**Assignment 1**

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1. The scene consists of an environment with snowy mountains, as well as water bodies/beaches. The terrain helps create tall mountains and deeper canyons.
2. There are three types of trees and three types of rocks used to complete the environment. 2 types of trees (oak and fir) are placed on the grassland sections of the environment, palm trees are placed on the sandy part of the environment that is over the water level. Rocks are found on the rocky part of the environment.
3. I created an atlas of 16 textures. 4 out of the 16 textures (sand, grass, stone, and snow) were used to create the terrain. Different textures were chosen based on the height of the terrain. During the terrain generation process, I generated a random number between 0.0 and 1.0. That number was used to decide whether an object should be placed on the terrain or not. I also added a blue colored plane at a certain level to represent water. Terrain generated below a certain level (y=--5) would be under this plane. Additionally, I created 3 extra planes to surround the current plane to make a larger environment.
4. Sources:
   1. Textures: <https://opengameart.org/content/64x-textures-an-overlays>
   2. Skybox: Fantasy Skybox Free by RENDER KNIGHT (Unity asset store)
   3. Rocks: Rock\_Pack by ZAKMAN (Unity asset store)
   4. Trees: Free Trees by ADA\_KING (Unity asset store)
5. To expand this environment, I would debug/implement threading since the environment takes too long to load the terrain and items. Additionally, I would implement chunking to spawn additional chunks and hide older chunks that the player is not on.