Project Proposal for CG 100433 course
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Project Title
3D Sandbox

Motivation The motivation of your project,
Sandbox games, such as *Minecraft*, are very popular now. So we choose building a 3D sandbox as our project.

Goal of the project
Main goals
-Display the sandbox
-Can create and destroy the cubes in the sandbox
-Can save and load the sandbox

Sub goals
-Create terrains randomly
-More lighting and reflection effect
-Add Animal and human modules

Scope of the project
The minimum scale of the object in the sandbox is a 1x1 cube, finer modules are not supported.
We will implement all the main goals and sub goals mentioned before and add some details.

Related CG techniques
3D Viewing:the sandbox need to provide a interactive 3d game interface
Geometric Modeling:some other objects in the sandbox like animals need geometric modeling technique
Texture Mapping:different cubes in the sandbox have different textures

Project contents
display function （3D part）
mouse move response function
keyboard button response function

save and load function
mouse click response function
display function（2D and UI part)

Implementation plan
2nd Week -Start the project
8th Week – Complete all main goals
15th Week – Complete sub goals as more as possible

Roles in group
王楚天 – Software Architect
陈超凡 – Implement display function (3D part)
梁瑞鹏 – Implement mouse move response function
刘铸煌 – Implement keyboard button response function
涂远鹏 – Implement save and load function
郑玄词 – Implement mouse click response function
黎盛烜 – Implement display function(2D and UI part)

References
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