Assignment 3 – Texture Mapping Detail Instruction

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Goal

◆ **Binding and passing the texture to shader.**

◆ **Modify the texture filtering & wrapping mode.**

◆ **Finish the code in main.cpp, vertex shader and fragment shader**

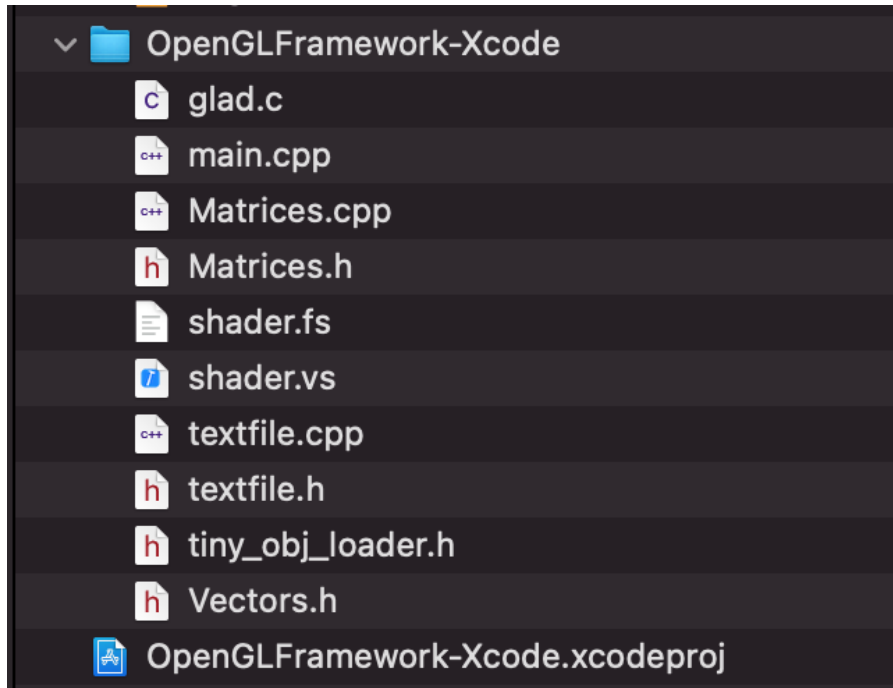# *Assignment 3*

- ◆ **Announce date: 2021/05/19**
- ◆ **Deadline: 2021/06/09 23:59 (UTC+8)**
- ◆ **Late work will be penalized by 20/week.**
- ◆ **Copy & paste others' code will get 0.**
- ◆ **Hand in your homework by FTP in the following format(-10 for penalty)**
  - ◆ **studentID_HW3.zip**
  - ◆ **studentID_HW3_Report.pdf**

In studentID_HW3.zip

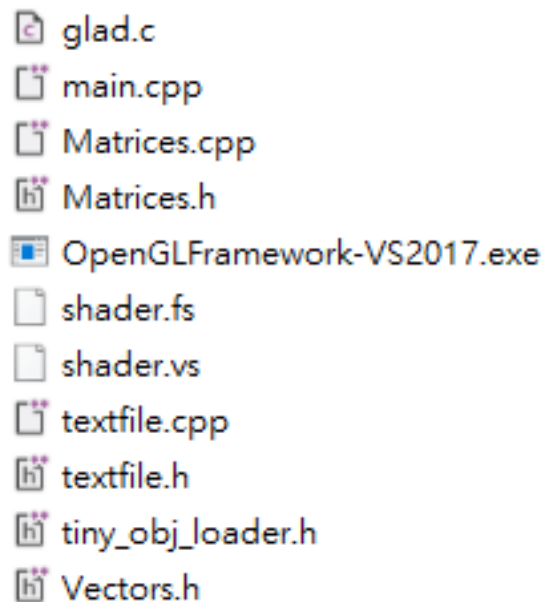◆ **Depend on your device**
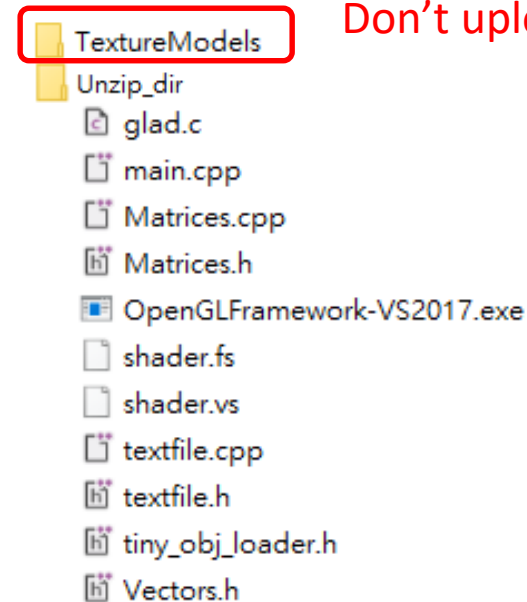
◆ **-10 for those upload "TextureModels"**

For Mac

In studentID_HW3.zip

◆ **Depend on your device**

◆ **-10 for those upload "x64" or "TextureModels"**

For Windows:
- glad.c
- main.cpp
- Matrices.cpp
- Matrices.h
- OpenGLFramework-VS2017.exe
- shader.fs
- shader.vs
- textfile.cpp
- textfile.h
- tiny_obj_loader.h
- Vectors.h

TextureModels — Don't upload!!!

- Unzip_dir
  - glad.c
  - main.cpp
  - Matrices.cpp
  - Matrices.h
  - OpenGLFramework-VS2017.exe
  - shader.fs
  - shader.vs
  - textfile.cpp
  - textfile.h
  - tiny_obj_loader.h
  - Vectors.h

For Windows   **Make Sure exe can run**

Key Mapping

◆ **Please follow the spec bellow, or you would not get the score of item.**

◆ **You must make sure your key mapping is exactly same to ours.**

◆ **Transformation and lighting are the same with previous assignments**

Key Mapping

◆ **G: switch the magnification texture filtering mode between nearest / linear sampling**

◆ **B: switch the minification texture filtering mode between nearest / linear_mipmap_linear sampling**
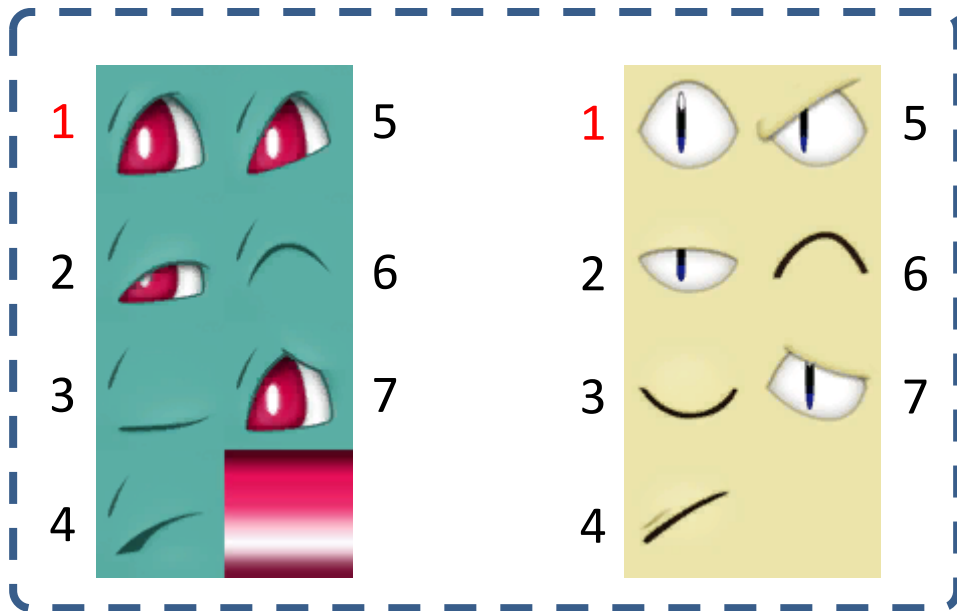
Key Mapping

◆ **Texture transform on some Pokemon models' eyes**

◆ **Apply change on normal order (1-7) when press right arrow key.**

◆ **Apply change on reverse order (7-1) when press left arrow key.**

◆ **Always use repeat mode for texture coordinate addressing.**

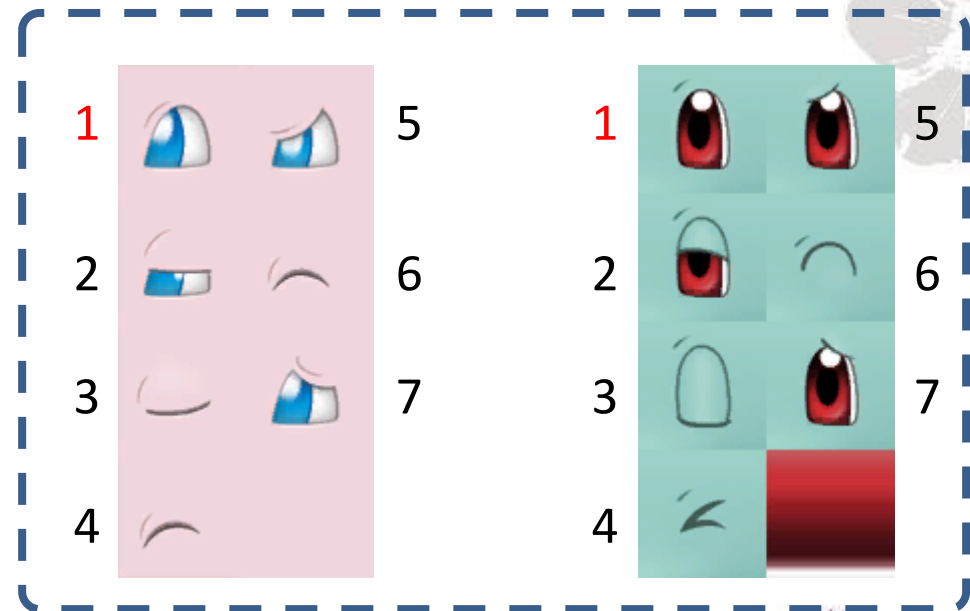# *Texture Models*

◆ **A: Normal texture coordinate ([0, 1])**

◆ **B: Need texture wrapping (texture coordinate > 1)**

A

B

Report

◆ **Some screen shot**

◆ **Description of your program control instructions**

◆ **Other special things you have done**

Grading Policy

Item	Score
Textured model rendered	35%
Magnification texture filtering mode switch	20%
Minification texture filtering mode switch	20%
Texture transform	20%
Report	5%
Total	100%