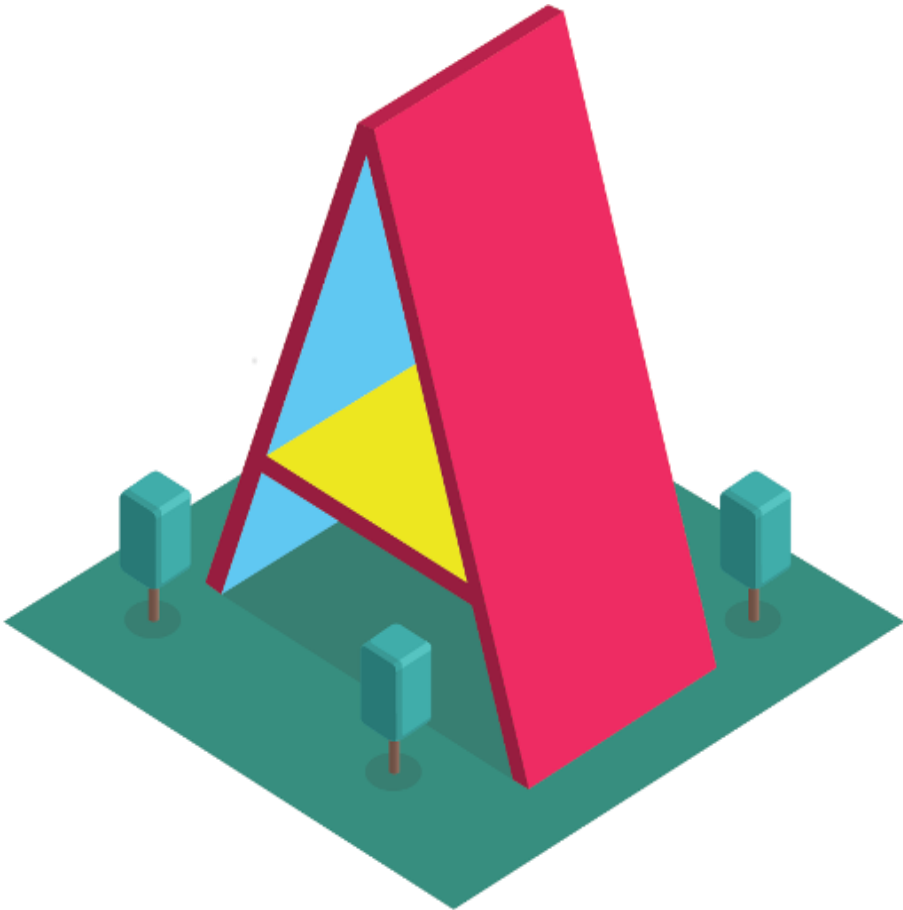


Build your world on the web

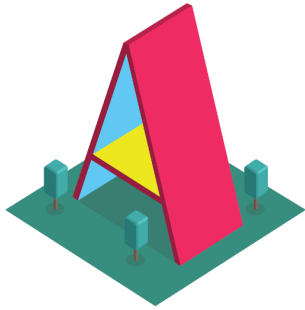
Bookklik®
TECHNOLOGIES



A-Frame
WEB FRAMEWORK

Explorer endless possibility

Software



A-Frame Web Framework

A web framework for building virtual reality experiences. Make WebVR with HTML and Entity-Component. Works on Vive, Rift, desktop, mobile platforms.



Sublime Text Editor

Sublime Text is a sophisticated text editor for code, markup and prose. You'll love the slick user interface, extraordinary features and amazing performance.

Bookklik®
TECHNOLOGIES



WampServer

WampServer is a Windows web development environment. It allows you to create web applications with Apache2, PHP and a MySQL database.

PREREQUISITE



Basic understanding of HTML

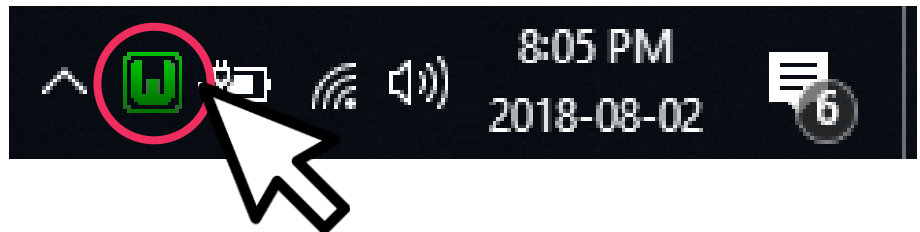
Basic understanding of 3D Modelling

Configuration



STEP 1

Find the Wampserver icon and click it



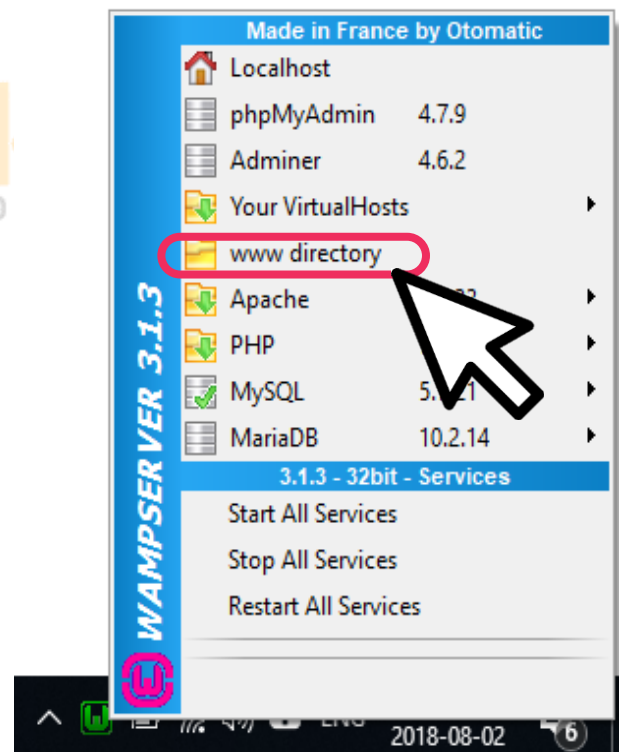
STEP 2

Look at the bottom right of your desktop and click on the green icon

STEP 3

Click on www directory

Bool
TECHNO



STEP 4

Now, create 4 folder named as below:-

- project-1
- project-2
- project-3
- project-4







project-1
project-2
project-3
project-4

Configuration

STEP 5

Open web browser and type in "localhost/"



<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory		-	
 project-1/	2018-08-01 16:51	-	
 project-2/	2018-08-01 16:52	-	
 project-3/	2018-08-01 16:52	-	
 project-4/	2018-08-01 16:52	-	
 files/	2018-08-01 12:09	-	

Apache/2.4.33 (Win32) PHP/7.2.4 Server at localhost Port 80

Bookklick®
TECHNOLOGIES

STEP 6

Open Sublime Text



I AM READY TO
GET START!

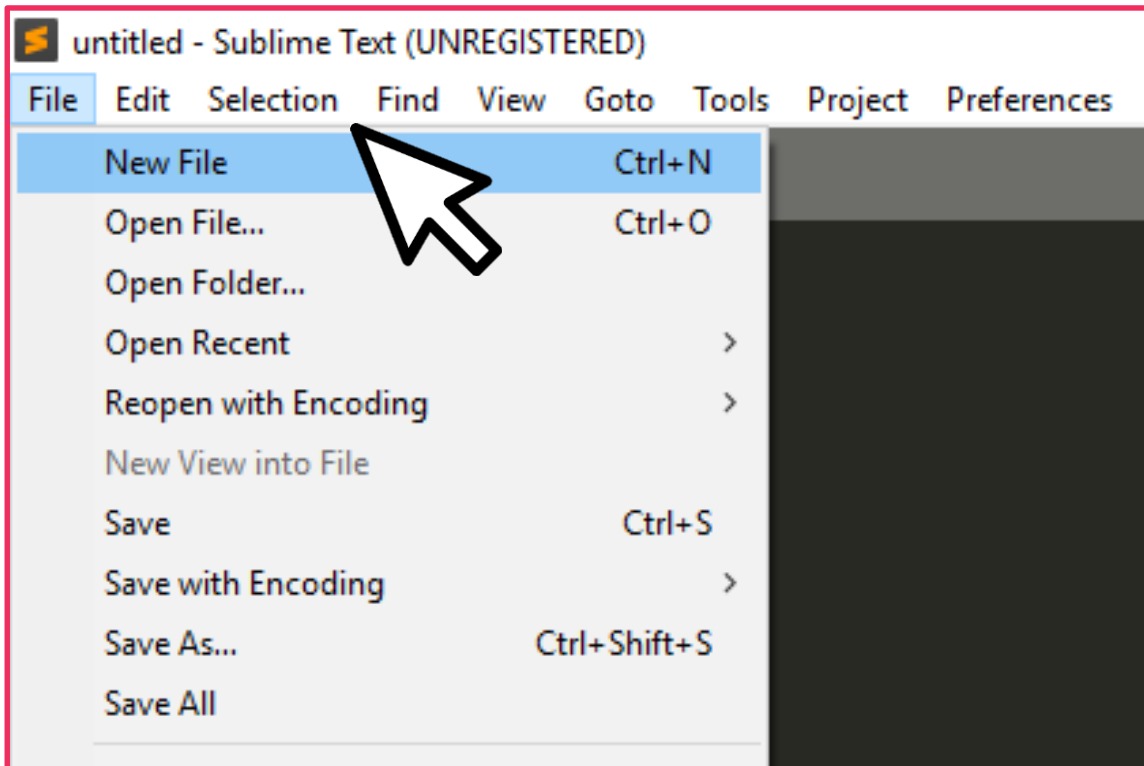
PROJECT

1

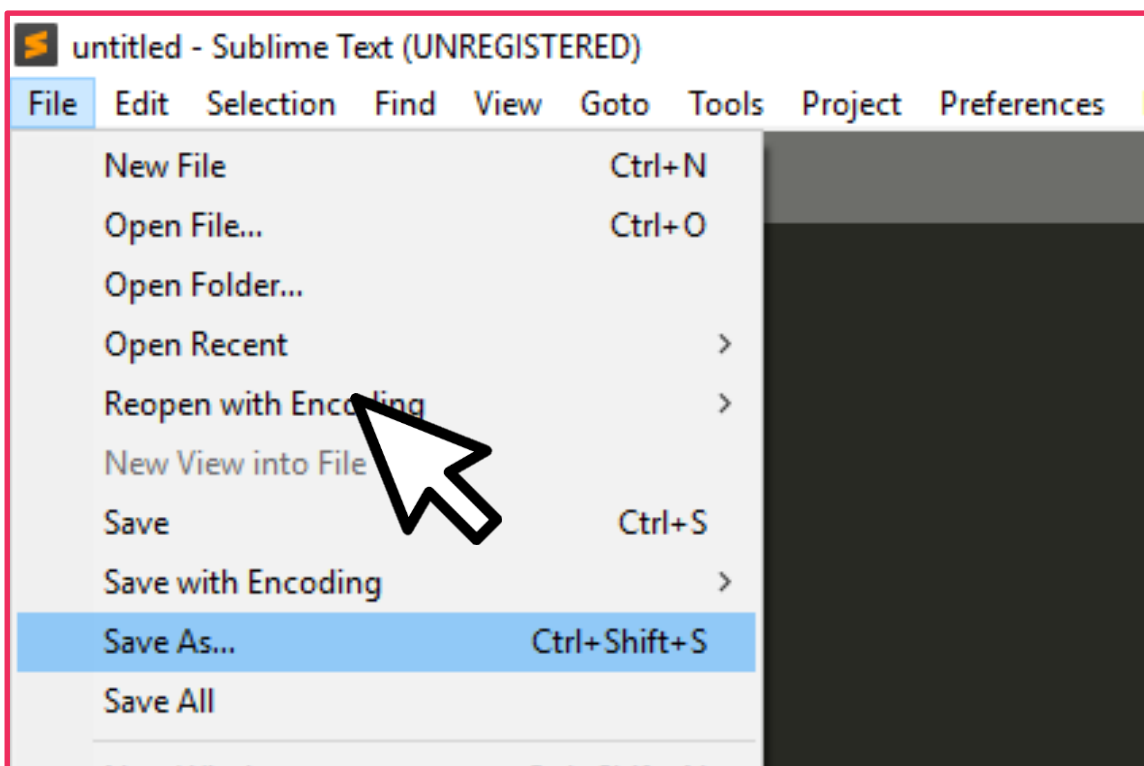


Hello World

STEP 1: Select File > New File

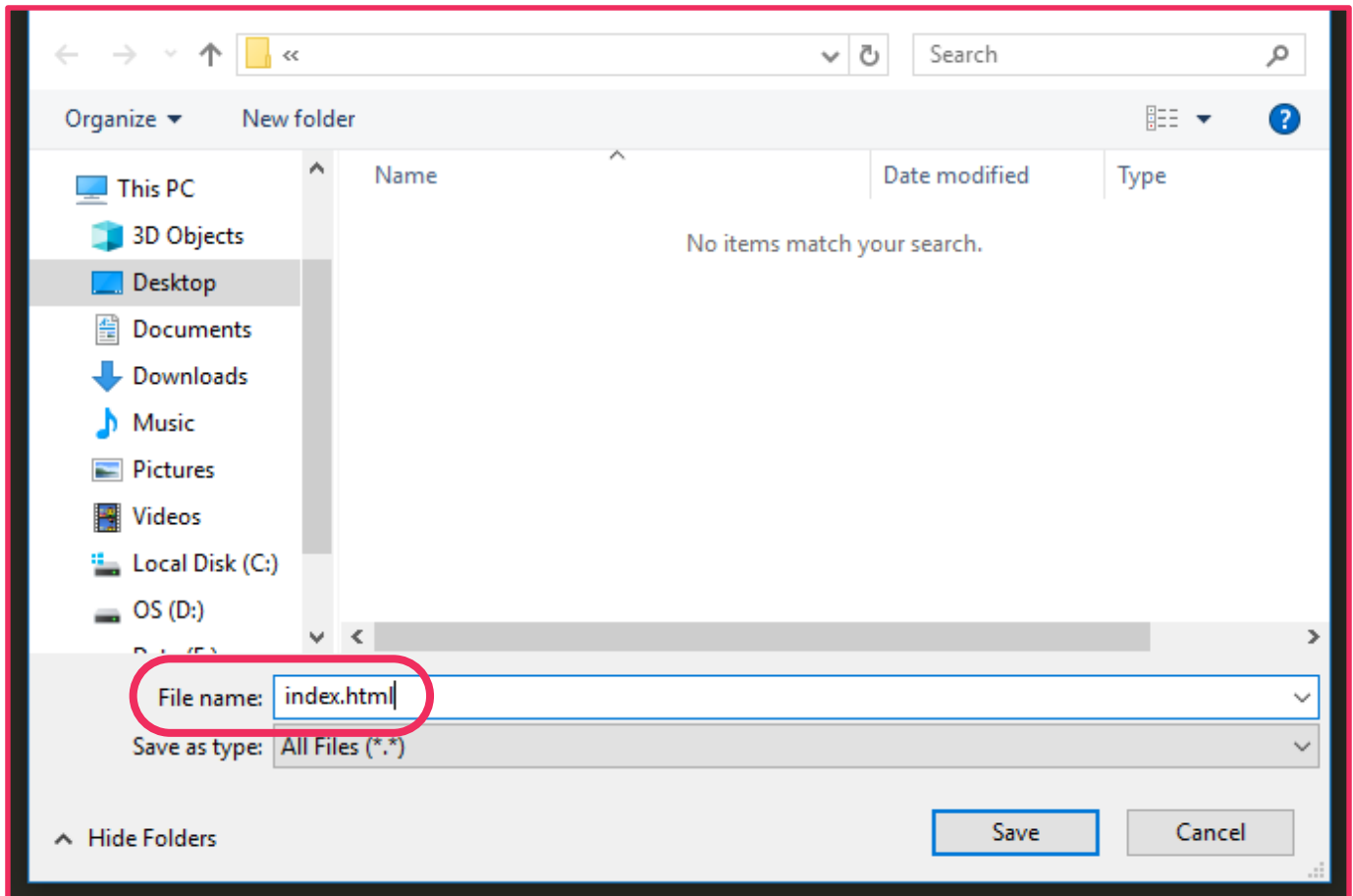


STEP 2: Select File > Save As...



Hello World

STEP 3: Save as “index.html”

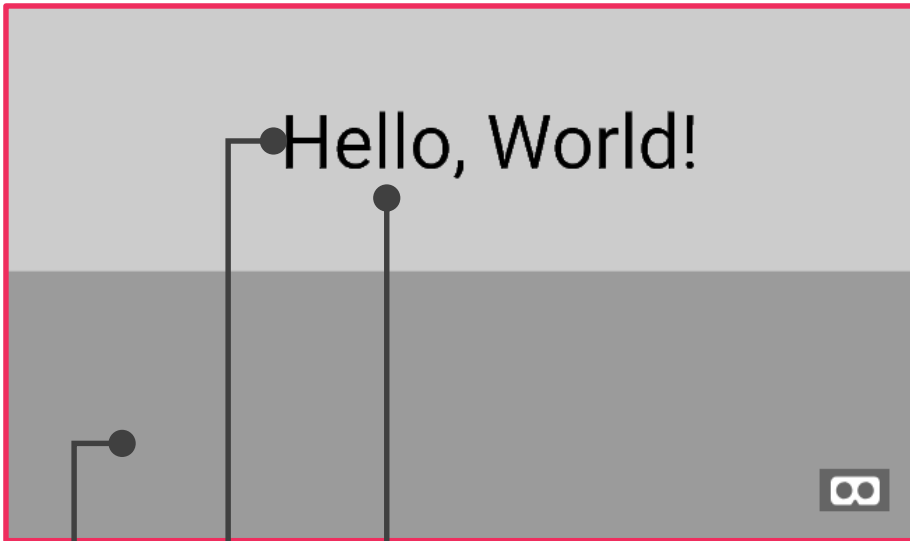


STEP 4: Type in the code below

```
<html>
  <head>
    <title>Project 1</title>
    <script src="https://aframe.io/releases/0.8.2/aframe.min.js"></script>
  </head>
  <body>
    <a-scene>
      <a-sky color="#ccc"></a-sky>
      <a-text value="Hello, World!" color="#000" position="-0.5 1.5 -1.5"></a-text>
      <a-plane color="#888" height="10" width="10" rotation="-90 0 0"></a-plane>
    </a-scene>
  </body>
</html>
```

Hello World

STEP 5: Open web browser "saved_folder/index.html"



LET'S UNDERSTAND THE CODE

```
<a-sky color="#ccc"></a-sky>
```

Create a light grey colored sky

```
<a-text value="Hello, World!" color="#000"
position="-0.5 1.5 -1.5"></a-text>
```

Created a text floating at x=-0.5, y=1.5, z=-1.5

```
<a-plane color="#888" height="10" width="10"
rotation="-90 0 0"></a-plane>
```

Created a plain rectangle with height=10 and width=10

ELEMENTS

REMEMBER

```
<a-scene>
```

Elements

```
</a-scene>
```

Every A-Frame project must start with a-scene tag

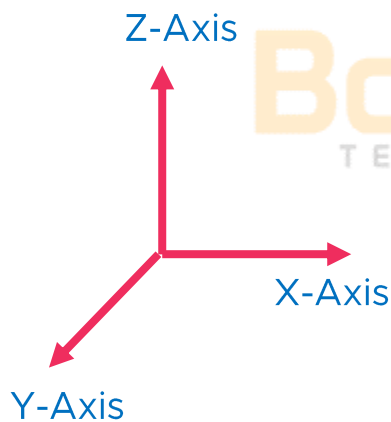
Hello World

STEP 6: You can try change the position, color, rotation and observe the difference

COLOR

Gray	#808080	Aqua	#00FFFF
Red	#FF0000	Blue	#0000FF
Yellow	#FFFF00	Navy	#000080
Lime	#00FF00	Purple	#800080
Green	#008000	Black	#000000

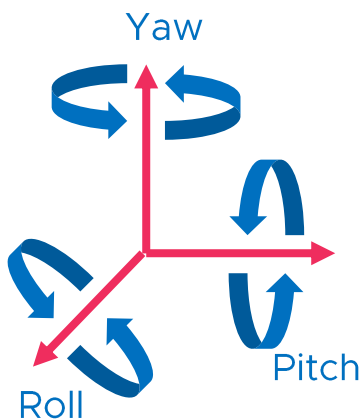
POSITION



```
position="x y z"
```

```
position="-0.5 1.0 -1.5"
```

ROTATION



```
rotation="pitch yaw roll"
```

```
rotation="0 0 90"
```

PROJECT

2

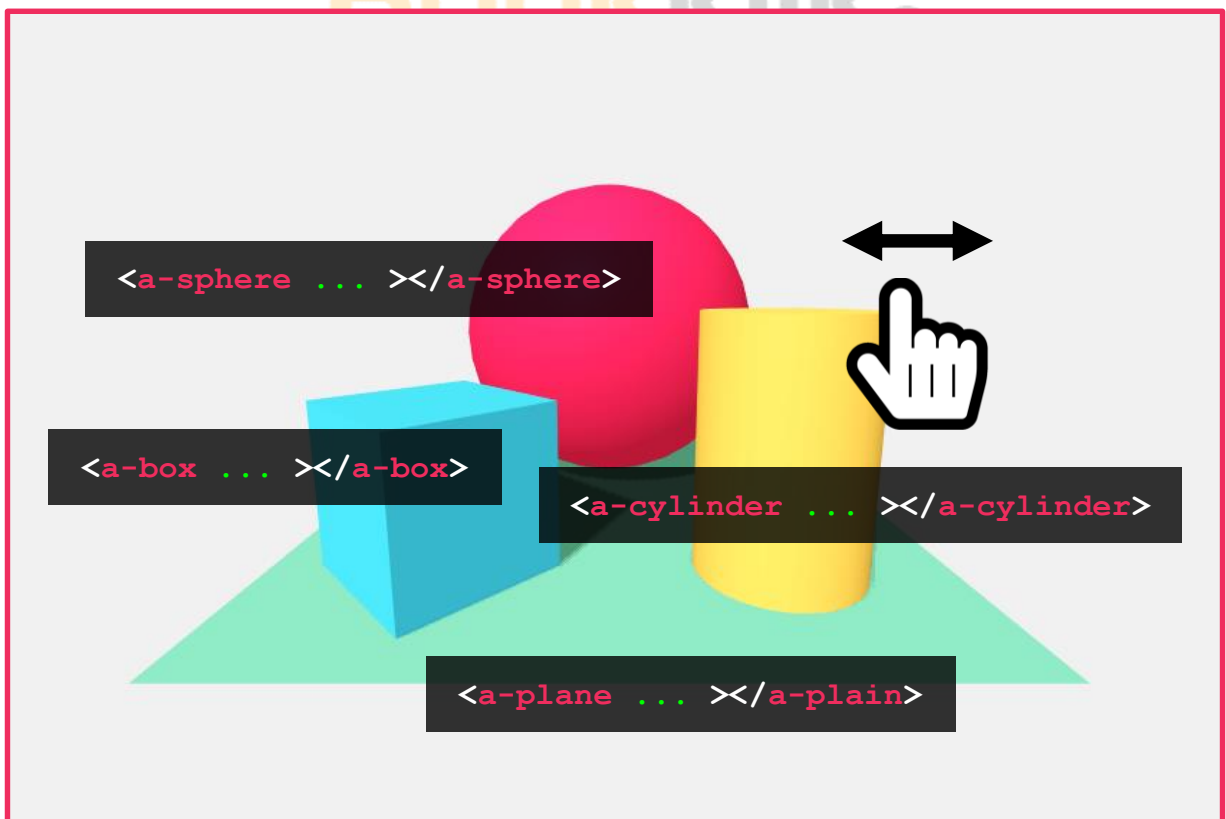


3D Object

STEP 1: Create a new file and type in the code below then save it

```
<html>
  <head>
    <title>Project 2</title>
    <script src="https://aframe.io/releases/0.8.2/aframe.min.js"></script>
  </head>
  <body>
    <a-scene>
      <a-box position="-1 0.5 -3" rotation="0 45 0" color="#4CC3D9" shadow></a-box>
      <a-sphere position="0 1.25 -5" radius="1.25" color="#EF2D5E" shadow></a-sphere>
      <a-cylinder position="1 0.75 -3" radius="0.5" height="1.5" color="#FFC65D" shadow
      ></a-cylinder>
      <a-plane position="0 0 -4" rotation="-90 0 0" width="4" height="4" color="#7BC8A4
      " shadow></a-plane>
    </a-scene>
  </body>
</html>
```

STEP 2: Open web browser "saved_folder/index.html"



PROJECT

3



360° Image

STEP 1: Create a new file and type in the code below then save it

```
<html>
  <head>
    <title>Project 3</title>
    <script src="https://aframe.io/releases/0.8.2/aframe.min.js"></script>
  </head>
  <body>
    <a-scene>
      <a-sky src="../files/psc_exhibition.jpg" rotation="0 0 0"></a-sky>
    </a-scene>
  </body>
</html>
```

STEP 2: Open web browser “saved_folder/index.html”

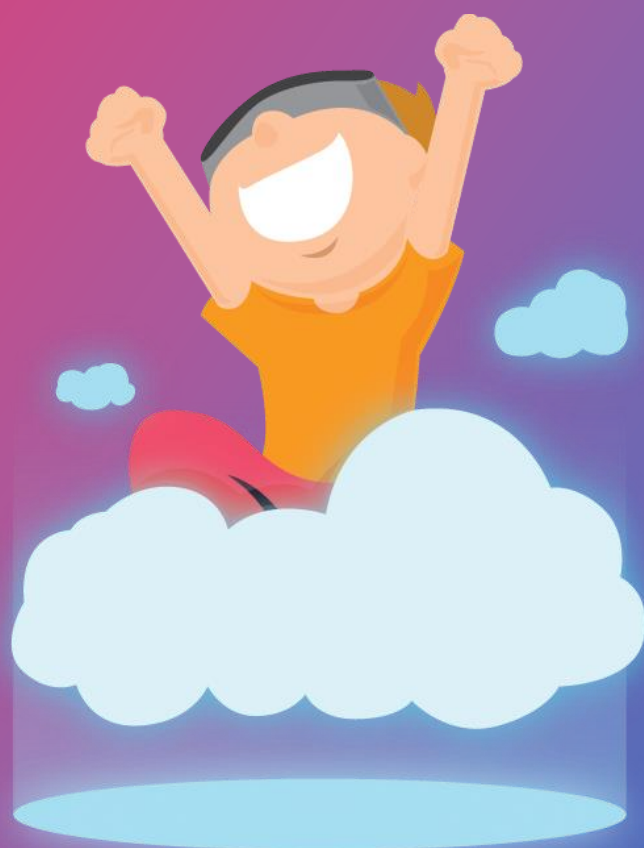


Click and drag the mouse to look around

STEP 3: Replace psc_exhibition.jpg with another 360 image from source-files folder

PROJECT

4

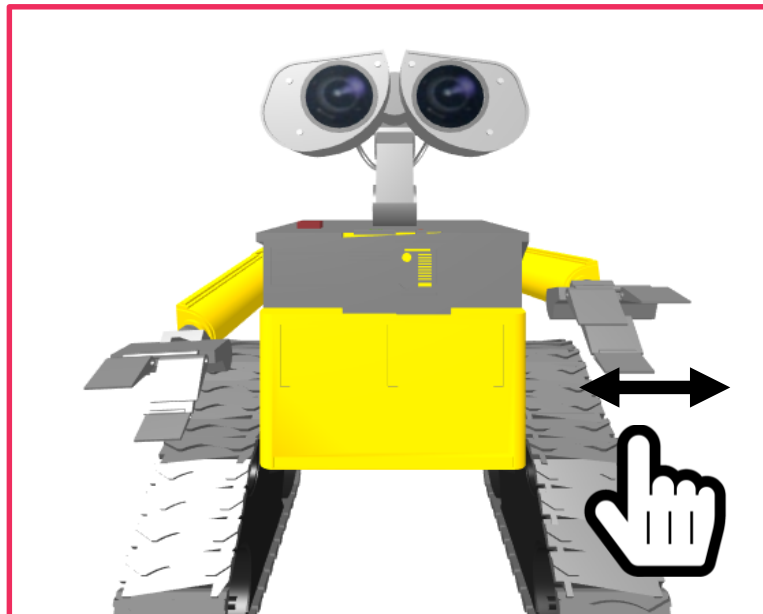


3D Model

STEP 1: Create a new file and type in the code below then save it

```
<html>
  <head>
    <title>Project 4</title>
    <script src="https://aframe.io/releases/0.8.2/aframe.min.js"></script>
  </head>
  <body>
    <a-scene>
      <a-assets>
        <a-asset-item id="walle-obj" src="../../files/walle.obj"></a-asset-item>
        <a-asset-item id="walle-mtl" src="../../files/walle.mtl"></a-asset-item>
      </a-assets>
      <a-entity obj-model="obj: #walle-obj; mtl: #walle-mtl" scale="2 2 2"
        position="0 0 -2"></a-entity>
    </a-scene>
  </body>
</html>
```

STEP 2: Open web browser "saved_folder/index.html"



Click and drag the mouse to look around

STEP 3: Replace Wall-e model with another model you have created using SketchUp software

Congratulations!

You have completed the course!

Challenge For You

Write a code that display a 3D model, text & 360 image at the same time



WHAT YOU HAVE LEARNED?

1. How to create **A-Frame** scene
2. How to display **text** in a scene
3. How to create basic **3D object** in a scene
4. How to create **360 view** in website
5. How to import **3D model** into a scene