I have put more hours than I would like to admit into dungeon crawler games like Diablo and Path of Exile. For my project I would like to implement randomly generated dungeons that are a cornerstone of these games. Generating the dungeon layouts would be the main focus of this project but more can be added to meet the final project requirements.

To implement the dungeons, I would generate “boxes” that would represent a room and smaller rectangles would represent corridors connecting the rooms. I would also like to have differing levels by varying the Y of each room and connecting them with a staircase. Things that would be randomized would be room positions (XYZ), room connections (north, south, east, west), number of connections on a given room, and room sizes. To give each room some uniqueness I will look for some wall textures online or come up with something on my own. These wall textures can be randomly chosen as well. I will also use lighting and have simple light fixtures in each room.

If what I have said already is not enough the next thing I would add is interactivity. I already plan to have the user walk through the dungeon by manipulating the camera. A simple application of this would take the form of doors that can be opened / closed. More advanced applications can be small puzzles to get through each room. I could create a list of puzzles and randomly add them to each room. These would all be accompanied with animations such as the door opening and closing.