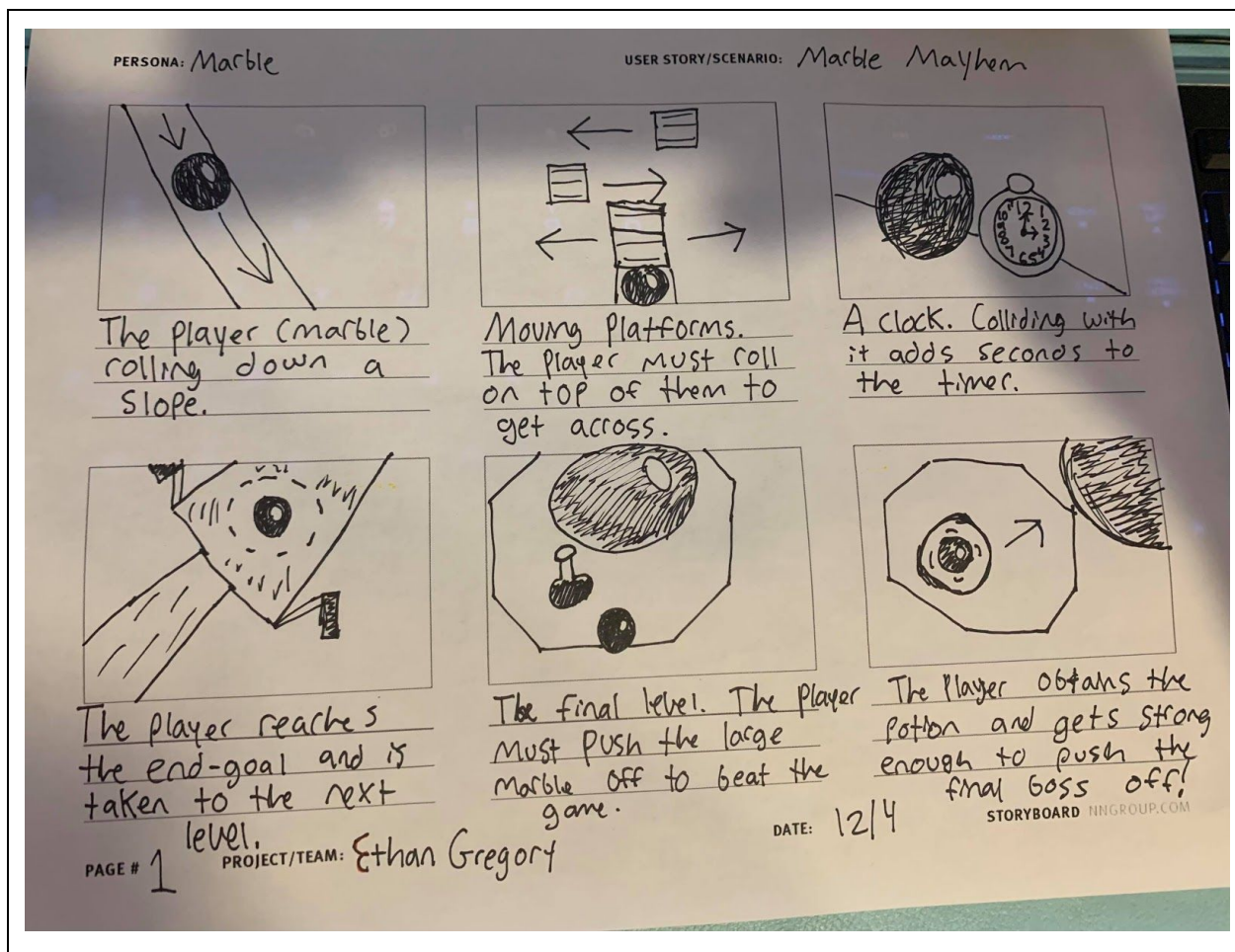
Nervous	Precise	Quick

Story/Gameplay Summary
List what the game is from a gameplay and/or story perspective. *Example: This game places the player into an infinite runner where they have to answer progressively harder trivia questions about geography in order to get power ups and stay alive.*

The player controls a marble from a third-person perspective. The player can only roll and cannot jump. The goal is to finish the courses with precision, avoiding obstacles and being quick enough before the timer runs out. The player can obtain clocks to increase the seconds on the timer. Once the player finishes the regular courses, they must battle a boss fight against a large marble to beat the game.

Storyboard
What's the arc of the gameplay? See this introduction to storyboards for user experience design. Use their template, or something like it with frames that have captions. See some game storyboard examples: VR game, robo game, platforming game. Your storyboard should have at least six frames that explain the key features of your game. Think about the progression all the way from title screen to the win/end screen.

PERSONA: Marble   **USER STORY/SCENARIO:** Marble Mayhem

The player (marble) rolling down a slope.

Moving platforms. The player must roll on top of them to get across.

A clock. Colliding with it adds seconds to the timer.

The player reaches the end-goal and is taken to the next level.

The final level. The player must push the large marble off to beat the game.

The player obtains the potion and gets strong enough to push the final boss off!

DATE: 12/4   **STORYBOARD** NNGROUP.COM

PAGE # 1   **PROJECT/TEAM:** Ethan Gregory

Feature List

List all the features that you want to include in your game. Don't worry about implementation - it's okay to list a feature you don't know how to make. Everything is a feature - from collectables, to player controls to showing visual feedback when a character is hit, to story voice-overs triggered when you enter a room, to a HUD, to the player's footstep sounds, etc. If you've got less than six features, you are very likely missing things or your features are too big (e.g. "platforming" is not a feature, it's multiple - player movement controller, level design, player animation, etc.).

● Player movement ● Timer ● Clocks ● Power-up ● Goal	● Respawn ● Game Over ● Enemy ● Obstacle ● Moving platform

Prototype

Describe what you'll need to build for your prototype of the core mechanic of your game. What's the least you can build to test your idea? *For the infinite runner quiz game, that would mean that, at the bare minimum, my prototype should feature a player object moving forward with obstacles spawning in the way and a way to track when the player hits an obstacle. I would use simple Unity primitives for the player (gray sphere) and obstacles (red boxes).*

> At bare minimum for the prototype, the player can take control of a marble and roll through levels. I can create levels as well as the player using Unity primitives, for example the player is simply a sphere. The level itself is made out of Unity objects to form ramps and the ground.

References
Link to at least three links to other pieces of media - books, designs, other games, etc. - that have something similar to what you are trying to accomplish and explain which element you are interested in. It could have similar gameplay elements, a related story motif or an aesthetic you want to remix.

> The easiest one to reference is the game *Marble Madness* which was on various platforms, including the NES, Sega Genesis and available at arcades. Mine will be a simpler 3D version where the player races the timer, much like in Marble Madness. Unlike that game though, my game is only single-player so the levels will be designed for only one player rather than two. I am unsure if it counts as another piece of media, but the final level of the game is based-off Unity's "Create with Code Unit 4." A game I found that seems similar to mine is *Marble Race* which seems to be very similar to *Marble Madness.*

Target Audience & Platform
Who is the target audience for the game (e.g. age, interests, type of games they play, when they play)? How does that experience it (e.g. mobile, browser, AR/VR, desktop with keyboard, console with controller site-specific, etc.)? "Everybody" is not a target audience. *For example, for an educational game to teach geography, the target audience might be high schoolers who like to play quick and rewarding casual games, and it will be played in classrooms on PCs with a mouse and keyboard.*

> Since I will be uploading the game to itch.io most likely, the audience consists of people who look for free games to play on that website, short but rewarding games. I am unsure of the difficulty at the moment, but since the game will be very short and likely not too difficult, I would say it caters to a younger audience of casual gamers. It can be experienced from a Windows computer, played with a keyboard. I would like to make it playable in browser, which would make the game way more accessible, but I am unsure how to do that on itch.io.

Asset Research
This is primarily a scripting class, so the focus is not on creating your own assets. Look through the free resources to find assets that you are considering for your project. Link them below. At minimum, you should have both visual assets and sound assets linked below.

Assets for obstacles:
https://assetstore.unity.com/packages/templates/packs/obstacle-course-pack-178169

Victory sound effect:
https://freesound.org/people/ryusa/sounds/531132/

Clock asset:
https://assetstore.unity.com/packages/3d/props/interior/clock-4250

Time spent on features:

PlayerController: ~30 minutes.
Moving platform: ~1 hour (had some issues since it was deforming the player sphere).
Obstacles: ~5 minutes (I imported some obstacle assets from
https://assetstore.unity.com/packages/templates/packs/obstacle-course-pack-178169,
including the pendulum and moving walls.)
Timer: ~10 minutes
Respawn: ~20 minutes
Goal: ~10 minutes
Clock: ~30 minutes
Enemy: ~10 minutes
Game Over: ~10 minutes
Music: ~20 minutes
Title screen: ~20 minutes
Camera (follows player): ~20 minutes

I wasn't able to get sound effects to play in-game but spent at least 25 minutes trying to implement them. For some reason this was giving me trouble.

Something to note is that the pendulum and moving walls obstacles were assets taken from the Unity Asset Store, so I did not script those. I linked it in the game design document. The clock is also an asset taken from the store, though it's a model and I scripted it to add time to the timer. I also used code from the Create With Code Week 4 for the final boss fight. Everything else I scripted- respawns, moving platform, player

movement, timer, goals, etc. The music I chose were royalty free versions of Frédéric Chopin compositions. I took game textures from www.gametextures.com .