2025-1 Computer Graphics

PA 2

1 Display multiple polygonal objects. [5 pt]

- 1.1 Create three polygonal objects with different shapes and colors.
- 1.2 Use more than **four** triangles for each object. (*pentagon, house, star, etc.)
- 1.3 Self-rotate(자전) each object continuously against a **different** axis (x, y, z-axis).
- 1.4 All objects should be displayed at the same time.

2 Display various graphical modes using keyboard inputs. [3 pt]

- 2.1 **r**, **g**, **b** keys: change the background color to red, green, or blue color. (*The background color should be kept until it is changed.)
- 2.2 **w**, **s** keys: change the polygonal **fill mode** to **wireframe** or **solid**.
- 2.3 **c** keys: turn on and off the **back-face culling mode**.

3 Display different color brightness using keyboard inputs. [2 pt]

3.1 **1**, **2** keys: show full or half brightness by modifying the **pixel shader**.

• Implementation requirements

- ✓ Program should be executed in a **x86 (32-bit) Release** mode.
- The framework classes can be modified, but can**not** be deleted.
- ✓ All implemented functions should be executed from the **same** program.

Submission instruction

- ✓ 프로그램 build에 필요 없는 **폴더(Debug, Release, ipch) 및 파일(*.db)**은 모두 **삭제**.
 (*폴더 보기 → 표시 → 숨김 항목 → .vs 폴더 → ipch 폴더 및 *.db 파일 삭제)
- ✓ 필요한 설명이 있으면 "readme.txt"에 기술.
- ✓ 프로젝트 폴더 전체를 압축(ZIP, 제한: 1MB) 후 ClassRoom에 제출 (*E-mail로 받지 않음).

Cautions

- ✓ Visual Studio 2022 (DirectX 11)에서 source code가 build 안되거나, 프로그램 실행이 안되면 0점 처리.
- ✓ Source code의 copy시 원본 제공자와 복사자 모두 **0점** 처리.
- ✓ 제출 시간 지나면 0점 처리.