



Interreg

NEXT Hungary – Slovakia – Romania – Ukraine



Co-funded by
the European Union

Root4Dig

**PARTNERSHIP
WITHOUT
BORDERS**



«Rediscovering our Common Cultural Roots and Digitalizing them for Future Generations» (HUSKROUA/23/S/2.2/007)

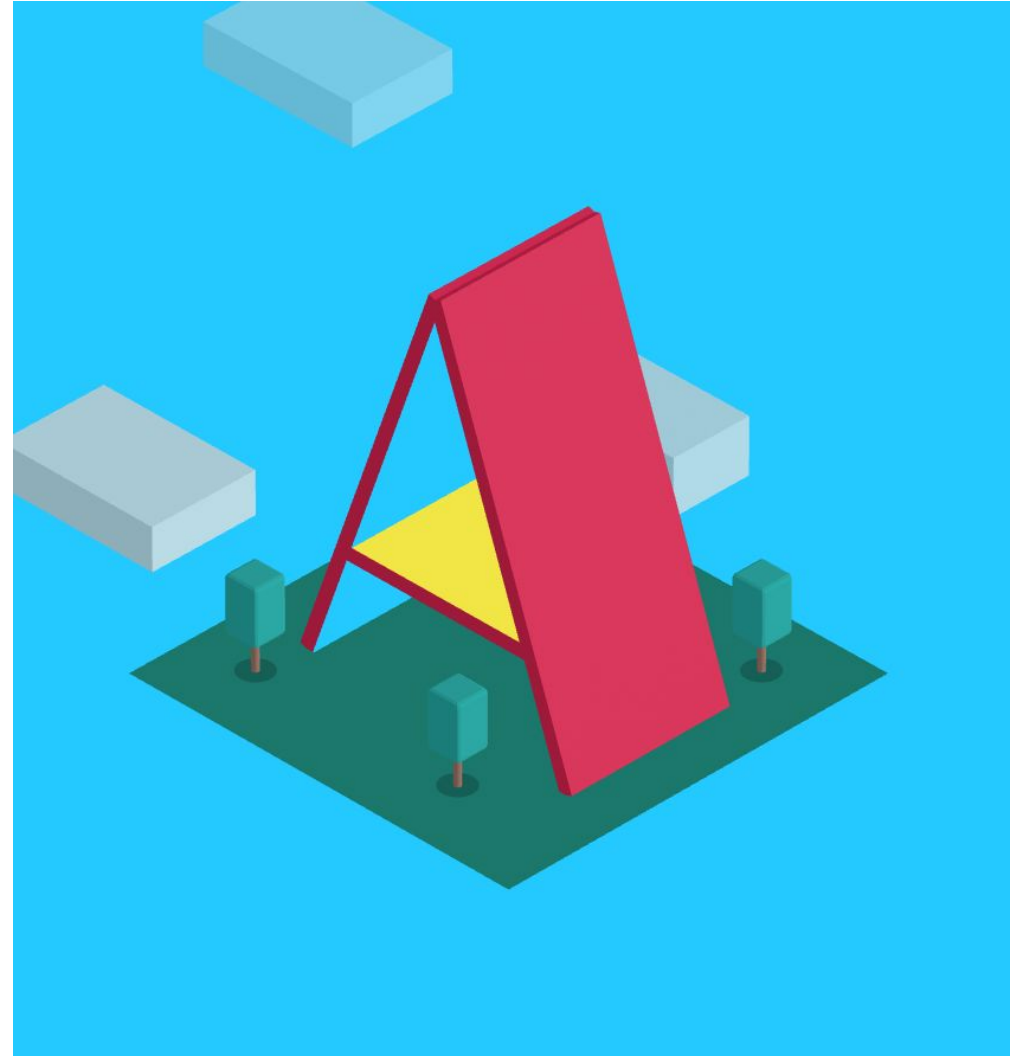
A-FRAME-BASED VIRTUAL TOUR CREATION SOFTWARE

Speakers: Vladyslav Kusyi

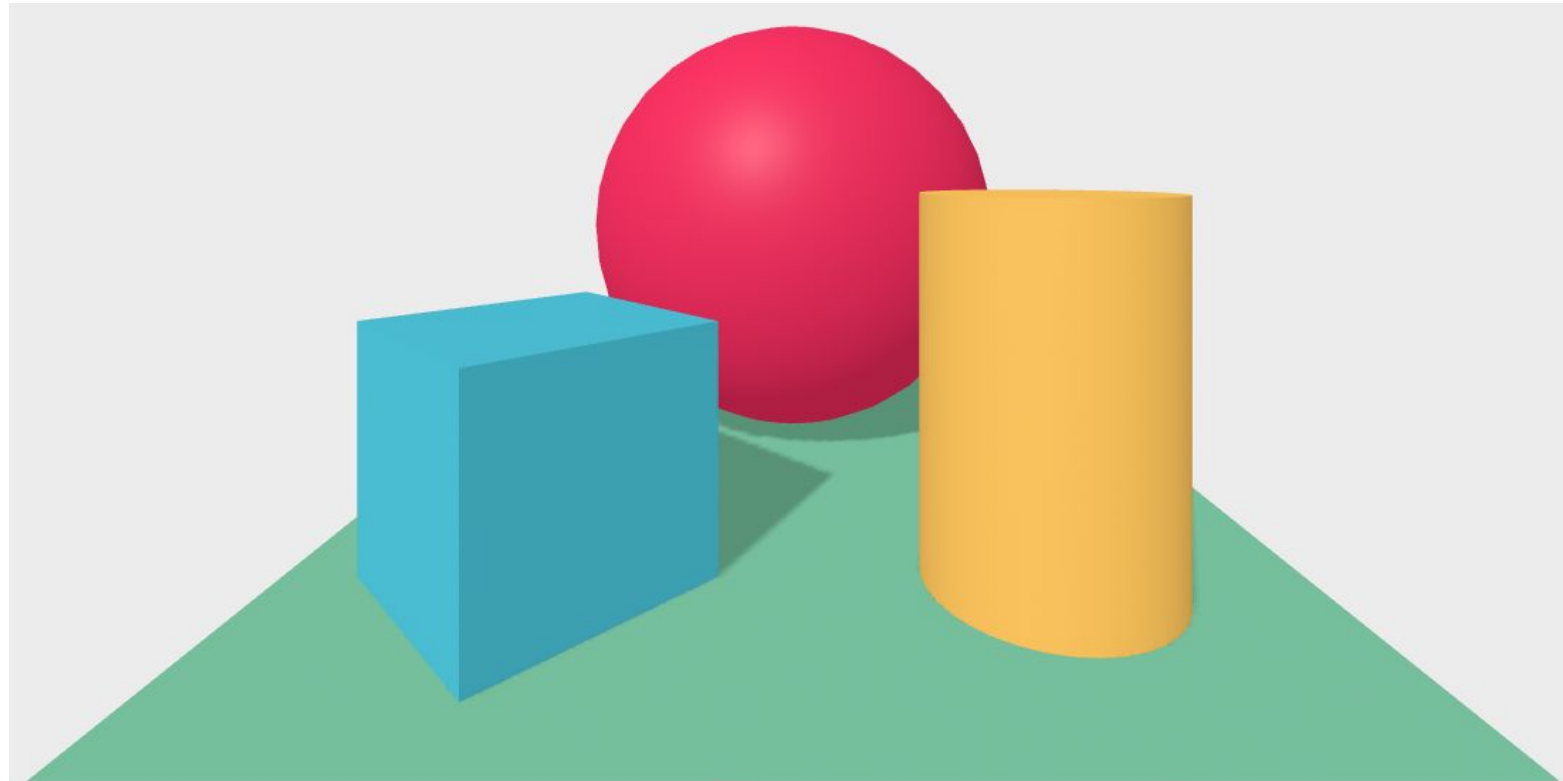
Andrii Kaminskyi

Academic Supervisor: Volodymyr Kopei

A-Frame <https://aframe.io> is an open framework that allows you to create VR/3D scenes without deep knowledge of WebGL and JavaScript, using declarative HTML elements



```
<html>
<head>
  <script src="https://aframe.io/releases/1.7.1/aframe.min.js"></script>
</head>
<body>
  <a-scene>
    <a-box position="-1 0.5 -3" rotation="0 45 0" color="#4CC3D9"></a-box>
    <a-sphere position="0 1.25 -5" radius="1.25" color="#EF2D5E"></a-sphere>
    <a-cylinder position="1 0.75 -3" radius="0.5" height="1.5" color="#FFC65D"></a-cylinder>
    <a-plane position="0 0 -4" rotation="-90 0 0" width="4" height="4" color="#7BC8A4"></a-plane>
    <a-sky color="#ECECEC"></a-sky>
  </a-scene>
</body>
</html>
```



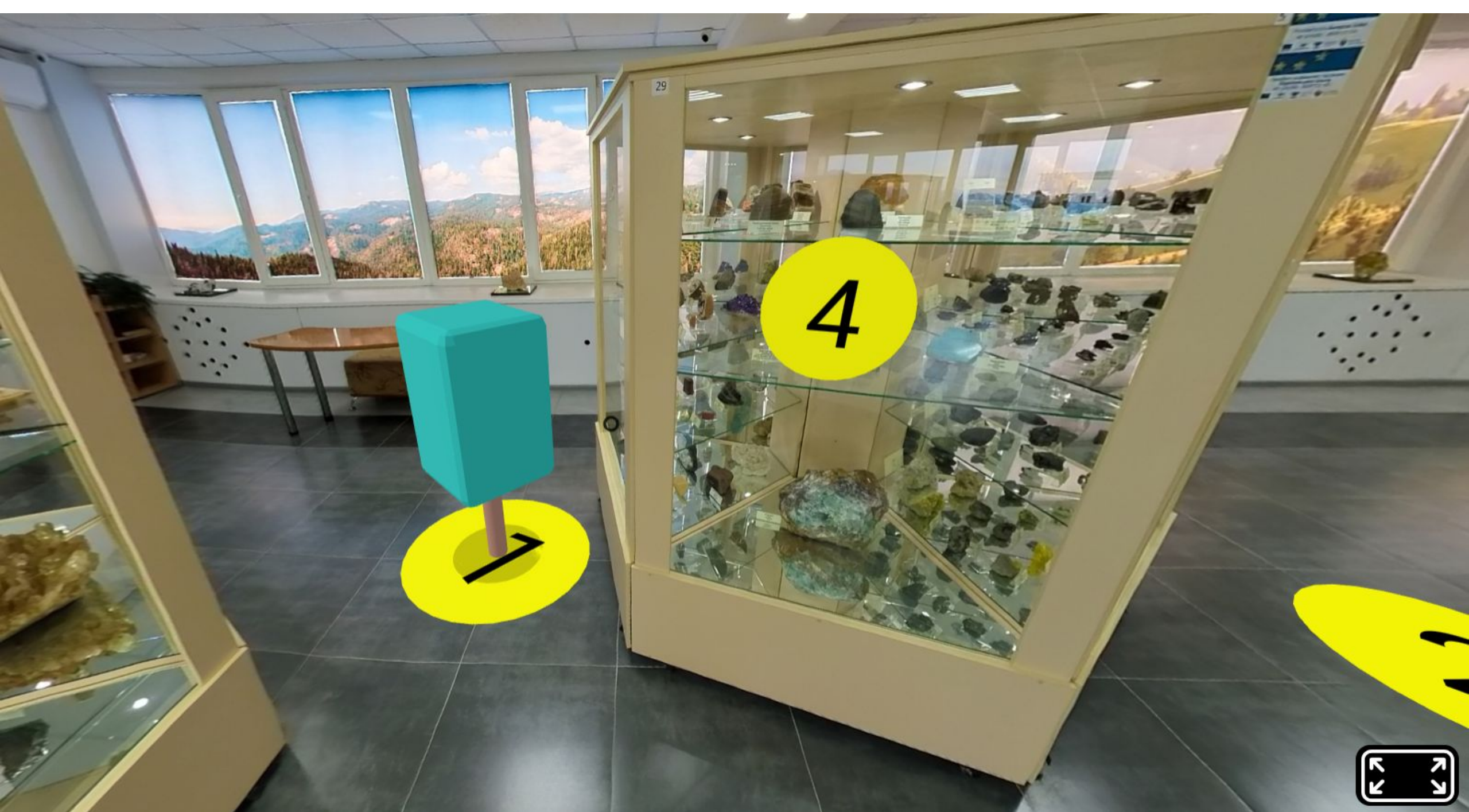


```
<a-scene inspector="url: https://cdn.jsdelivr.net/gh/aframevr/aframe-inspector@master/dist/aframe-inspector.min.js">  
  <a-sky id="sky" src="museum147.jpg" rotation="0 90 0">  
  </a-sky>  
  <a-camera> <a-cursor></a-cursor> </a-camera>  
</a-scene>
```



Data that defines the user interface:

```
const db={'museum147.jpg':  
{ 1: {src:'museum148.jpg', type:'sky', pos:'-4 -2 -7', rot:'-90 0 0'},  
  2: {src:'museum147.jpg', type:'sky', pos:'0 -2 -7', rot:'-90 0 0'},  
  3: {src:'museum149.jpg', type:'sky', pos:'4 -2 -7', rot:'-90 0 0'},  
  4: {src:'audio.mp3', type:'sound', pos:'5 -2 -5', rot:'-90 0 0'}},  
...
```



«onClick» event handler function:

```
function onClick(event){  
  const id=event.target.id;  
  //console.log('Написано:', id);  
  const c=db[current][id];  
  if (c.type!='sound') hasSoundPlayed = false;  
  if (c.type=='sky')  
  {   current=c.src;  
      document.getElementById('sky').setAttribute('src', current);  
removeCircles();  
  createCircles(current);  
  return; }  
}
```

...

Code and Example:

<https://github.com/vkopey/A-FrameTours>

<https://vkopey.github.io/A-FrameTours>

<https://youtu.be/Nw4M382wbKs>

