

ID NUMBER:2000031715

SECTION: NS05

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**Creating a Simple Marker Based Augmented Reality Android Application
using Unity V2019 software**

Aim:

To create a marker based augmented reality android application. To create a marker based augmented reality android application

System and Software Requirements:

Unity 2019.2 V, Android Studio, Oracle JDK, Oracle JRE, Android device.

Procedure:

(On your own don't copy from manual)

- Create a new project from unity hub with 3D template.
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- Go to player setting - XR settings and import Vuforia augmented reality support options by checking the box as shown in the below picture
- now come back to GUI and import the AR camera from game object - Vuforia engine- AR camera and delete main camera as shown in the below picture
- Now go to Vuforia development portal website and login in to Vuforia account by registering in Vuforia website and create a development key by selecting get development key option and give a database name as shown in the below picture
- Go to unity editor -Select AR camera - Select Vuforia configurations in inspector panel – go to add license option - copy and paste license key from Vuforia website.
- To create Image target database go to Vuforia website - Target manager - add database – give name to database -select the database which is created - select add target - choose the image file after scanning - give grid width 7 - select add. Then download the database and import into unity editor by double clicking the

downloaded database.

- In Hierarchy panel drag and drop target image to AR camera as shown in below picture.

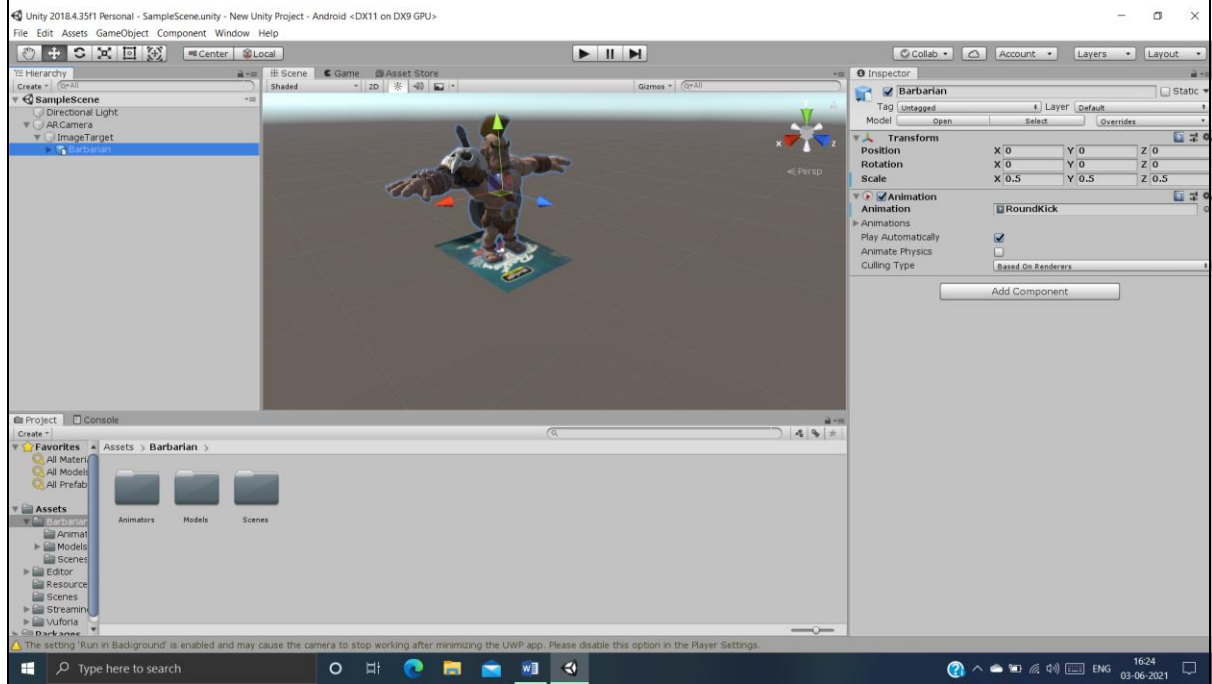
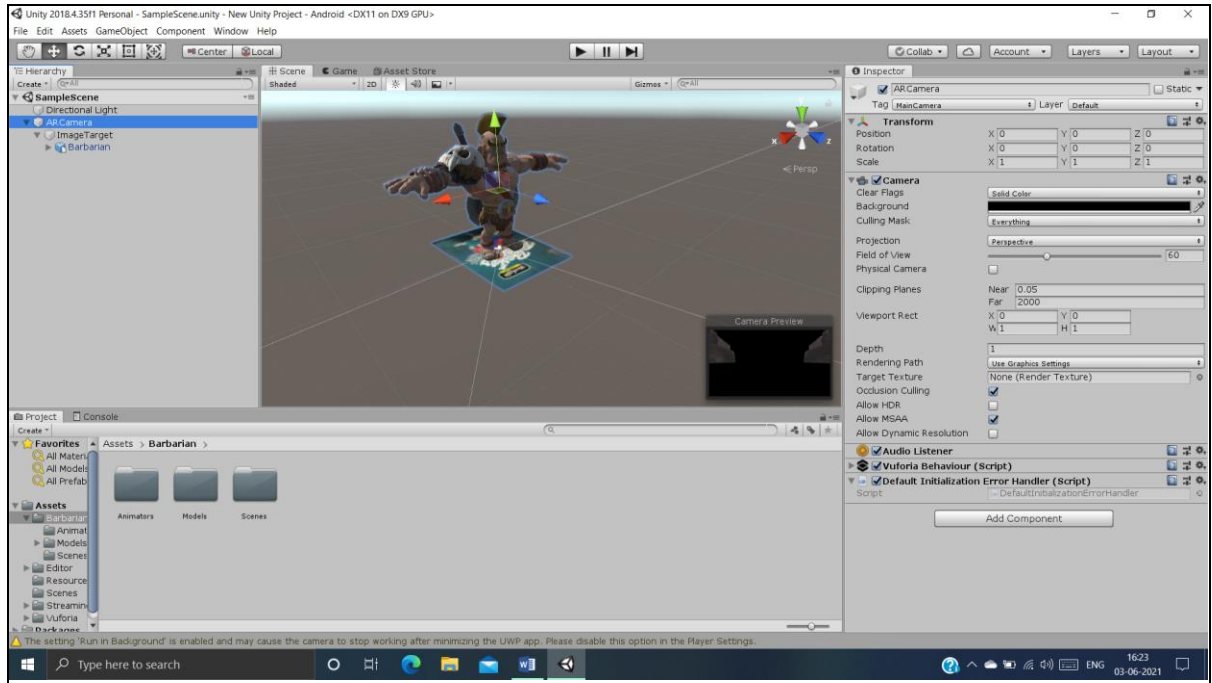
- Go to Assest store - search for 3D objects (Barbarian Warrior) - download and import in to unity editor.

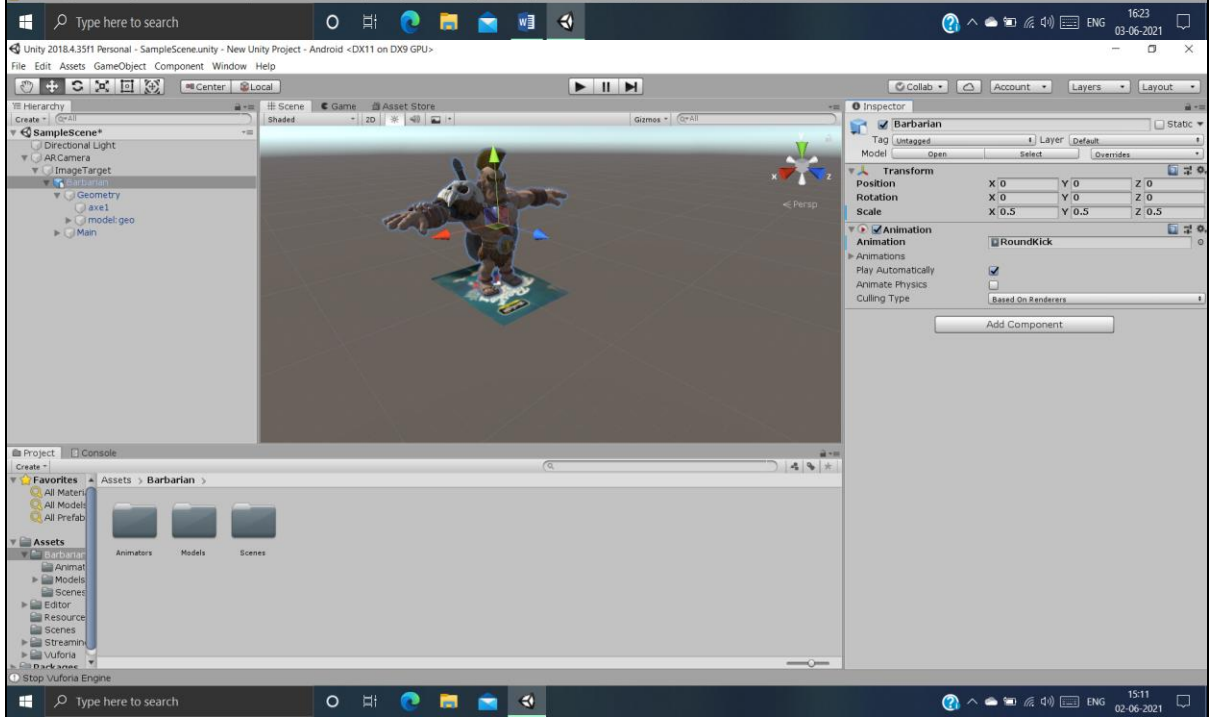
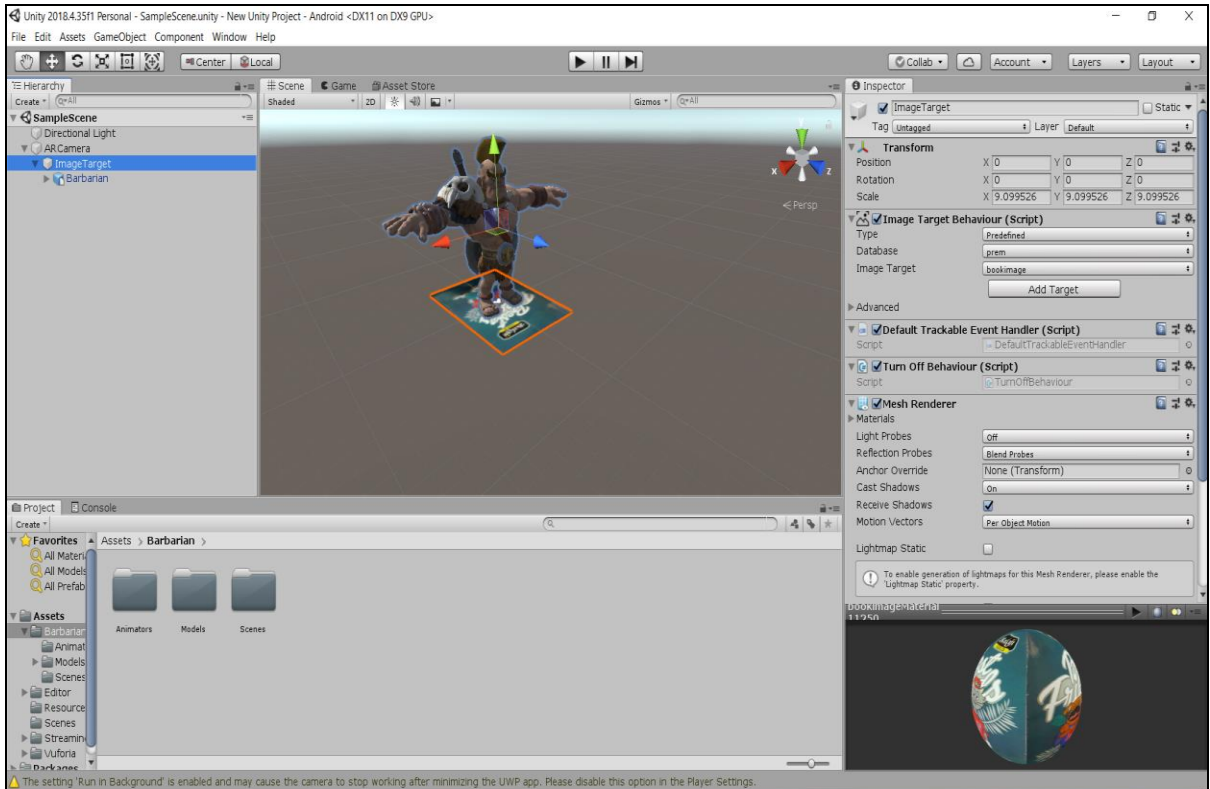
- In assets window go to barbarian folder- models- drag and drop barbarian model in to Gurion to image target. Give location of barbarian to (x,y,z) to (0,0,0)

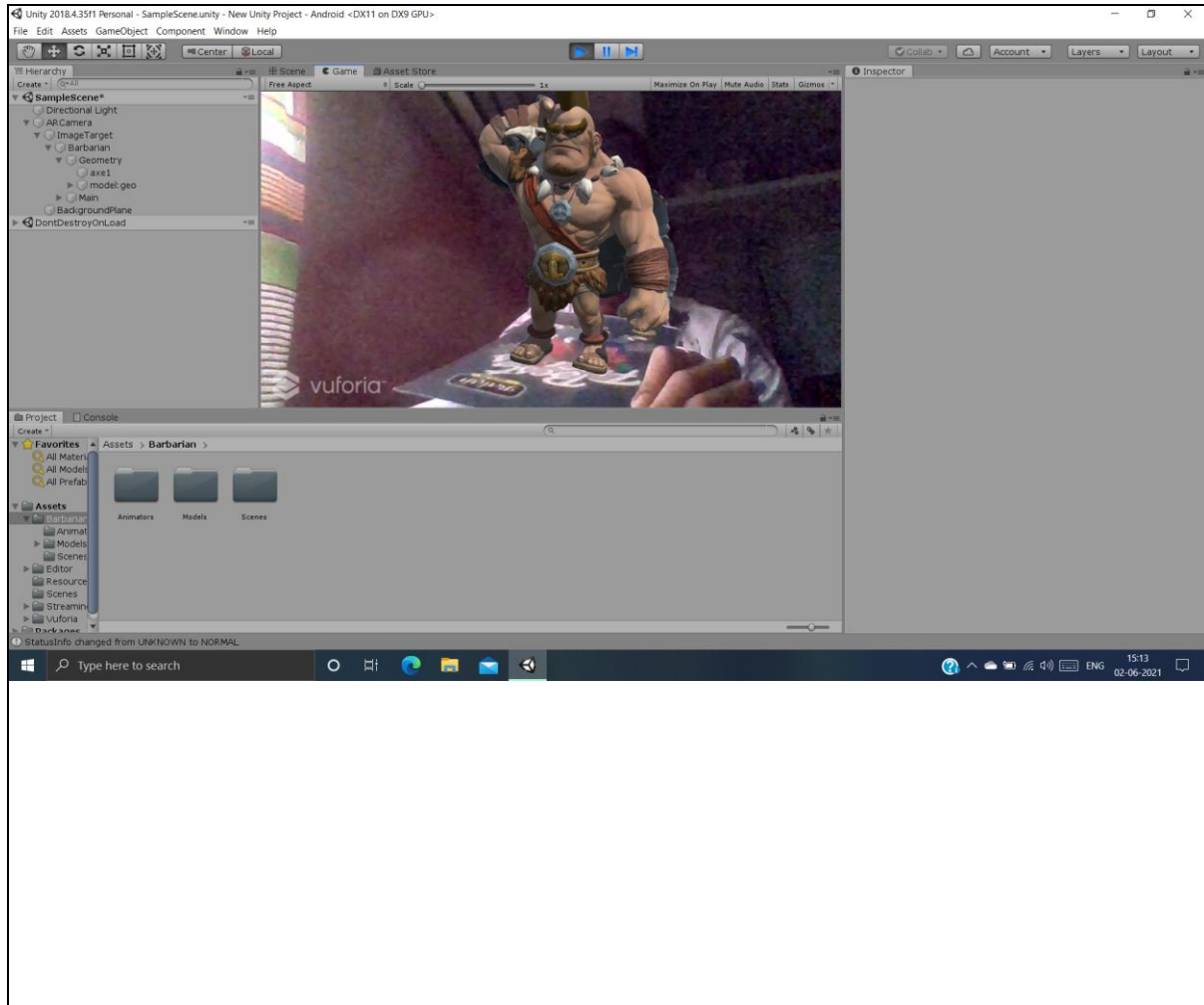
- select play to open webcam, now when the image target is shown to webcam AR effect will appear on the image target.

- To create android application go to file - build settings - add open scenes - player settings - give product name - add production by drag and drop the icon from assest window go to Resolution and presentation options - default orientation option - select application orientation from auto rotation to landscape left (if required) as shown in below pictures

Results (All screen shots need to paste here):







Conclusions:

Hence a Simple Marker Based Augmented Reality Android Application using Unity V2019 software is created

