



Modern Topics in IT – IT4020

4th Year – 1st Semester

Assignment 03 – Report (Augmented Reality)

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Submitted to
Sri Lanka Institute of Information Technology

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Contribution

IT Number	Student Name	Contribution
IT19015422	Perera B.A.A.W.S	<ul style="list-style-type: none"> • Create a simple augmented reality app. • Make an own marker. • Download the source and texture files to create own artifact. • Use augmented reality principles to display 3D artifacts. • Make an individual application and the report.
IT19015040	Rasuni Wageesha H.A	<ul style="list-style-type: none"> • Create a simple augmented reality app. • Make an own marker. • Download the source and texture files to create own artifact. • Use augmented reality principles to display 3D artifacts. • Make an individual application and the report.
IT18077698	Thennakoon T.M.B.C.K	<ul style="list-style-type: none"> • Create a simple augmented reality app. • Make an own marker. • Download the source and texture files to create own artifact. • Use augmented reality principles to display 3D artifacts. • Make an individual application and the report.
IT19011608	Senanayaka S.A.M.A.B.M	<ul style="list-style-type: none"> • Create a simple augmented reality app. • Make an own marker. • Download the source and texture files to create own artifact. • Use augmented reality principles to display 3D artifacts. • Make an individual application and the report.

1. Screenshots of Individual Applications & Final application

- IT19015422

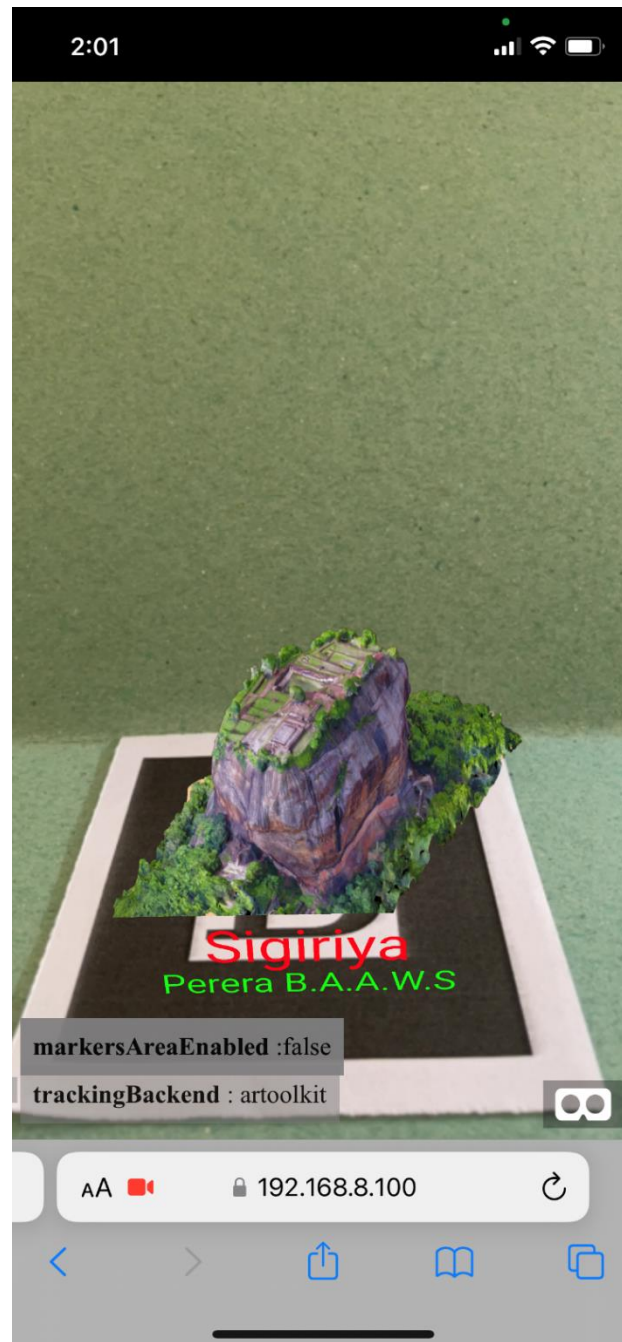


Figure 1.1: Screenshots of Individual Application (Sigiriya)

- IT19015040

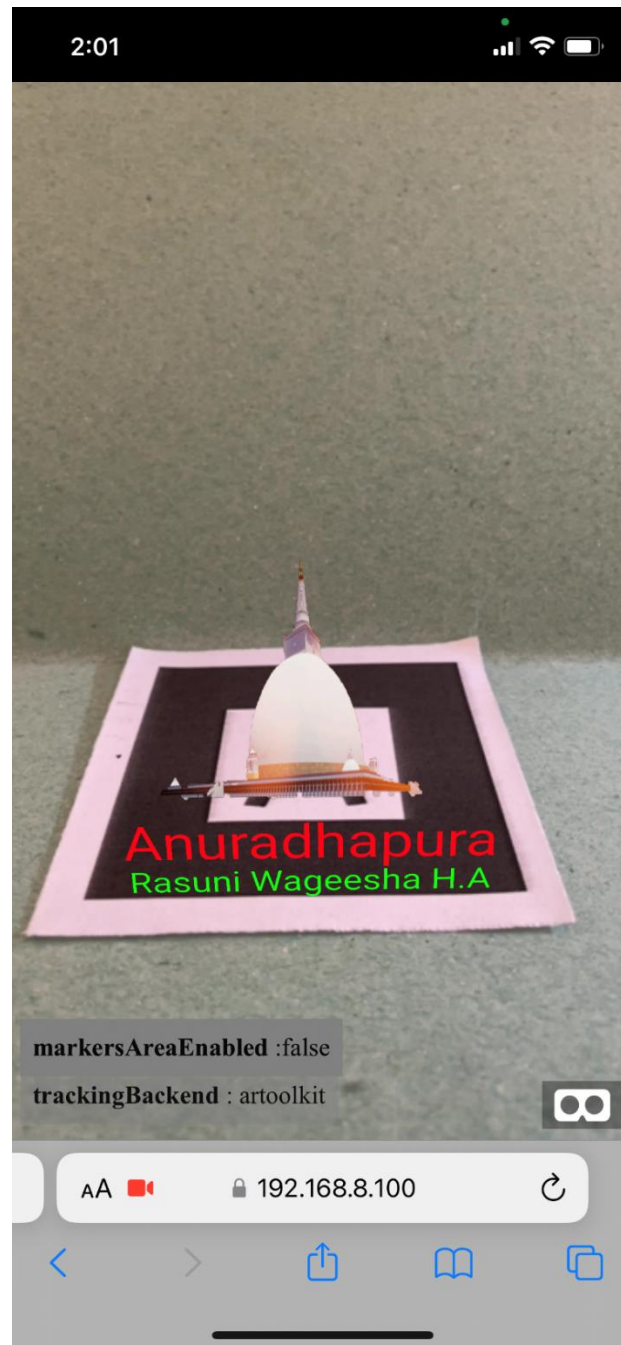


Figure 1.2: Screenshots of Individual Application (Anuradhapura)

- IT18077698



Figure 1.3: Screenshots of Individual Application (Temple of the Tooth)

- IT19011608

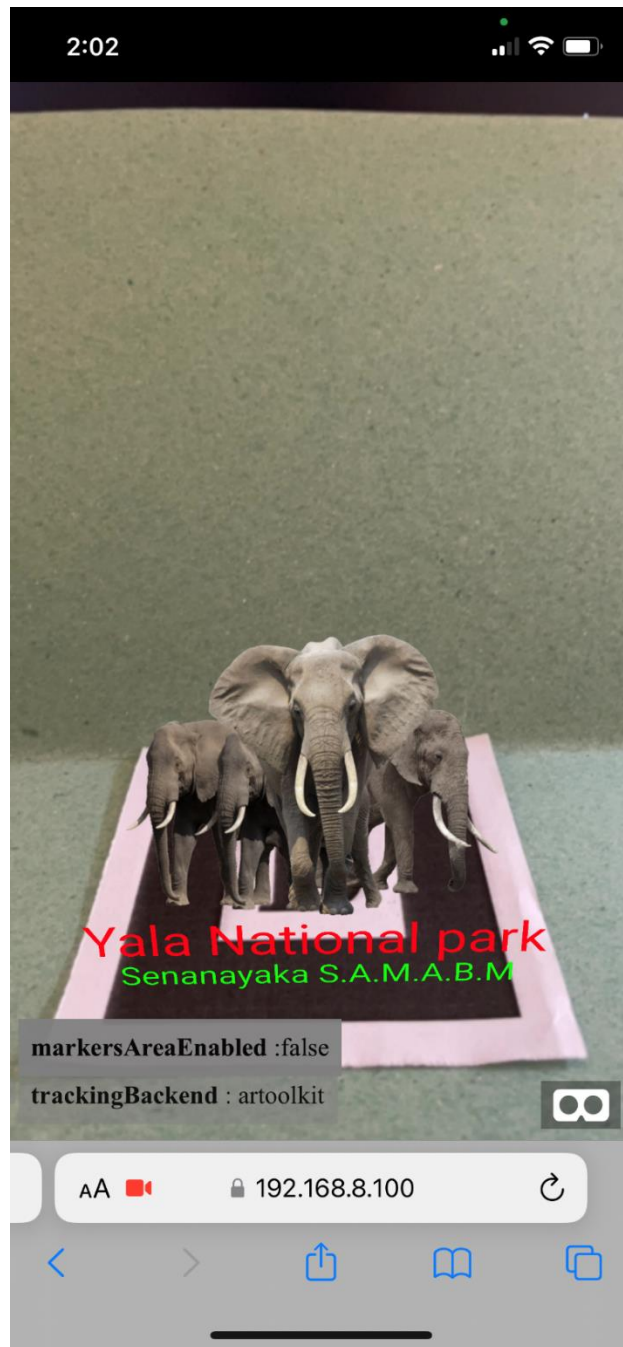


Figure 1.4: Screenshots of Individual Application (Yala National Park)

Final Application



Figure 1.5: Final Application

2. Codes of Individual Applications & Final Application

• IT19015422

```
< IT18077698.html < IT19011608.html < IT19015040.html < IT19015422.html X < index.html
D: > A-SLIIT > YEAR 4 SEM 1 > Modern Topics in IT > Assignments > Assignment 3 > augument_reality_mtiti > app > < IT19015422.html > html > body > a-scene > a-marker > a-text
1 <!DOCTYPE html>
2 <html>
3
4 <head>
5 <!-- include A-Frame obviously -->
6 <script src="https://aframe.io/releases/0.6.0/aframe.min.js"></script>
7 <!-- include ar.js for A-Frame -->
8 <script src="https://jeromeetienne.github.io/AR.js/aframe/build/aframe-ar.js"></script>
9 </head>
10
11 <body style='margin : 0px; overflow: hidden;'>
12
13 <a-scene embedded arjs>
14
15 <!--IT19015422-->
16
17 <a-marker type='pattern' url='patterns/pattern-LetterB.patt'>
18 <a-image id='sigiriya' src='models/sigiriya.gif' position='0 0 -0.5' rotation='0 0 0' scale='1.2 1.2 1.2'></a-image>
19 <a-text align='center' value='Sigiriya' rotation='0 0 0' position='0 -0.4 -0.2' scale='0.8 0.8 0.8' color='red'></a-text>
20 <a-text align='center' value='Perera B.A.A.W.S' rotation='0 0 0' position='0 -0.55 -0.2' scale='0.5 0.5 0.5' color='#00FF00'></a-text>
21 </a-marker>
22
23 <a-entity camera></a-entity>
24
25 </a-scene>
26
27 </body>
28
29 </html>
```

Figure 2.1: Individual Application (IT19015422)

• IT19015040

```
< IT18077698.html < IT19011608.html < IT19015040.html X < IT19015422.html < index.html X
D: > A-SLIIT > YEAR 4 SEM 1 > Modern Topics in IT > Assignments > Assignment 3 > augument_reality_mtiti > app > < IT19015040.html > ...
1 <!DOCTYPE html>
2 <html>
3
4 <head>
5 <!-- include A-Frame obviously -->
6 <script src="https://aframe.io/releases/0.6.0/aframe.min.js"></script>
7 <!-- include ar.js for A-Frame -->
8 <script src="https://jeromeetienne.github.io/AR.js/aframe/build/aframe-ar.js"></script>
9 </head>
10
11 <body style='margin : 0px; overflow: hidden;'>
12
13 <a-scene embedded arjs>
14
15 <!--IT19015040-->
16
17 <a-marker type='pattern' url='patterns/pattern-LetterA.patt'>
18 <a-image id='chaithya' src='models/chaithya.gif' position='0 0 -0.5' rotation='0 0 0' scale='1.2 1.2 1.2'></a-image>
19 <a-text align='center' value='Anuradhapura' rotation='0 0 0' position='0 -0.4 -0.2' scale='0.8 0.8 0.8' color='red'></a-text>
20 <a-text align='center' value='Rasuni Wageesha H.A' rotation='0 0 0' position='0 -0.55 -0.2' scale='0.5 0.5 0.5' color='#00FF00'></a-text>
21 </a-marker>
22
23 <a-entity camera></a-entity>
24
25 </a-scene>
26
27 </body>
28
29 </html>
30
31
```

Figure 2.2: Individual Application (IT19015040)

• IT18077698

```

<> IT18077698.html X <> IT19011608.html <> IT19015040.html <> IT19015422.html <> index.html
D: > A-SUIT > YEAR 4 SEM 1 > Modern Topics in IT > Assignments > Assignment 3 > augument_reality_mtit > app > <> IT18077698.html > html > body > a-scene
1 <!DOCTYPE html>
2 <html>
3
4 <head>
5 <!-- include A-Frame obviously -->
6 <script src="https://aframe.io/releases/0.6.0/aframe.min.js"></script>
7 <!-- include ar.js for A-Frame -->
8 <script src="https://jeromeetienne.github.io/AR.js/aframe/build/aframe-ar.js"></script>
9 </head>
10
11 <body style='margin : 0px; overflow: hidden;'>
12
13 <a-scene embedded arjs>
14
15 <!--IT18077698-->
16
17 <a-marker type='pattern' url="patterns/pattern-LetterC.patt">
18 <a-image id="temple" src="models/temple of the tooth relic.gif" position="0 0 -0.5" rotation="0 0 0" scale="1.2 1.2 1.2"></a-image>
19 <a-text align="center" value="Temple of the Tooth" rotation="0 0 0" position="0 -0.4 -0.2" scale="0.8 0.8 0.8" color="red"></a-text>
20 <a-text align="center" value="Thennakoon T.M.B.C.K" rotation="0 0 0" position="0 -0.55 -0.2" scale="0.5 0.5 0.5" color="#00FF00"></a-text>
21 </a-marker>
22
23 <a-entity camera></a-entity>
24
25 </a-scene>
26
27 </body>
28
29 </html>

```

Figure 2.3: Individual Application (IT18077698)

• IT19011608

```

<> IT18077698.html <> IT19011608.html X <> IT19015040.html <> IT19015422.html <> index.html
D: > A-SUIT > YEAR 4 SEM 1 > Modern Topics in IT > Assignments > Assignment 3 > augument_reality_mtit > app > <> IT19011608.html > html
1 <!DOCTYPE html>
2 <html>
3
4 <head>
5 <!-- include A-Frame obviously -->
6 <script src="https://aframe.io/releases/0.6.0/aframe.min.js"></script>
7 <!-- include ar.js for A-Frame -->
8 <script src="https://jeromeetienne.github.io/AR.js/aframe/build/aframe-ar.js"></script>
9 </head>
10
11 <body style='margin : 0px; overflow: hidden;'>
12
13 <a-scene embedded arjs>
14
15 <!--IT19011608-->
16
17 <a-marker type='pattern' url="patterns/pattern-LetterD.patt">
18 <a-image id="elephant" src="models/elephant.png" position="0 0 -0.5" rotation="0 0 0" scale="1.2 1.2 1.2"></a-image>
19 <a-text align="center" value="Yala National park" rotation="0 0 0" position="0 -0.4 -0.2" scale="0.8 0.8 0.8" color="red"></a-text>
20 <a-text align="center" value="Senanayaka S.A.M.A.B.M" rotation="0 0 0" position="0 -0.55 -0.2" scale="0.5 0.5 0.5" color="#00FF00"></a-text>
21 </a-marker>
22
23 <a-entity camera></a-entity>
24
25 </a-scene>
26
27 </body>
28
29 </html>

```

Figure 2.4: Individual Application (IT19011608)

Final Application

```
<> IT18077698.html <> IT19011608.html <> IT19015040.html <> IT19015422.html <> index.html X
D: > A-SLIIT > YEAR 4 SEM 1 > Modern Topics in IT > Assignments > Assignment 3 > augument_reality_mtit > app > <> index.html > html > body > a-scene
1  <!DOCTYPE html>
2  <html>
3
4  <head>
5    <!-- include A-Frame obviously -->
6    <script src="https://aframe.io/releases/0.6.0/aframe.min.js"></script>
7    <!-- include ar.js for A-Frame -->
8    <script src="https://jeromeetienne.github.io/AR.js/aframe/build/aframe-ar.js"></script>
9  </head>
10
11  <body style='margin : 0px; overflow: hidden;'>
12
13    <a-scene embedded arjs>
14
15      <!--IT18077698-->
16
17      <a-marker type='pattern' url='patterns/pattern-LetterC.patt'>
18        <a-image id='temple' src='models/temple of the tooth relic.gif' position='0 0 -0.5' rotation='0 0 0' scale='1.2 1.2 1.2'></a-image>
19        <a-text align='center' value='Temple of the Tooth' rotation='0 0 0' position='0 -0.4 -0.2' scale='0.8 0.8 0.8' color='red'></a-text>
20        <a-text align='center' value='Thennakoon T.M.B.C.K' rotation='0 0 0' position='0 -0.55 -0.2' scale='0.5 0.5 0.5' color='#ffc300'></a-text>
21      </a-marker>
22
23      <!--IT19015040-->
24
25      <a-marker type='pattern' url='patterns/pattern-LetterA.patt'>
26        <a-image id='chaitiya' src='models/chaitiya.gif' position='0 0 -0.5' rotation='0 0 0' scale='1.2 1.2 1.2'></a-image>
27        <a-text align='center' value='Anuradhapura' rotation='0 0 0' position='0 -0.4 -0.2' scale='0.8 0.8 0.8' color='red'></a-text>
28        <a-text align='center' value='Rasuni Wageesha H.A' rotation='0 0 0' position='0 -0.55 -0.2' scale='0.5 0.5 0.5' color='#ffc300'></a-text>
29      </a-marker>
30    </a-scene>
31  </body>
32 </html>
```

Figure 2.5: Final application code part 1

```
<> IT18077698.html <> IT19011608.html <> IT19015040.html <> IT19015422.html <> index.html X
D: > A-SLIIT > YEAR 4 SEM 1 > Modern Topics in IT > Assignments > Assignment 3 > augument_reality_mtit > app > <> index.html > ...
30
31    <!--IT19011608-->
32
33    <a-marker type='pattern' url='patterns/pattern-LetterD.patt'>
34      <a-image id='elephant' src='models/elephant.png' position='0 0 -0.5' rotation='0 0 0' scale='1.2 1.2 1.2'></a-image>
35      <a-text align='center' value='Yala National park' rotation='0 0 0' position='0 -0.4 -0.2' scale='0.8 0.8 0.8' color='red'></a-text>
36      <a-text align='center' value='Senanayaka S.A.M.A.B.M' rotation='0 0 0' position='0 -0.55 -0.2' scale='0.5 0.5 0.5' color='#ffc300'></a-text>
37    </a-marker>
38
39    <!--IT19015422-->
40
41    <a-marker type='pattern' url='patterns/pattern-LetterB.patt'>
42      <a-image id='sigiriya' src='models/sigiriya.gif' position='0 0 -0.5' rotation='0 0 0' scale='1.2 1.2 1.2'></a-image>
43      <a-text align='center' value='Sigiriya' rotation='0 0 0' position='0 -0.4 -0.2' scale='0.8 0.8 0.8' color='red'></a-text>
44      <a-text align='center' value='Perera B.A.A.W.S' rotation='0 0 0' position='0 -0.55 -0.2' scale='0.5 0.5 0.5' color='#ffc300'></a-text>
45    </a-marker>
46
47    <a-entity camera></a-entity>
48
49  </a-scene>
50
51  </body>
52
53 </html>
54
55
```

Figure 2.6: Final application code part 2

3. Small write-up about the real-life problem

Sri Lanka is a popular tourist destination because it offers a diverse range of wildlife, a rich cultural legacy, and breathtaking scenery. Sri Lanka attracts thousands of tourists each year. There are several wildlife parks in the area. Yala National Park is one of them. Tourists like watching wild animals roaming freely in their natural habitat. Sri Lanka has a 2,500-year-old history. Anuradhapura, Polonnaruwa, Sigiriya, Kandy, and other ancient cities have ruins. Tourists come to view beautiful sculptures, paintings, and the ruins of historic buildings and monuments.

During the pandemic situation, the tourism industry had fallen down not only Sri Lanka that happened to the whole world. But now it's going stable like previous years. In this assignment we focus to show the most amazing places in Sri Lanka that get more attraction among the tourists.

There are a lot of photographs of tourism places on the internet, but there is a lack in the inspections. To overcome this problem, we may develop some scanning markers using 3D representations of tourism places and Augmented Reality technologies. Anyone who interest about those kinds of places may just scan the marker to get a 3D image of the tourism places in a realistic environment, which will help to get attraction from the tourists.