3D PROGRAMMING WITH JAVASCRIPT

PROLIFICIDEA.COM/JS3D

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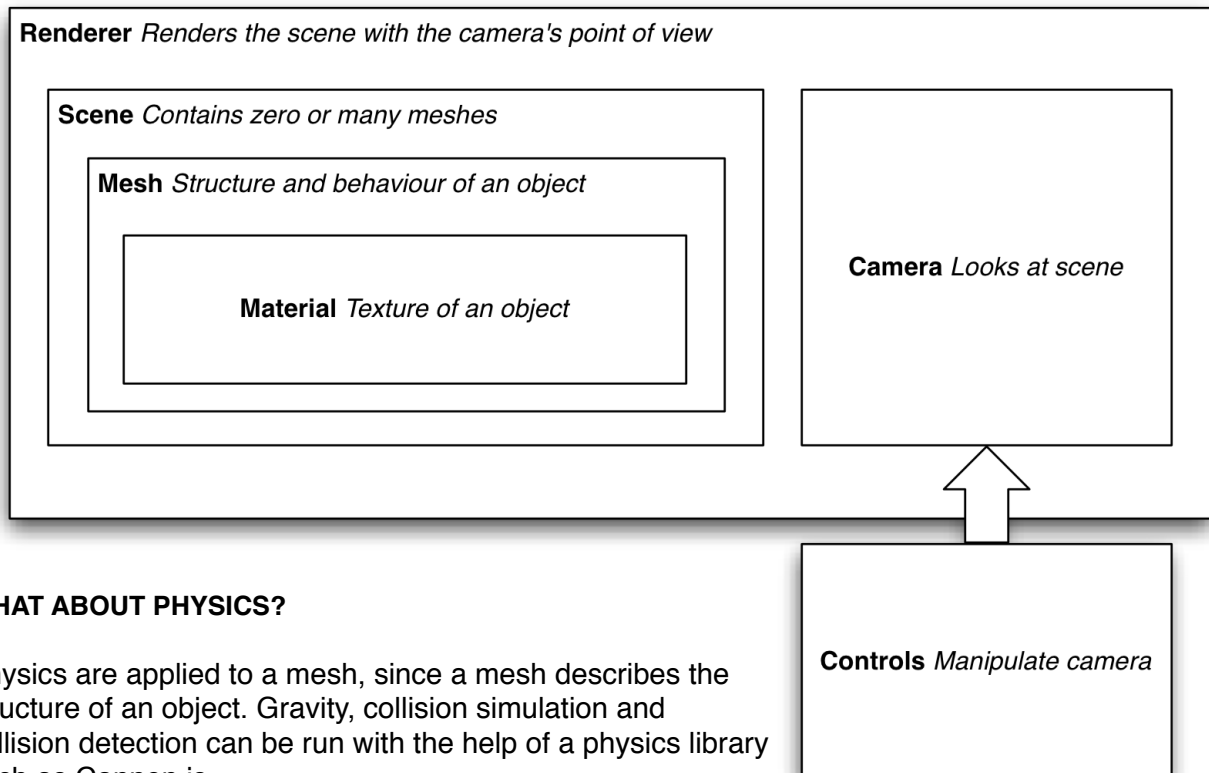**TECH**
THREE.JS CANNON.JS YEOMAN GRUNT BOWER

Developing a successful 3D project, whether it's a game, interactive application, or simply a 3D world, requires the use of tools and frameworks that can assist in creating and managing a well structured project, and most importantly, frameworks that provide a platform for the plumbing and mathematics behind rendering and interacting with 3D models. The use of Yeoman is recommended for generating a three.js project with grunt and bower support.

SETUP A THREE.JS PROJECT

```
npm install -g yo
npm install -g generator-threejs
mkdir threejsyay
cd threejsyay
yo threejs
grunt serve
```

View the amazing cube being rendered in your default browser. Usually at localhost:9000.

WHAT'S IN A 3D WORLD?

Renderer *Renders the scene with the camera's point of view*

Scene *Contains zero or many meshes*

Mesh *Structure and behaviour of an object*

Material *Texture of an object*

Camera *Looks at scene*

Controls *Manipulate camera*

WHAT ABOUT PHYSICS?

Physics are applied to a mesh, since a mesh describes the structure of an object. Gravity, collision simulation and collision detection can be run with the help of a physics library such as Cannon.js.