# New Beginnings – Summer 2018

# C++ Programming - Course Project – Dungeon Game

For the remainder of the course, we’ll be building a fun dungeon game. This will use all/most of the concepts we are learning this summer

## Phase 0 – Critical Decision

This the most important phase of writing great game. You should give extensive thought and consideration during this phase. To be successful, answer the following question well:

**What is the name of your game?**

If you do this right, everything else will fall in to place. ☺

## Phase 1 – Getting started – Directory Structure and User Input

Once you have a name, create a directory by that name. You will keep all of your source files, compiled files and tests in this directory.

Create two directories in that new directory:

1. “src” – This is where you will keep all of your source code.
2. “bin” – This is where you will keep the compiled output. “bin” stands for binary and is a standard directory name for executable programs.

In the src directory, create a cpp file with the same name as your game. This will contain your “main” routine.

Now add the main routine with the following:

1. A 10x10 2-dimensional array of integers
   1. Initialize the array to all 0’s
2. Two ints that represent the position of the player in the grid.
   1. Start with the player at 0, 0
   2. Set the value of the array at 0, 0 to 1
3. A while loop that takes player input
   1. Compare the player input
      1. N, E, S, W for moving the player
         1. Call the move\_player function(see #4 below)
         2. Call the print\_map function(see #5 below)
      2. X to exit the game
4. Create a new function(move\_player) that takes the array, the player position(x and y) and the input.
   1. The function will move the player appropriately – changing the values of the array.
   2. You decide what to do if the player is at the edge of the map
      1. Wrap around – infinite map
      2. Stay where they are – hit a wall
      3. Exit the game – fell off a cliff
5. Create a new function(print\_map) that prints out the array to stdout(cout).

To compile your code, from the top directory(the name of your program), run(replacing <game name> with the actual name you gave your game):

g++ -o bin/<game name> src/\*.cpp

To run the newly compiled program

./bin/<game name>

Compile, debug, run, debug, repeat!

## Phase 2 – Build the Dungeon

TBD

## Phase 3 – Build the Player

TBD

## Phase 4 – Build the Items

TBD