Web-based Virtual Reality With A-Frame
Introduction

- Virtual Reality (VR) accessibility
- A-Frame
- Goal: Evaluate the development effort of creating VR experiences with A-Frame
A-Frame


- Syntax:
  - `<a-sphere position="3 3 -10" radius="0.7" color="red"></a-sphere>`

- Provides 3D primitives, event handlers, and components (for added functionality)
Approach

- Analyze the learning process and development effort, while documenting shortcomings and current flaws of A-Frame.

- Steps taken:
  - Learn A-Frame - online courses and A-Frame’s documentation
  - List virtual tour elements - main elements found in existing virtual tours
  - Test implementation - implement each element and document difficulties encountered
  - Integrate - integrate all elements into a virtual tour
Results

- **Difficulties found:**
  - Lack of flexibility when positioning 3D objects
  - A-Frame does not support CSS, which requires image editing for simple effects
  - Many situations require complex or custom A-Frame components
  - Limited browser support
Conclusion

- Results show that a multimedia designer with experience in web programming is able to create a VR experience using A-Frame.
- However, there are some shortcomings, such as lack of CSS styling language, improved visual editor for adjusting 3D objects, and browser support.

Reference: