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Realidade aumentada - Lista 9

As atividades da lista foram realizadas no Visual Studio Code e GitHub.

Atividade 9.1 Crie uma página de RA baseada em reconhecimento de faces para inserir outros objetos GLTF ou GLB.

Link: <https://michelycastro.github.io/ra9/Atividade91>

Código:

```
<!DOCTYPE html>
<html>
  <head>
    <meta name="viewport" content="width=device-width, user-scalable=no, minimum-scale=1.0, maximum-scale=1.0">
    <script src="https://cdn.jsdelivr.net/gh/hiukim/mind-ar-js@1.1.4/dist/mindar-face.prod.js"></script>
    <script src="https://aframe.io/releases/1.2.0/aframe.min.js"></script>
    <script src="https://cdn.jsdelivr.net/gh/hiukim/mind-ar-js@1.1.4/dist/mindar-face-aframe.prod.js"></script>
    <script>
      document.addEventListener("DOMContentLoaded", function() {
        const list = ["glasses1", "glasses2"];
        const visibles = [true, false];
        const setVisible = (button, entities, visible) => {
          if (visible) {
            button.classList.add("selected");
          } else {
            button.classList.remove("selected");
          }
          entities.forEach((entity) => {
            entity.setAttribute("visible", visible);
          });
        };
        list.forEach((item, index) => {
          const button = document.querySelector("#" + item);
          const entities = document.querySelectorAll("." + item + "-entity");
          setVisible(button, entities, visibles[index]);
          button.addEventListener('click', () => {
            visibles[index] = !visibles[index];
            setVisible(button, entities, visibles[index]);
          });
        });
      });
    </script>
    <style>
      body {margin: 0;}
      .example-container {overflow: hidden; position: absolute; width: 100%; height: 100%;}
      .options-panel {position: fixed; left: 0; top: 0; z-index: 2;}
      .options-panel img {border: solid 2px; width: 50px; height: 50px; object-fit: cover;
        cursor: pointer;}
      .options-panel img.selected {border-color: green;}
    </style>
  </head>

  <body>
    <div class="example-container">
      <div class="options-panel">
        
```

```

    
  </div>
  <a-scene mindar-face embedded color-space="sRGB" renderer="colorManagement: true, physicallyCorrectLights" vr-
mode-ui="enabled: false" device-orientation-permission-ui="enabled: false">
    <a-assets>
      <a-asset-item id="headModel" src="https://cdn.jsdelivr.net/gh/hiukim/mind-ar-js@1.1.4/examples/face-
tracking/assets/sparkar/headOccluder.glb"></a-asset-item>
      <a-asset-item id="glassesModel" src="./objetos/mask1.obj"></a-asset-item>
      <a-asset-item id="glassesModel2" src="./objetos/mask2.obj"></a-asset-item>
    </a-assets>
    <a-camera position="0 0 0" active="false" look-controls-enabled="false" rotation-reader
arjs-look-controls="smoothingFactor: 0.05"></a-camera>
    <a-entity mindar-face-target="anchorIndex: 168">
      <a-gltf-model mindar-face-occluder position="0 -0.3 0.15" rotation="0 0 0"
scale="0.065 0.065 0.065" src="#headModel"></a-gltf-model>
    </a-entity>
    <a-entity mindar-face-target="anchorIndex: 168">
      <a-obj-model rotation="-90 -0 0" position="0 -0.45 0"
scale="0.1 0.1 0.1" src="#glassesModel" class="glasses1-entity" visible="false"></a-obj-model>
    </a-entity>
    <a-entity mindar-face-target="anchorIndex: 168">
      <a-obj-model rotation="-90 0 0" position="0 -1 0"
scale="0.06 0.06 0.06" src="#glassesModel2" class="glasses2-entity" visible="false"></a-obj-model>
    </a-entity>
  </a-scene>
</div>
</body>
</html>

```



Atividade 9.2 Crie uma página de RA baseada em localização para inserir um objeto no ambiente.

Link: <https://michelycastro.github.io/ra9/Atividade92>

Código:

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, user-scalable=no, minimum-scale=1.0, maximum-scale=1.0">
  <script src="https://aframe.io/releases/1.3.0/aframe.min.js"></script>
  <script src="https://unpkg.com/aframe-look-at-component@1.0.0/dist/aframe-look-at-component.min.js"></script>
  <script src="https://raw.githubusercontent.com/AR-js-org/AR.js/master/aframe/build/aframe-ar-nft.js"></script>
</head>

<body style="margin: 0px; overflow: hidden;">
  <a-scene vr-mode-ui="enabled: false" renderer="logarithmicDepthBuffer: true;" embedded arjs="sourceType: webcam;
  debugUIEnabled: false;">
    <a-assets>
      <a-asset-item id="modelo" src="./objetos/carro/scene.glTF"></a-asset-item>
    </a-assets>

    <a-entity look-at="[gps-camera]"
      gps-entity-place="latitude: -25.462842340617176; longitude: -49.295332853746054;"
      <a-entity rotation="0 0 0" scale="0.6 0.6 0.6" position="0 0 0">
        <a-gltf-model src="#modelo"></a-gltf-model>
      </a-entity>
    </a-entity>

    <a-camera gps-camera rotation-reader active="false" position="0 0 0" look-controls-enabled="false"></a-camera>
    <a-light type="ambient" color="white" intensity="2"></a-light>
    <a-light type="directional" color="white" intensity="1.5" position="-1 1 1"></a-light>
    <a-light type="directional" color="white" intensity="1.5" position="1 1 1"></a-light>
  </a-scene>
</body>
</html>
```



Atividade 9.3

Crie uma página de RA com pelo menos 4 objetos 3D mostrados em seus respectivos marcadores.

Link: <https://michelycastro.github.io/ra9/Atividade93>

Código:

```
<!DOCTYPE html>
<html>

<head>
  <meta http-equiv="X-UA-Compatible" content="IE=edge" />
  <meta charset="utf-8" />
  <meta name="viewport" content="width=device-width, user-scalable=no, minimum-
scale=1.0, maximum-scale=1.0">
  <script src="https://aframe.io/releases/1.2.0/aframe.min.js"></script>
  <script src="https://jeromeetienne.github.io/AR.js/aframe/build/aframe-
ar.js"></script>
  <script src="https://cdn.jsdelivr.net/gh/donmccurdy/aframe-extras@v6.1.1/dist/aframe-
extras.min.js"></script>
</head>

<body style="margin: 0px; overflow: hidden;">
  <a-scene embedded renderer="logarithmicDepthBuffer: true;" arjs='sourceType: webcam;
trackingMethod: best;
  detectionMode: mono_and_matrix; matrixCodeType: 3x3; debugUIEnabled: false;'>
    <a-assets>
      <a-asset-item id="modelo1" src="objetos/boneco/scene.gltf"></a-asset-item>
      <a-asset-item id="modelo2" src="objetos/esfera/scene.gltf"></a-asset-item>
      <a-asset-item id="modelo3" src="objetos/espelho/scene.gltf"></a-asset-item>
      <a-asset-item id="modelo4" src="objetos/vaso/scene.gltf"></a-asset-item>
    </a-assets>

    <a-marker type="barcode" value="20">
      <a-entity scale="0.01 0.01 0.01" position="0 0.3 0.5">
        <a-gltf-model src="#modelo1"></a-gltf-model>
      </a-entity>
    </a-marker>

    <a-marker type="barcode" value="17">
      <a-entity scale="1 1 1" position="0 0.3 0.5">
        <a-gltf-model src="#modelo2"></a-gltf-model>
      </a-entity>
    </a-marker>

    <a-marker type="barcode" value="10">
      <a-entity scale="2 2 2" position="0 0.3 0.5">
        <a-gltf-model src="#modelo4"></a-gltf-model>
      </a-entity>
    </a-marker>

    <a-marker preset="hiro">
      <a-entity scale="0.8 0.8 0.8" position="0 0 0.8">
        <a-gltf-model src="#modelo3"></a-gltf-model>
      </a-entity>
    </a-marker>
  </a-scene>
</body>
```

```

</a-marker>

<a-entity camera></a-entity>
<a-light type="ambient" color="white" intensity="1"></a-light>
<a-light type="directional" color="white" intensity="1.5" position="-1 1 1"></a-
light>
  <a-light type="directional" color="white" intensity="1.5" position="1 1 1"></a-
light>
</a-scene>
</body>

</html>

```

