2021-1 Computer Graphics Practice (1)

Homework 2 (Due: 04/29)

- Modify the tutorial codes and implement the following functions,
  1. Display 3D models loaded from external files. (**4 pt**)
     - 1.1 Add an OBJ parser to the framework that loads a 3D model directly from an OBJ file. (Do NOT use the TXT files.)
     - 1.2 Search and display three 3D models at the same time. (Do NOT use simple primitives such as cube, cylinder, pyramid, etc.)
     - 1.3 Use a different texture for each model.
     - 1.4 Rotate each model continuously against the up axis (y-axis).
  2. Display a ground plane. (**2 pt**)
     - 2.1 Use a plane that covers an entire ground and shows the horizon.
     - 2.2 Apply a texture with patterns to the plane.
  3. Display different filtering effects using the keyboard inputs. (**4 pt**)
     - 3.1 "1": the point filter mode (D3D11_FILTER_MIN_MAG_MIP_POINT)
     - 3.2 "2": the linear filter mode (D3D11_FILTER_MIN_MAG_MIP_LINEAR)
     - 3.3 "3": the anisotropic filter mode (D3D11_FILTER_ANISOTROPIC)
     - 3.4 The visual difference between each filter mode should be clearly displayed.

  *Do **not** delete existing classes nor add new classes into the framework.
  *All project settings (DirectX includes and libraries) should be **properly** configured.
  *All functions should be executed from the **same** program.

- **Submission instruction (제출 요령)**
  - ✓ 프로그램 build에 필요 없는 폴더(debug, release, ipch) 및 파일(*.db)은 모두 삭제.
  - ✓ 프로그램 작동에 필요한 설명은 "readme.txt"에 기술.
  - ✓ 프로젝트 폴더 전체를 ZIP 파일(제한: 100MB)로 압축 후 ClassNet에 제출 (**E-mail로 받지 않음**).

- **Cautions (주의 사항)**
  - ✓ **Visual Studio 2019**과 **DirectX 11**만 사용.
  - ✓ Visual Studio에서 source code가 build 안되거나, 프로그램 실행이 안되면 **0점** 처리.
  - ✓ Source code의 copy시 원본 제공자와 복사자 모두 **0점** 처리.
  - ✓ 제출 시간 지나면 **0점** 처리.