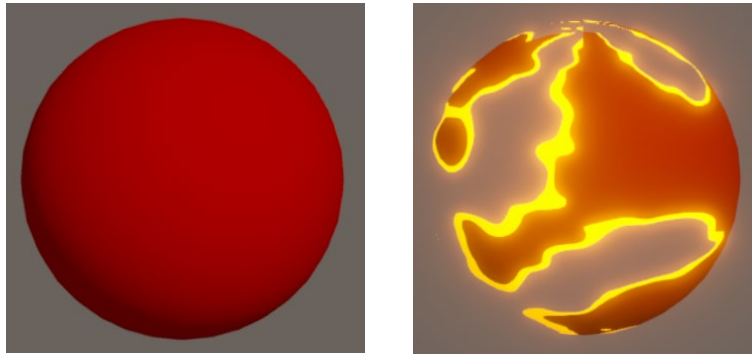


CS 5602 – Game Design and Development
Fall 2024 – Unity Assignment 5 – Shader Graph

Using Unity's Shader Graph system in a 3D URP project, create an unlit dissolve shader with transparency and HDR colors enabled. Install the post-processing package and apply bloom.

Your scene should contain only 1 sphere, to which your shader should be applied; with bloom enabled, and the camera set to HDR mode, the image below shows the expected result. Some areas of the sphere have become transparent, while others are still opaque, and the boundary of these regions is glowing. This boundary region should be generated with a noise function.



Expose to the editor the following customization variables:

(a) a slider for float [0.0f, 1.0f] that controls the dissolve percentage, where 0.0f = full sphere visible (no glowing edge) and 1.0f = sphere entirely transparent (no glowing edge), and other values having a noise-based edge visible at the opaque-transparent region boundary.

(b) a color picker to choose the edge color.

Create a C# script that starts with the sphere completely visible. Access the dissolve percentage property of the material to make the sphere completely transparent in a user-controlled amount of time. Expose this time variable to the inspector and set it to 1 second default. Once the sphere is completely transparent, destroy it.

Zip your Unity project folder and upload the file to any free online storage system. Provide the link in the LMS assignment submission form, and ensure proper read/download permissions. Invalid links, invalid download permission, corrupt zip files, or any other issue will result in 0 marks being assigned.

Note the following .gitignore entries; to limit the zip file's size, do not add the following files and directories to your zip file.

```
[L]ibrary/  
[T]emp/  
[Oo]bj/  
[Bb]uild/  
[Bb]uilds/  
[Ll]ogs/  
[Uu]ser[Ss]ettings/  
  
# MemoryCaptures can get excessive in size, and may contain sensitive data  
[Mm]emoryCaptures/  
  
# Recordings can get excessive in size  
[Rr]ecordings/
```

```
# Uncomment this line if you wish to ignore the asset store tools plugin
# /[Aa]ssets/AssetStoreTools*

# Autogenerated JetBrains Rider plugin
/[Aa]ssets/Plugins/Editor/JetBrains*

# Visual Studio cache directory
.vs/

# Gradle cache directory
.gradle/

# Autogenerated VS/MD/Consulo solution and project files
ExportedObj/
.consulo/
*.csproj
*.unityproj
*.sln
*.suo
*.tmp
*.user
*.userprefs
*.pidb
*.booproj
*.svd
*.pdb
*.mdb
*.opendb
*.VC.db

# Builds
*.apk
*.aab
*.unitypackage
*.app

# Crashlytics generated file
crashlytics-build.properties

# Packed Addressables
/[Aa]ssets/[Aa]ddressable[Aa]ssets[Dd]ata/*/*.bin*

# Temporary auto-generated Android Assets
/[Aa]ssets/[Ss]treamingAssets/aa.meta
/[Aa]ssets/[Ss]treamingAssets/aa/*

# Blender backups
*.blend1

# vscode editorconfig
.editorconfig
```