## MITOCW | watch?v=gDpkinitSRM

PRAMODA:	l'm Pramoda.
GILLIAN:	I'm Gillian.
PRAMODA:	Gillian. And our game is You know how on the iPhone you have those games like Jetpack Joyride or something. It's like one of those games that has a player moving infinitely, and you have to click to make it jump or go left or right. It's kind of based off of that. That was our inspiration, except it's in 3-D. Well, I guess you should just play it.
GILLIAN:	We'll demo it.
PRAMODA:	She'll just demo it.
GILLIAN:	There's music. We don't know how loud it's going to be just from my computer but
PRAMODA:	Hopefully it'll play.
AUDIENCE:	Make sure you maximize [INAUDIBLE].
PRAMODA:	So the cube is moving infinitely in the plain. You can collect coins, and that'll make your score go up. If you touch a cactus, those are like enemies. That'll destroy your lives. You start off with five lives. What she just picked up is a capsule. So you see the little bar at the bottom, that's how much fuel you have. You can only fly with just hitting space bar. Fly for OK.
GILLIAN:	You can go underwater.
PRAMODA:	Yeah, you can also go underwater. So there's coins under the water. So you go under there, and you can collect secret coins. And then you fly by pressing space bar, but if you see the bar down there, if you run out of fuel you can't fly in the field anymore. And so you just keep going. I think we touched a few cactuses along the way.
GILLIAN:	Did we? You can lose a life.
PRAMODA:	You lose a life by touching the enemies.
GILLIAN:	I'll get another capsule.
PRAMODA:	Now she can fly. We have three worlds. So this is the desert world, and then she is going into the snow world which also has coins.
GILLIAN:	It's pretty simple.
PRAMODA:	Then obviously the coins spin around. This world isn't as long as the desert world. You can see the forest world showing up already. There's also coins in the air, but you can only get them if you have fuel. You have to know exactly where they are. There you go. I think our high score is 20, so if anyone can beat that
GILLIAN:	I'm about to run out of fuel, as you can see on the bottom left. And you have this thing at the top where you click it and it mutes the music. These are conifer trees.

**PRAMODA:** So you can run into them.

**GILLIAN:** You can hit them. The grass is actually compiled, so you can see how you're kind of submerged in the grass.

**PRAMODA:** So it's like going through a meadow. And it's funny because the grass is actually a bunch of little trees. You can't see it now, but if you zoom in infinitely you'll see the tiny little trees swaying. It's really funny.

**GILLIAN:** You basically get to the end of the world.

**PRAMODA:** And then that is the end of the game. And then I think you will fall infinitely.

GILLIAN: You will [INAUDIBLE].

**PRAMODA:** You just fall infinitely into space. That's our game.

GILLIAN: So we can talk about some challenges that we had. Basically we split up the work into two separate groups. I mostly worked on building the world, because I found the terraforming tool of Unity fascinating. I spent hours doing that. It's so cool. So a lot of the more complicated things-- you can see the canyons and the cactus and the trees-- were imported from Unity Assets. All of them were free, although there are some that are up to \$40. And basically the ground, the terrain I hand-created, but the canyons and cacti were created and imported. But I did hand-place all of them, and I hand-designed it.

The river-- Let's see if I can zoom in. The river was interesting to create because-- It's not that hard. Unity makes it relatively easy for you, but to get it to have-- To apply the physics to the river properly is kind of complicated. You can't really tell because of the way we have it, but there's actually water everywhere in this world. And if you dig deep enough, you will get a pool. So I can show you that.

AUDIENCE: It's like real life, or something. You just keep digging and there's water.

- **GILLIAN:** So, let's see. Inspect-- this is how you do the terrain. Here, can you hold that? You can actually do this, and then you can see water coming up. You can make it go up like that, but I don't want to make it ugly. So I had a lot of fun doing that. And then she worked on the coding parts, as far as the game track.
- PRAMODA: I did mostly the code. There's not really that many different codes. I don't know if you can-- Where are the scripts? Right. So there's really only a few simple codes over there, but-- So the coins, they have their own little code so that they spin around, which-- That's the code for the player. Just the player.

So the weirdest part was to get the cube to always move infinitely. So originally you could move it forward and backwards, but we just had to figure out how to make it so it never moves backwards. That's not an option. So that was just something different that I had to figure out how to do.

And then this is just a bunch of different codes. Actually, the hardest part I think was doing the health bar, to make it go down. So obviously you can make integers go down, but to make that visually happen was really weird. But you just have to use a local scale or something like that. So that was pretty simple after I figured it out, I guess, but in the process it was hard.

**GILLIAN:** Overall, the game was really fun to make. We actually worked on it a lot, on our own time after class. She was here until 11 last night at my dorm room working on it.

PRAMODA:	Because we were like
GILLIAN:	It was maybe 30% done until last night.
PRAMODA:	And it really came together last night. And we were like, what could we add more? I think we just kept on going, and at a certain point in time we were like, we should stop now. This is enough. That's about it.
GILLIAN:	That was our game.
AUDIENCE:	What were the controls?
GILLIAN:	Just arrows. The left and right arrow, and then space bar.
PRAMODA:	Yeah, that's all you have. Space bar to jump, until you run out of fuel, at which point it locks the space bar so you can't.
GILLIAN:	You can't go up anymore, until you get a
AUDIENCE:	Do repeated space bars make you go higher?
PRAMODA:	Yeah, you continue to
GILLIAN:	It's like a force every time you hit the space bar, so you can go pretty high.
PRAMODA:	So you continue to fly.
AUDIENCE:	Cool.
AUDIENCE:	Any other questions?
	[APPLAUSE]
GILLIAN:	Yay.