Project Plan - Cabin Fever

- General description of how each feature will be implemented. You may want to include pseudo-code for any complicated algorithms that will be involved. We just want to know that you have a general understanding of how each feature is implemented & Resources that you will use while implementing each technical feature. This may include SIGGRAPH papers, tutorials, or anything else you find that will be helpful when learning about the feature and how to implement it.
    - **Particle generation** (repurpose particles lab)
    - **Terrain mapping** (repurpose terrain lab)
        - Triplanar texturing:
            - https://gamedevelopment.tutsplus.com/articles/use-tri-planar-texture-mapping-for-better-terrain--gamedev-13821
            - https://www.volume-gfx.com/volume-rendering/triplanar-texturing/
        - https://www.codeproject.com/Articles/14154/OpenGL-Terrain-Generation-An-Introduction
        - https://www.3dgep.com/multi-textured-terrain-in-opengl/
    - **Texture Mapping** (Framebuffer Objects)
        - Paintings on walls
        - Wallpaper
    - **Collision detection** (Axis aligned bounding boxes w/ circles)
        - https://learnopengl.com/In-Practice/2D-Game/Collisions/Collision-detection
    - **Extras:**
        - **Reflections of environment map in window** (Metal & Glass lab)
            - https://learnopengl.com/Advanced-OpenGL/Cubemaps
        - **Panning POV around the room**
        - **Moving camera location** (Camtrans)
- High-level overview of the flow of your final program. How will all the pieces fit together?
    - Main ui: interactive image of window looking outwards from inside a house
    - Sliders/toggle: how hard it is snowing (rate/size?), terrain (mountains/forest), button to throw snowball at window
- Division of labor and plan of action
    - Who will do what?
        - All: UI, basic scene setup
        - Trevor: Texture mapping, reflection of environment map
        - Anna: Particles
        - Rena: Terrain
    - Where will you start? This plan of action should account for the possibility that you do not finish everything you set out to finish (see the gear up about our expectations). Design your project plan so that even if you only get part way through you still an incomplete but displayable project.

- Build ui
- Build window scene
- Individual components (glass reflection, particles, terrain)
- Texture mapping, collision detection (snowball)
- Extras