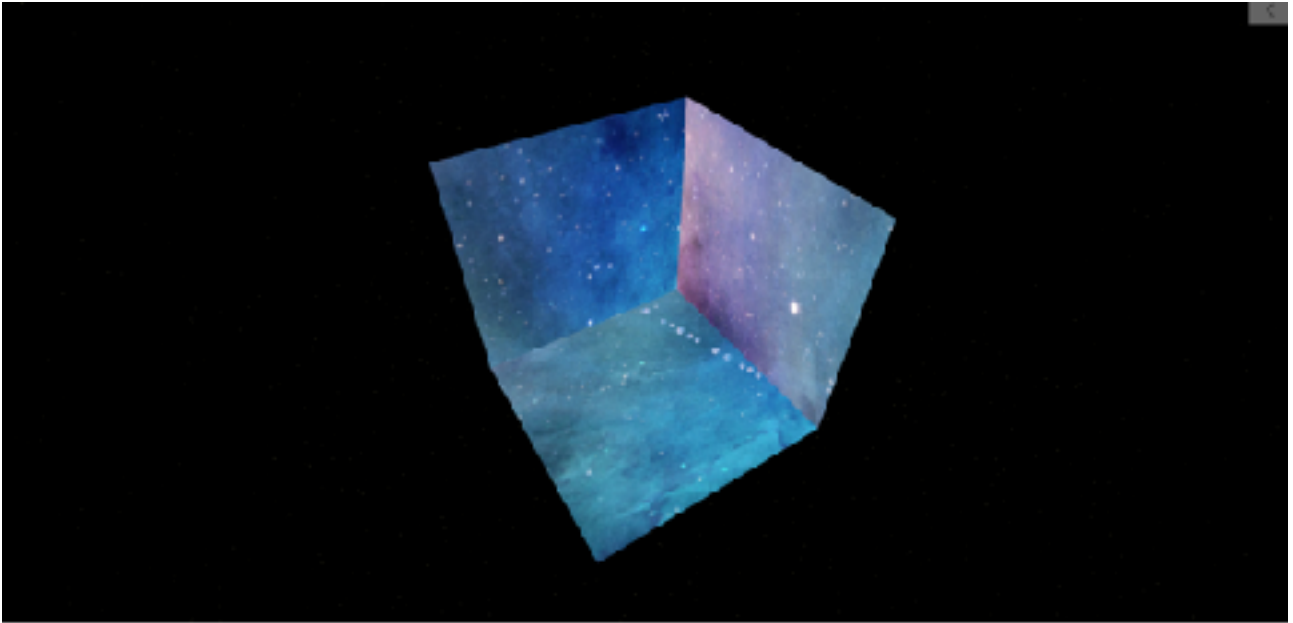


DESCRIPTION – CODING ONE

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CONCEPT

This is the story. A planet carrying the heart of a diamond spinning on its own. It thinks it is the only planet in the universe. It always feel lonely , but in fact there are 12 other planets revolving around it.

And the other planets think there are only 13 planets in the world, and they think the end of the universe is square shaped.

But in fact, beyond the square space is the real universe. All of them are a small part of the entire universe.

I hope that through this story people can understand that the meaning of life is keeping searching, exploring and finding new perspective to see the world. There always has something beyond us, there always has something new.

And I also want to tell everyone that we are not alone. There always has someone be there for us.

CODING PART

Firstly, I add a background music into my coding. (week2)

```
var listener = new THREE.AudioListener();
var audio = new THREE.Audio(listener);

var audioLoader = new THREE.AudioLoader();

audioLoader.load('mystical.mp3', function(AudioBuffer) {

    audio.setBuffer(AudioBuffer);
    audio.setLoop(true);
    audio.setVolume(0.1);

    audio.play();
});
```

Secondly, I use three.js to add some geometries as the planets.(week7) And I attached pink and blue textures to it.

```
var geometryTorus = new THREE.TorusGeometry(3,0.2,10,60);
var geometryIco = new THREE.IcosahedronGeometry(2,2);
var geometry = new THREE.DodecahedronGeometry(0, 0, 0);
var geometryIco2 = new THREE.IcosahedronGeometry(5,5);
var geometryIco3 = new THREE.IcosahedronGeometry(5,5);
var geometryIco4 = new THREE.IcosahedronGeometry(4,5);
var geometryIco5 = new THREE.IcosahedronGeometry(4,5);
var geometryIco6 = new THREE.IcosahedronGeometry(3,5);
var geometryIco7 = new THREE.IcosahedronGeometry(4,4);
var geometryIco8 = new THREE.IcosahedronGeometry(3,6);
```

Thirdly, I build a skybox outside of those planets as a box universe. This box symbolizes the cube universe which 'locked' those planets.

```
var materialsky = new THREE.MeshBasicMaterial({map: myTexture});

let materialArray = [];
let texture_1 = new THREE.TextureLoader().load( '1.png');
let texture_2 = new THREE.TextureLoader().load( '2.png');
let texture_3 = new THREE.TextureLoader().load( '3.png');
let texture_4 = new THREE.TextureLoader().load( '4.png');
let texture_5 = new THREE.TextureLoader().load( '5.png');
let texture_6 = new THREE.TextureLoader().load( '6.png');
```

And then, I made rotations and revolutions of those planets, The middle sphere is a sidereal which only rotates. The other twelve spheres are planets, orbiting the star while rotating. Now the geometries rotating made this scene looks like animation. (week 6)

```

angle += 0.005;

var x = 30 * Math.sin(angle);
var y = 30 * Math.cos(angle);
var z = 30 * Math.cos(angle);

cube2.position.set(x,y*1.2,z*2);
cube3.position.set(x*2,y,z*1.5);
cube4.position.set(x,y*1.3,z);
cube5.position.set(x*1.3,y*1.2,z*1.1);
cube6.position.set(x*0.5,y*2,z*1.2);
cube7.position.set(x*1.5,y,z);

function animate() {
    requestAnimationFrame( animate );

    torus.rotation.y+=0.01;
    torus.rotation.x+=0.005;
    skybox.rotation.y +=0.001;
    cube.rotation.y+=0.01;
    cube.rotation.x+=0.01;
    cube2.rotation.y+=0.02;
    cube2.rotation.x+=0.02;
    cube3.rotation.y+=0.03;
    cube3.rotation.x+=0.01;

```

At last, I built up a ‘universe’ which full of stars as a background. And the scene of universe can also controlled by moving mouse.

```

var geom = new THREE.Geometry();
//set up stars
var material = new THREE.ParticleBasicMaterial({
    size: 0.01,
    vertexColors: true
});
var n = 1000;
for (var i = 0; i < 3000; i++) {
    var particle = new THREE.Vector3(
        (Math.random() - 0.5) * n,
        (Math.random() - 0.5) * n,
        (Math.random() - 0.5) * n
    );
    geom.vertices.push(particle);
    let color_ = Math.random();
    geom.colors.push(new THREE.Color(color_, color_, color_ * 0.6));
}
var cloud = new THREE.ParticleSystem(geom, material);

scene.add(cloud)

```

Those are the progresses of my coding.

CONCLUSION

For the coding part, I used the knowledge I learnt from week 2, week 6 and week7's classes. I combine the music audio and 3D things in this project.

In this project, I also want to achieve that the volume of the sound changes with the zoom of the screen and the movement of the mouse. I also wanted to add some 'shooting stars' to the project, which are 'glowing spheres' that orbit sidereal rapidly. But I didn't achieve this goal unfortunately.

And in the future study of coding two, I want to learn more about the combination of music and images. For the next step, I hope that in future projects, I can use code to make the image change according to the rhythm of the sound. I also want to learn how to control the value change of each pixel of the image by moving the mouse. I will use these in my next project if I can.

In the previous concept part, I explained the point of the project. Here I want to add one of my views as the end of this description.

The famous American critic H.L.Mencken said 'the cosmos is a gigantic fly-wheel making 10,000 revolutions a minute. Man is a sick fly taking a dizzy ride on it.'. And I'd like to add one more line of this quote.

'The cosmos is a gigantic fly-wheel making 10,000 revolutions a minute. Man is a sick fly taking a dizzy ride on it. But without flies, there is no universe.'