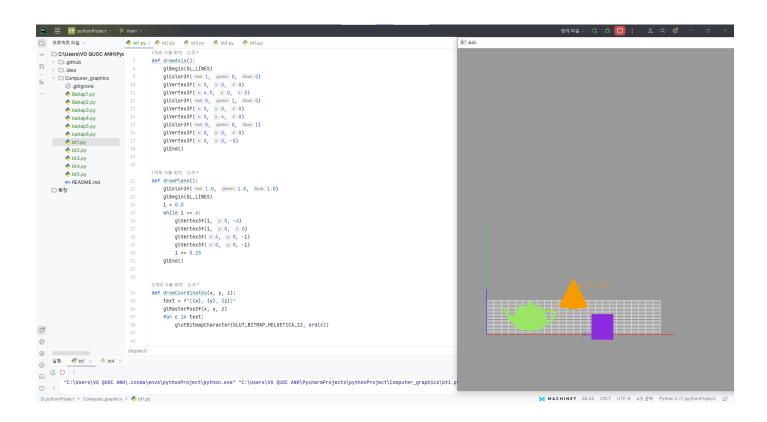


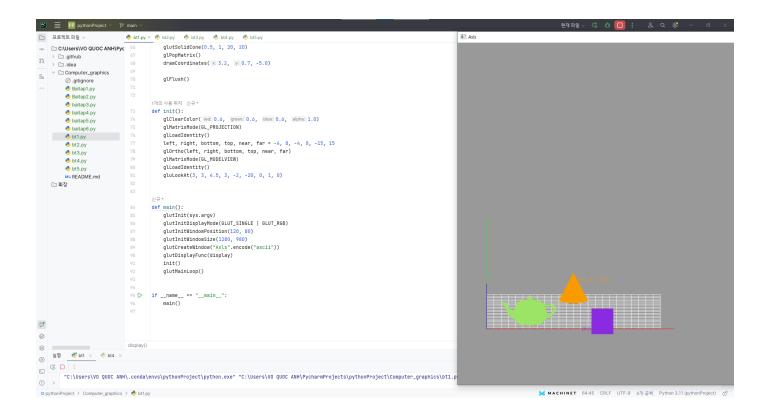
과목: 컴퓨터그래픽스 (DD709_1269)	전공: 컴퓨터공학전공
학번: 202111509	이름: 보꾸옥안

과제

문제 1 - 투영 변환

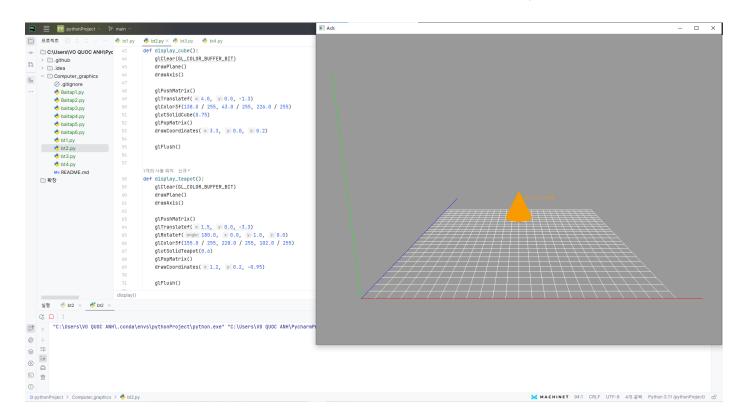
```
프로젝트 파일 🦠
                                                                                                                                                                                                                             ■ Axis
🕏 bt1.py × 👨 bt2.py 👨 bt3.py 👨 bt4.py 👶 bt5.py
      C:\Users\VO QUOC ANH\Pyc
                                                           1개의 사용 위치 신규 *
def display():
       > 🗀 .github
> 🗀 .idea
9%
          idea
Computer_graphics
Jitignore
Baitap1.py
Baitap2.py
baitap3.py
                                                                glClear(GL_COLOR_BUFFER_BIT)
                                                                 drawPlane()
              baitap3.py
baitap4.py
baitap5.py
baitap6.py
baitap6.py
bt1.py
bt2.py
bt3.py
                                                                 glPushMatrix()
glTranslatef( x 4.0, y: 0.0, -1.3)
glColor3f(138.0 / 255, 43.0 / 255, 226.0 / 255)
glutSolidCube(0.75)
                                                                  glPopMatrix()
drawCoordinates( x: 3.3, y: 0.0, z: 0.2)
               👨 bt4.py
               bt5.pv
                                                                 glPushHatrix()
glTranslatef( × 1.5, y: 0.0, -3.3)
glRotatef( ange: 180.0, × 0.0, y: 1.0, z: 0.0)
glCoLor3f(155.0 / 255, 228.0 / 255, 102.0 / 255)
               M+ README.md
      □ 확장
                                                                  qlutSolidTeapot(0.6)
                                                                  glPopMatrix()
drawCoordinates( × 1.2, y: 0.2, -0.95)
                                                                  glPushMatrix()
                                                                 qPushMatrix() glTanslatef( x 3.0, y 0.0, -5.0) glTanslatef( x 3.0, y 0.0, -5.0) glTanslatef(-9.0, x 1.0, y 0.0, x 0.0) glTanslatef(-9.0, x 1.0, y 0.0, x 0.0) glTanslatef(-9.0, x 1.0, y 0.0, x 0.0) glTanslatef(-9.0, x 0.0, x 0.0) glTanslatef( x 3.2, y 0.7, -5.0)
                                                                 glFlush()
                                                                                                                                                                                                                                                                                                 1개의 사용 위지 신규 *
def init():
D*
                                                                 glClearColor( red: 0.6, green: 8.6, blue: 8.6, alpha: 1.0)
0
8
       실형 🥰 bt1 🗴 🧓 bt4
(D)
C 0
              "C:\Users\VO QUOC ANH\.conda\envs\pythonProject\python.exe" "C:\Users\VO QUOC ANH\PycharmProjects\pythonProject\Computer_graphics\btl.p
① >
□ pythonProject > Computer_graphics > ♣ bt1.py
                                                                                                                                                                                                                                                                       ₩ MACHINET 64:45 CRLF UTF-8 4개공백 Python 3.11 (pythonProject)
```

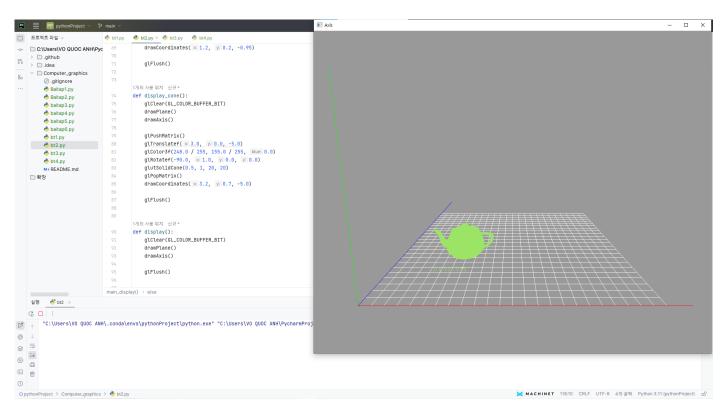


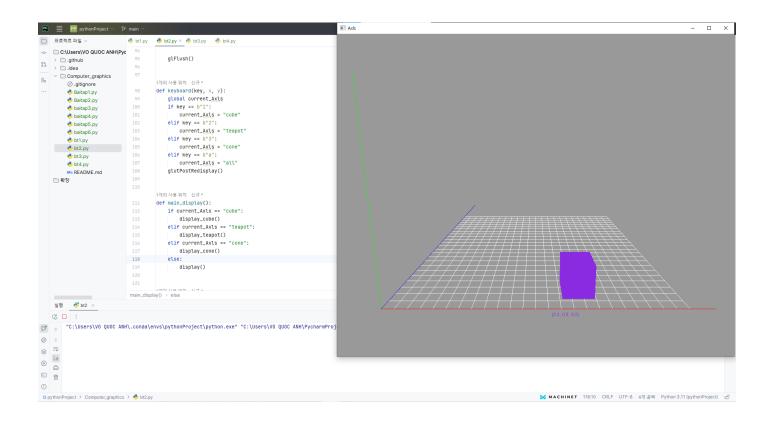


문제 2 - 뷰잉 볼륨

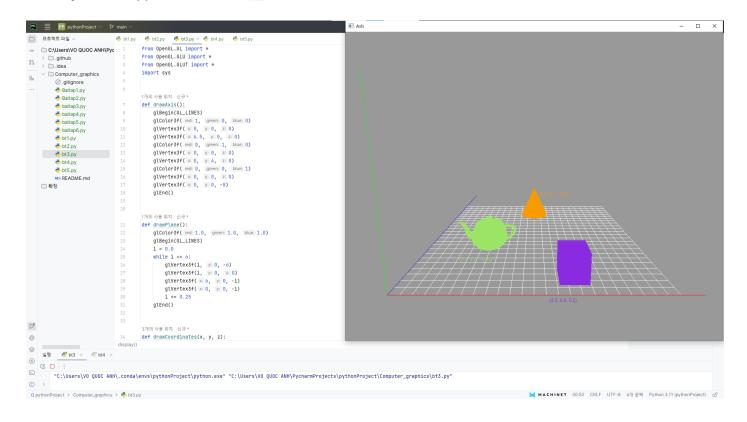
(프로그램을 실행하면 1, 2, 3 키를 눌러 각각의 물체를 단독으로 볼 수 있고 a 키를 눌러서 모든 물체를 함께 볼 수 있습니다)

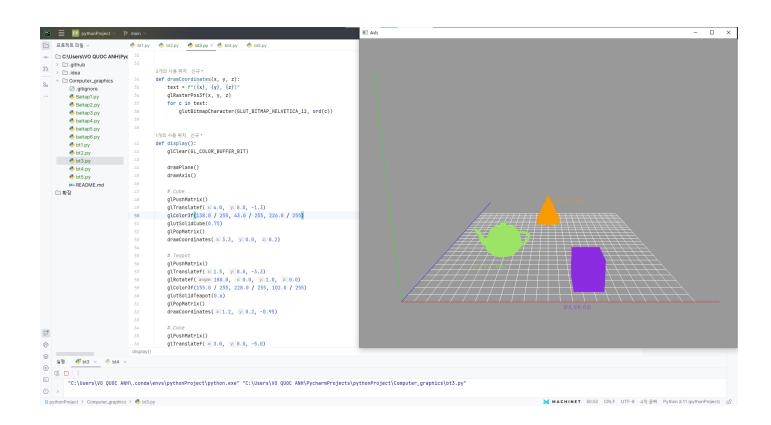


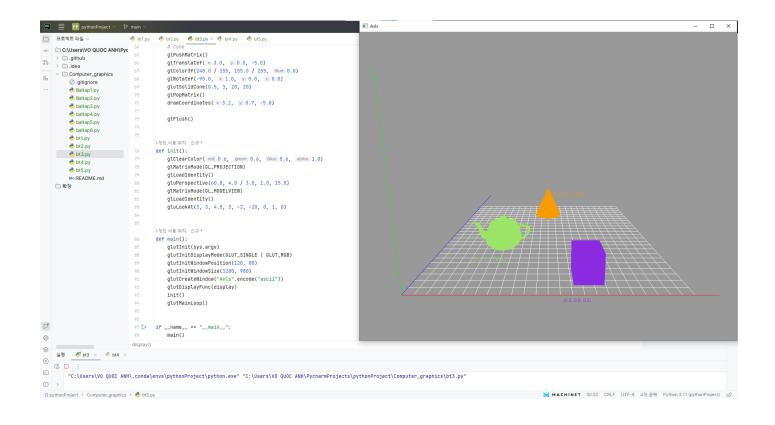




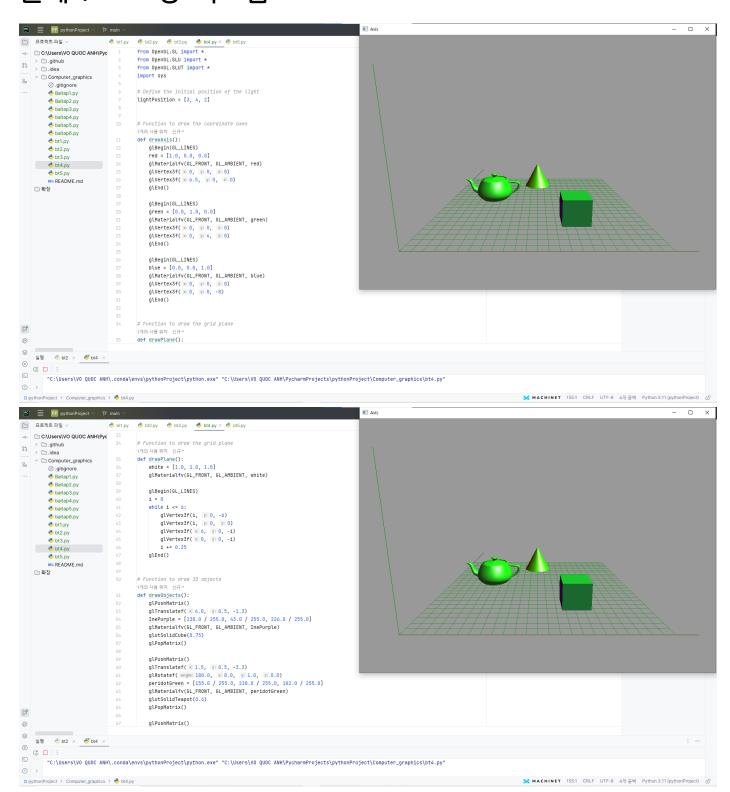
문제 3 - 뷰포트 변환

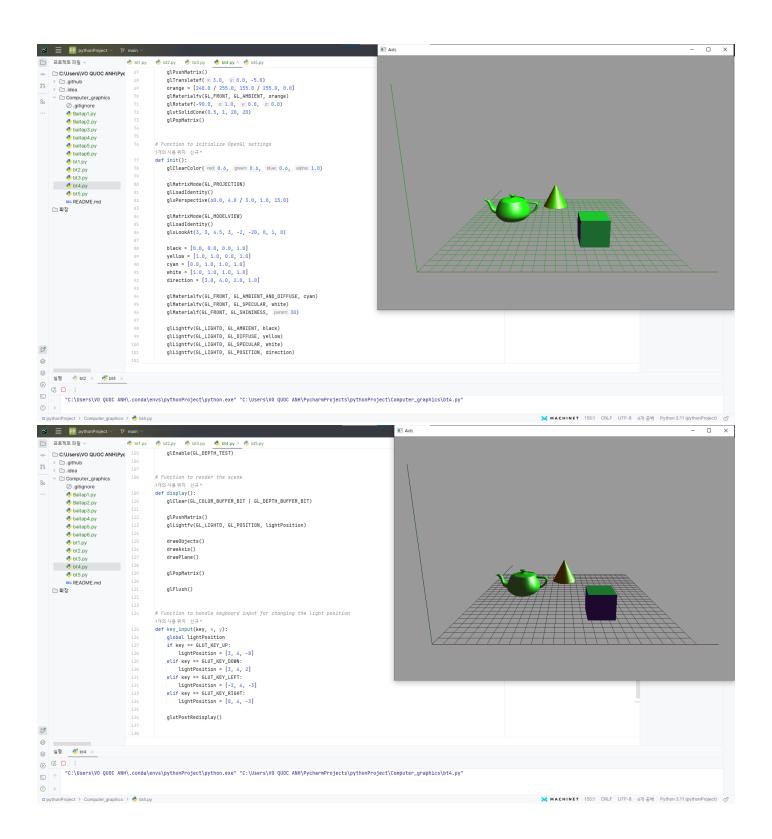


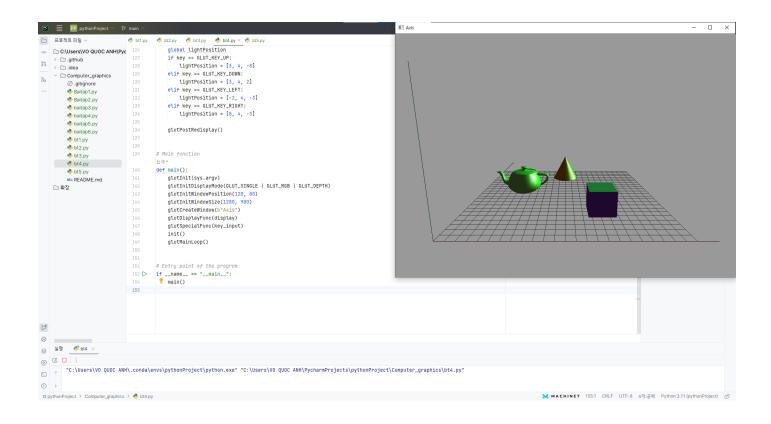




문제4 - 조명 시스템







문제 5 - 입출력 처리 죄송합니다. 어려워서 못 합니다