

Dream Villa VR Scene – Documentation

Project Title: FCM.41.008.177.23

Technology Used: A-Frame (WebVR), HTML

Design Choices:

Scene Environment:

A night sky texture is used for a calm, peaceful atmosphere.

A large grass texture is applied to the ground to create a natural outdoor look.

3D Models:

A summer villa is placed as the main structure.

A cat model adds a homey and fun touch.

A swimming pool highlights a luxurious element of the villa.

Water Feature:

`<a-water>` is used to simulate realistic water, including foam and color effects.

Camera Position:

The camera is placed at an elevated position to give users a wide view of the scene when they enter.

Technical Challenges and How They Were Fixed:

Wrong HTML Tags:

`<a-asset>` was corrected to `<a-assets>`.

`<a-entity-item>` was replaced with `<a-entity>`.

Model Reference Errors:

The glTF model linking was incorrect, so it was fixed using the proper `gltf-model="#modelID"` format.

Water Opacity:

The opacity value was set too high (12), which is invalid. It was changed to a correct value (like 0.5).

Box Element Issue:

The <a-box> had a wrong property called length; it was corrected to use depth instead.

Responsive Design:

Added a viewport meta tag to make the scene look good on different screen sizes.

Future Improvements:

Add clickable areas or teleport points so users can explore the villa.

Improve lighting with better shadows and light sources.

Add simple animations like moving the cat or water ripples.

Create a toggle for switching between day and night modes.

Compress model files for faster loading and smoother performance.