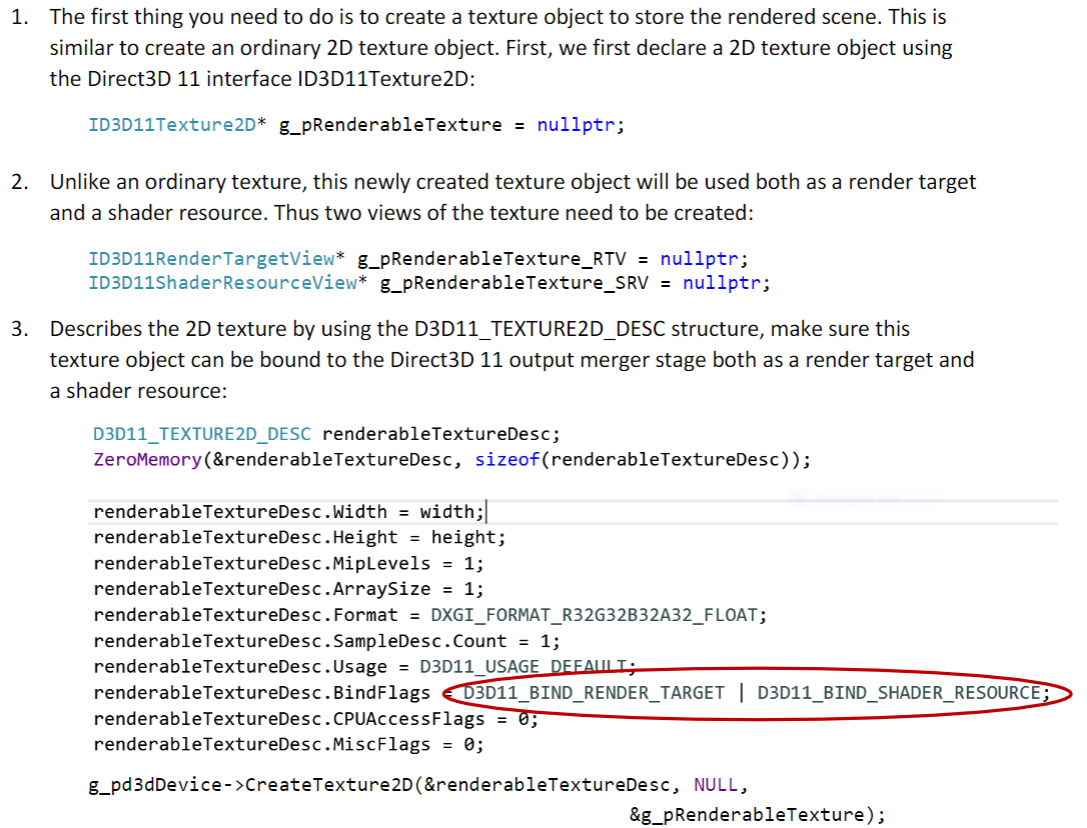
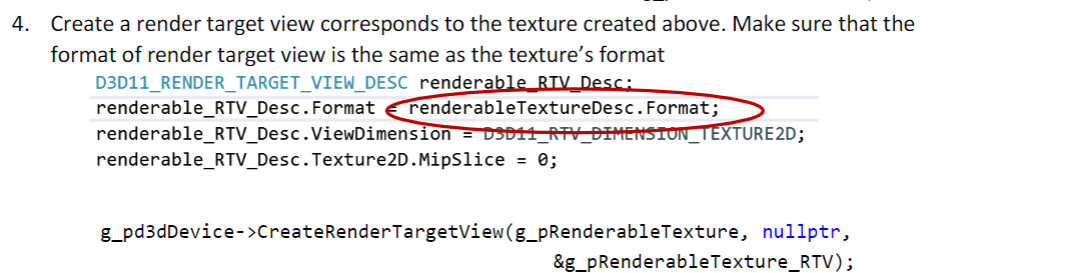
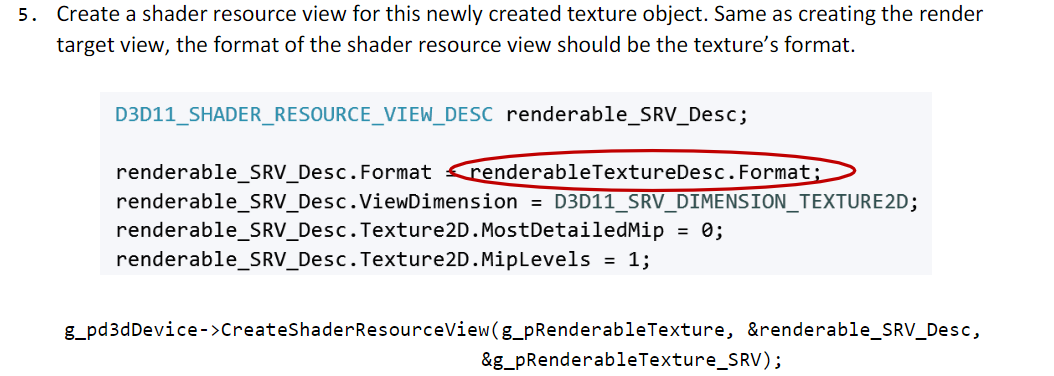
700106 / 700120 Lab Book

Week 9 – Lab I

**Exercise 1. Render to texture  
Question:**

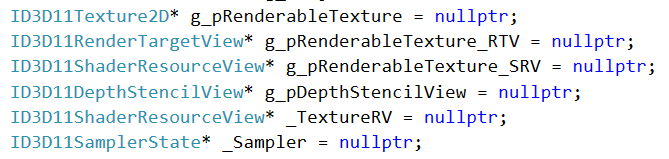
  
  


Text

Description automatically generated**Solution:**

1. As mentioned in the question follow the steps.

Firstly, add the variables that are required for the task, which is shown below.



Then, define the renderable texture.

Text

Description automatically generated

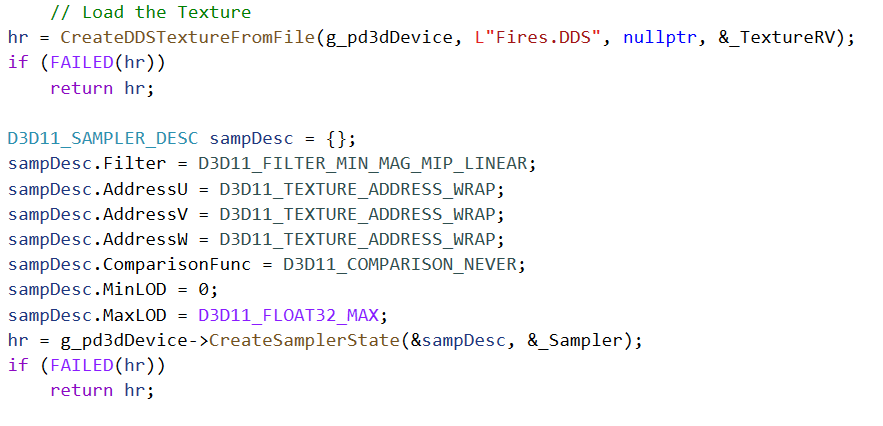
Add the render target view.  
Text

Description automatically generated

Next the Shader resource view.  
Text, application

Description automatically generated

Load the texture.



Finally, modify the render() as given below.

Text

Description automatically generated

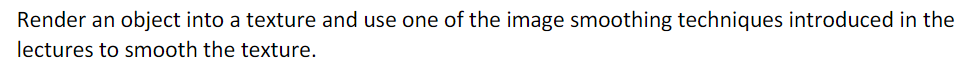
**Sample output:  
A picture containing orange

Description automatically generated**

**Reflection:** In this assignment, I got to know about the render to textures.

**Exercise 2: Texture smoothing.**

**Question:**



**Solution:**

1. Firstly, will be using same code as first assignment and the modification will be done on the pixel shader.

Use the smoothing techniques, which is given below.

Graphical user interface, text

Description automatically generated

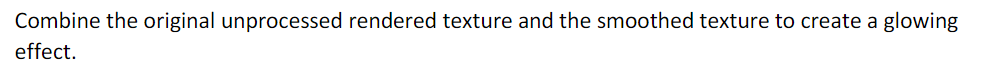
**Sample output:**Icon

Description automatically generated

**Reflection**: As in the previous exercise, here we are doing smoothing to the same cube using one of the smoothing technique which is given in the above screen shot.

**Exercise 3. Glowing Effect.**

**Question:**



**Solution:**

**1**. Firstly, will be using the second exercise code to achieve this and will be modifying the pixel shader, which is given below.

Graphical user interface, text, application

Description automatically generated

**Sample output:**  
Shape

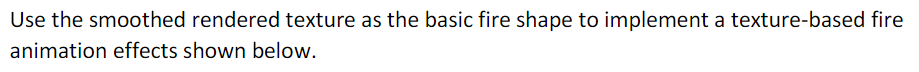
Description automatically generated

**Reflection:**

In this assignment got to know about making the objects glow by combining the smoothed object and original texture.

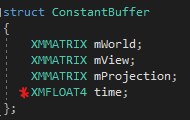
**Exercise 4. Object on fire animation**

**Question:**

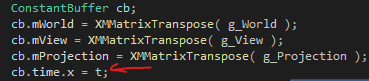
****

**Solution:**

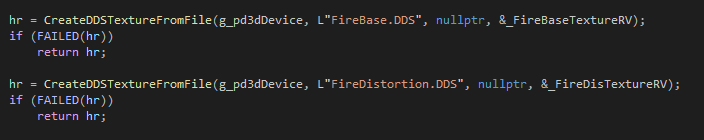
**1**. Firstly, will be passing the time in the shader through the constant buffer.

****

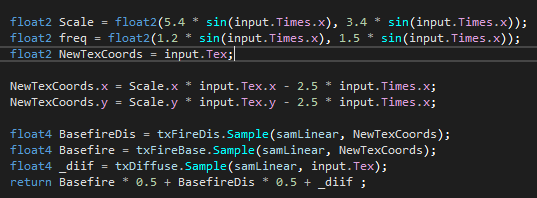
Passing the time.

****

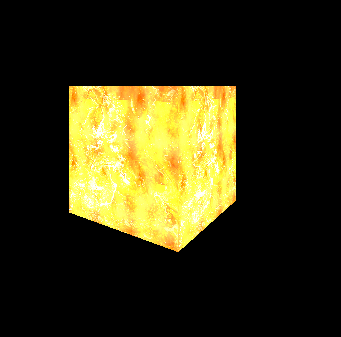
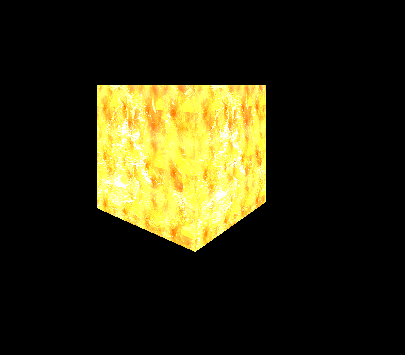
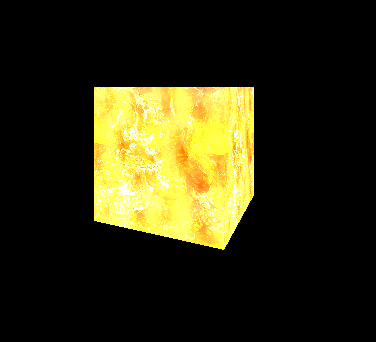
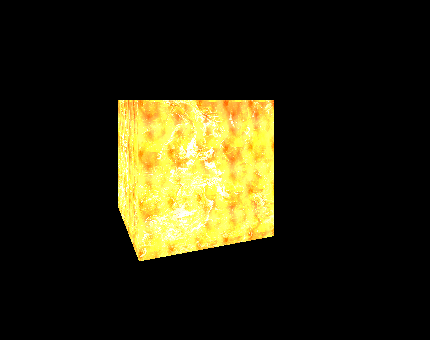
2. In order to animate like fire, you need to pass the Distortion and the base fire textures in the cpp file.

****

**3**. Finally, the modification will be in the pixel shader to animate like fire, which is given below.



**Sample output:**

****

**Reflection:**

In this exercise got an idea about the rendering the multiple textures into single and making fire animation.