

Outlines

Advanced class session on Animating 3D objects in a scene

I. Introduction to animation in Three.js

- A. Definition and explanation of animation
- B. Types of animation in Three.js

C. Benefits of animation in a 3D scene

II. Setting up an animation loop

- A. Overview of the animation loop
- B. Code demo to create an animation loop

C. Explanation of how the animation loop works

III. Animating object properties

- A. Overview of animating object properties
- B. Code demo to animate object properties, such as position and rotation

C. Explanation of how to control the speed and timing of animations

IV. Using keyframe animation

- A. Definition and explanation of keyframe animation
- B. Code demo to create a keyframe animation using the KeyframeTrack class

C. Explanation of how to control the timing and interpolation of keyframe animation

V. Advanced animation techniques

- A. Morph targets animation
- B. Skeletal animation
- C. Particle system animation

D. Code demos and explanations for each technique

VI. Conclusion

- A. Recap of the concepts covered in the class session
- B. Suggestions for further learning and exploration of animation in Three.js

Note: This is just an outline and can be expanded upon depending on the desired depth and length of the class session.

Importing Models Outline

I. Introduction

- A. Definition and explanation of importing 3D models
- B. Advantages of importing 3D models
- C. Supported file formats for importing 3D models

II. Preparing for 3D model import

- A. Understanding file formats and conversion tools
- B. Preparing the 3D model file for import

III. Loading a 3D model in Three.js

- A. Overview of the loading process
- B. Code demo to load a 3D model in Three.js
- C. Explanation of the loader and its options

IV. Positioning and scaling the 3D model

- A. Overview of positioning and scaling in Three.js
- B. Code demo to position and scale a 3D model in Three.js
- C. Explanation of the positioning and scaling properties

V. Applying materials to the 3D model

- A. Overview of materials in Three.js
- B. Code demo to apply materials to a 3D model in Three.js
- C. Explanation of the material properties

VI. Adding animations to the 3D model

A. Overview of animations in Three.js

B. Code demo to add animations to a 3D model in Three.js

C. Explanation of the animation properties and options

VII. Conclusion

A. Recap of the concepts covered in the demo

B. Suggestions for further learning and exploration of 3D model importing in Three.js