

Fun 06 : Three.js

- สร้าง Scene 3 มิติ ตามจินตนาการ โดยใช้ Three-React-Fiber
- มีการแสดงหน้าเว็บไซต์โดยใช้ iframe
- มี Model 3 มิติ อย่างน้อย 3 ชิ้น
- มี Text แสดง อย่างน้อยชื่อของตนเอง

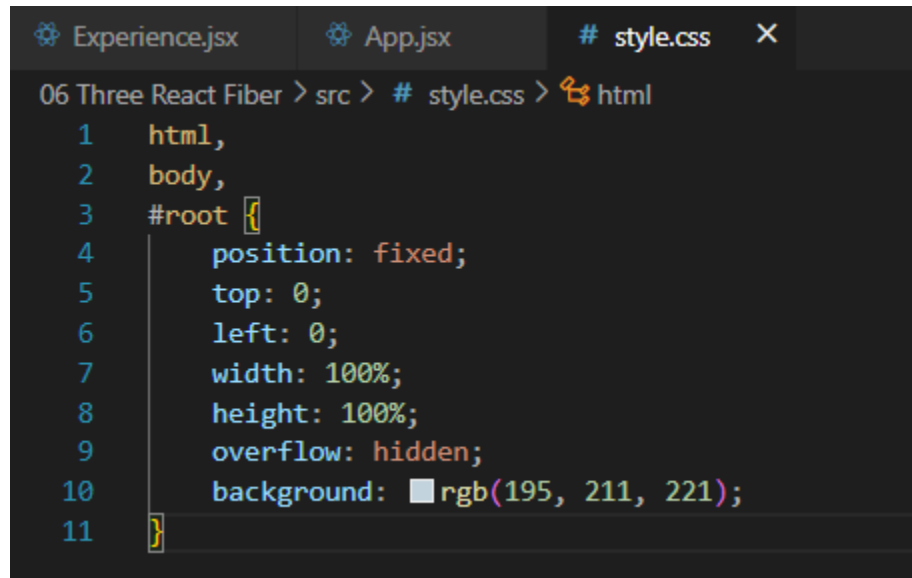
App.jsx

- sets up a 3D scene using Three.js and react-three-fiber.

```
Experience.jsx  App.jsx  X  # style.css
06 Three React Fiber > src > App.jsx > ...
1  import * as THREE from 'three'
2  import { Canvas } from '@react-three/fiber'
3  import Experience from './Experience.jsx'
4  import './style.css'
5
6  function App() {
7    return (
8      <>
9        <Canvas gl={{
10          antialias: true,
11          toneMapping: THREE.ACESFilmicToneMapping
12        }}
13        camera={{
14          fov: 45, near: 0.1, far: 200,
15          position: [3, 2, 6]
16        }}
17      >
18        <Experience />
19      </Canvas>
20    </>
21  )
22  }
23
24  export default App
25
```

Style.css

- setup creates a fullscreen 3D experience

A screenshot of a code editor with a dark theme. The editor has three tabs at the top: 'Experience.jsx', 'App.jsx', and '# style.css'. The '# style.css' tab is active. The breadcrumb navigation shows the path: '06 Three React Fiber > src > # style.css > html'. The code in the editor is as follows:

```
1  html,
2  body,
3  #root {
4      position: fixed;
5      top: 0;
6      left: 0;
7      width: 100%;
8      height: 100%;
9      overflow: hidden;
10     background: #rgb(195, 211, 221);
11 }
```

Experience.jsx

- Import libraries and add the objects from web :
<https://market.pmnd.rs/>
- Show and adjust the object to the position we want to.
- Add the message box from Dr. Suriya.
- Add two websites for my computer and my phone.
- Add my name as a text.
- Add some shadow.

```
Experience.jsx × App.jsx # style.css
06 Three React Fiber > src > Experience.jsx > Experience
1 import {
2   ContactShadows, PresentationControls,
3   Environment, useGLTF,
4   OrbitControls, Text, Html
5 } from '@react-three/drei'
6
7
8 export default function Experience() {
9   // https://market.pmd.rs/
10  const computer = useGLTF('https://vazxmijjsiawhamofees.supabase.co/storage/v1/object/public/models/macbook/model.gltf')
11  const table = useGLTF('https://vazxmijjsiawhamofees.supabase.co/storage/v1/object/public/models/table/model.gltf');
12  const book = useGLTF('https://vazxmijjsiawhamofees.supabase.co/storage/v1/object/public/models/open-book/model.gltf');
13  const bookcase = useGLTF('https://vazxmijjsiawhamofees.supabase.co/storage/v1/object/public/models/bookcase-wide/model.gltf');
14  const pizza = useGLTF('https://vazxmijjsiawhamofees.supabase.co/storage/v1/object/public/models/pizza/model.gltf');
15  const cactus = useGLTF('https://vazxmijjsiawhamofees.supabase.co/storage/v1/object/public/models/cactus/model.gltf');
16  const iPhone = useGLTF('https://vazxmijjsiawhamofees.supabase.co/storage/v1/object/public/models/iphone-x/model.gltf');
17  const cup = useGLTF('https://vazxmijjsiawhamofees.supabase.co/storage/v1/object/public/models/mug/model.gltf');
18}
```

Add the object link to the const name.

```
Experience.jsx × App.jsx # style.css
06 Three React Fiber > src > Experience.jsx > Experience
8 export default function Experience() {
19   return <>
20     <OrbitControls makeDefault />
21     <Environment preset="city" />
22
23     /* ----- Object ----- */
24     <PresentationControls
25       global rotation={[0.13, 0.1, 0]} polar=[[- 0.4, 0.2]] azimuth=[[- 1, 0.75]]
26       config={{ mass: 2, tension: 400 }} snap={{ mass: 4, tension: 400 }}
27     >
28       <primitive object={table.scene} position={[0, -1.5, 0]} scale={3.0} />
29       <primitive object={computer.scene} position={[0, 3.1, 0.3]} scale={1.0} />
30       <primitive object={book.scene} position={[3.5, 3.6, 0.5]} scale={3.0} />
31       <primitive object={pizza.scene} position=[[-3.0, 3.5, 0.5]] scale={2.5} />
32       <primitive object={cactus.scene} position=[[-4.5, 3.5, -1.0]] scale={0.5} />
33       <primitive object={iPhone.scene} position={[2.5, 3.7, -1.0]} scale={0.3} />
34       <primitive object={cup.scene} position={[4.5, 3.4, -1.0]} scale={0.5} />
35       <primitive object={bookcase.scene} position={[3.0, 0.0, -4.0]} scale={4.0} />
36     </PresentationControls>
26
```

Show the object and adjust their position.

```
Experience.jsx × App.jsx # style.css
06 Three React Fiber > src > Experience.jsx > Experience
8 export default function Experience() {
37     /* ----- Message ----- */
38     <Html
39         position={[-1, 6.3, -1.5]}
40         wrapperClass="label"
41         center
42         distanceFactor={6}
43         style={{
44             background: '■ rgb(223, 217, 50)',
45             color: 'black',
46             padding: '15px 40px',
47             borderRadius: '20px',
48             fontSize: '20px',
49             fontWeight: 'bold',
50             width: '200px',
51             whiteSpace: 'nowrap'
52         }}
53     >
54         Dr. SURIYA : STUDY!!!
55     </Html>
```

Message box from Dr.Suriya told me to study eiei.

```
Experience.jsx × App.jsx # style.css
06 Three React Fiber > src > Experience.jsx > Experience
8 export default function Experience() {
56
57     /* ----- Website ----- */
58     <Html
59       position={[-0.825, 5.2, -1.2]}
60       rotation-x={-0.25}
61       transform
62       distanceFactor={1.2}
63       style={{ width: '450px', height: '280px' }}
64     >
65       <iframe
66         src="https://app.leb2.org/class/858352/online-course"
67         width="1000"
68         height="650"
69       />
70     </Html>
71     <Html
72       position={[3.0125, 4.105, -1.0]}
73       rotation-x={0.0}
74       transform
75       distanceFactor={1.2}
76       style={{ width: '450px', height: '280px' }}
77     >
78       <iframe
79         src="https://translate.google.co.th"
80         width="140"
81         height="300"
82       />
83     </Html>
```

Two websites

- First is for my computer showing the LEB2 of Dr.Suriya video.
- Second is for my phone showing the google translate (actually I want to link YouTube but they are not allow).

```
Experience.jsx X App.jsx # style.css
06 Three React Fiber > src > Experience.jsx > Experience
8   export default function Experience() {
84
85       {/* ----- Text ----- */}
86       <Text
87           font="./PollerOne-Regular.woff"
88           fontSize={1}
89           color='rgb(50, 52, 49)'
90           position={[2, 9.75, -5.75]}
91           rotation-y={0.0}
92           maxWidth={2}
93           textAlign='center'
94       >
95           THITIPORN SUWANNAWONG
96       </Text>
97   </PresentationControls>
98
99       {/* ----- Shadow ----- */}
100      <ContactShadows
101          position={[0, -1.55, 0]}
102          opacity={0.85}
103          scale={15}
104          blur={3.5}
105          far={5}
106          resolution={1024}
107      />
108  </>
109 }
```

I added my full name as a text because Dr.Suriya want to and add some shadow to make an object reality.

RESULT

