// MinTuts/Procedural Terrain.shader

```
y = float3(1, 1, 1);
} else if (p < 0.05) {
    r = -(p - 0.1);
    g = r;

y = float3(1, 1, 1);
}
return float4(y * float3(r, g, b), 1);</pre>
```

The goal of this <u>commit</u> to <u>create</u> a small <u>shoreline</u> <u>between</u> the <u>water and</u> <u>grass</u>

To do that we first need to <u>make sure</u> our <u>previous</u> **if** <u>didn't match</u>

If it didn't, we check if...

p is <u>less than</u> where we want the <u>top</u> of our <u>shoreline</u> to be

If it is, we subtract 0.1 from **p**

This will <u>result</u> in a <u>negative number</u> which grows <u>larger</u> as **p** <u>approaches 0</u>

We then <u>flip</u> the <u>sign</u> of our <u>resulting value</u>

The <u>result</u> of this <u>flip</u> is <u>larger positive numbers</u> the <u>closer</u> **p** gets <u>to 0.01</u> - and <u>smaller positive</u> <u>numbers</u> as **p** <u>approaches 0.05</u>

This gives us a <u>gradient</u> that goes in the <u>opposite direction</u> from the <u>grass gradient</u>: <u>light</u> to <u>dark</u> as **p** increases

We <u>assign</u> the <u>result</u> of these calculations <u>to</u> the <u>red</u> channel (**r**)

We then <u>assign</u> **r** to **g** (this is what <u>gives</u> us the <u>brown</u> color)

As before, we max y out for brightness

Playtime(UNITY, TERRAIN)

```
    Open(PROJECT, UNITY);
    Click("Hierarchy Tab", Plane);
    Play(SliderValues & ToggleValues);
```