

Developer Commentary

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Prompt 1: “Jump-Man Juke” Prototype Jam 1

Create a level for the 1981 Donkey Kong Arcade game, but put your own twist on it!

Developer Commentary:

I decided to make a game that was a 2.5-dimensional platformer where your character had to evade multiple objects. The player could jump, crouch, run/move, double jump, and climb.

The game was called “Stone Mayhem” because almost every asset was made of a stone texture and the mayhem part was due to everything you had to dodge and jump over.

Some problems I ran into at first was the stairs collision box where the player would fall through. But it was a relatively simple fix of just changing the collision box. I also ran into issues with the win and lose screen where it would not display correctly. The fix I did for that was making a user widget for a canvas block of text.

This game was very fun to make and thinking of how to incorporate all the movements was very fun. I loved making the double jump ability which you will see played a big role in my next game.

I hope to come back and make proper animations for this game because I enjoy the feel of the simplicity of the 2.5D platformer.

Prompt 2: “Only One Input” Prototype Jam 2

Create a game that only uses one input! How will you reuse and re-use this input?

Developer Commentary:

Because I had so much fun making the double jump ability in the first game, I decided I would make my only input be jumping (spacebar). Which was called “Jump Mania”

This game production really taught me a lot about how jump mechanics work in Unreal Engine. I almost consider myself an expert now... well almost. I learned how to use blueprints to make multiple jumps and multiple ways of jumping. I also learned how to tweak the Z velocity of the player, the gravity of the map, and much more to get the desired outcome.

I incorporated 4 different ways of jumping: base jump (single tap spacebar), double jump (double tap spacebar), long jump (hold down spacebar), biggest jump (hold down spacebar twice).

Each jump was used to avoid each a different type of object ranging from small to large. And objects came at different times so if the player only used the biggest jump to clear the objects, they would get caught by the incoming objects because there is no pattern. While it is not randomly generated it is never the same layout.

This was also the first time I used animations in Unreal for the objects, so I had to teach myself how that worked as well.

Quality Assurance wise all the testing was done to make sure that the jumps were possible to clear and to make sure the timing was perfect. Which took me a lot of time.

I had a lot of enjoyment making this game prototype and I would like to expand on it by making randomly generated objects, while also adding more scenery. The ending is also comical as well.

Prompt 3: “Jammed!” Prototype Jam Final

Create a game with your own imagination incorporating the word “Jammed.”

Developer Commentary:

For the third and final game we were given complete freedom to do whatever you want. I followed the “Jammed” prompt by wanting to jam a bullet into something. Hence, I made a first person shooter.

My first-person shooter game was simple yet effective. The HUD had how many targets you needed to shoot and the time you had to do it. The player would run around the map shooting targets until time ran out. This made the game very speed run orientated. The player could discover different routes in the open map to optimize their time each run through.

The creation of this game gave me expansive knowledge on Unreal’s blueprint system. I learned a lot of optimization tricks and how logic and Booleans work. Being organized really helped me accomplish this. Making sure I named every asset and making comments over with my blueprint logic made the process easier.

I also worked in Unreal’s Chaos physics engine. This was fun. Seeing the targets break apart when shot was super satisfying. I loved seeing my game slowly come alive.

I also customized the gun a lot. I revamped the FPS-template gun by making it a different model with custom sound effects and even a muzzle flash. This made the gun not feel stiff and shoot like an actual gun with recoil. It also did not shoot out giant bouncy balls like the unreal-template and instead it shot bullets.

Putting it all together gave a simple yet sweet game. This game jam took a lot of patience and time management to do. Giving myself 72 hours to make three game prototypes was a lot of work. On top of that I had other finals and working my job as a modeler as well. Overall I learned about Unreal Engine and how to make a game. This was a great experience and thank you so much for reading about it.

