- 1. Go through directions and put in necessary libraries
- 2. Create functions to display introductions
- 3. Create enum types
- 4. Create corresponding arrays based on enum types
- 5. Create function to initialize board
  - a. Pass in arrays then use a single nested for loop to set each value of the 2D array to empty on board array and none on color array
- 6. Create function to randomly assign game pieces
  - a. Use srand to seed with time
  - b. Use rand with proper ranges to get random locations
  - c. Use do-while loops to make sure that all randomly generated numbers never end up filling an already filled slot
- 7. Create function to display board
  - a. Use single nested for loop to print out board
  - b. Place non-array board using properly positioned cout statements
  - c. Use given strings and if statements to print with colors

Example output (format's not exactly right since I copy and pasted this straight from Putty)

Department: Computer Science
Course Number: CSCE 1030
Name: David Zhao

EUID: dz0086

Email: davidzhao@unt.edu

Welcome to 1030 Stratego

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This program will set up a 5x5 game board for a 1030 version of the game of Stratego. One player will compete against the computer, each assigned 10 total pieces consisting of the following:

- 1 Flag (F)
- 3 BOMB (B)
- 1 Marshal (1) or GENERAL (2)
- 3 COLONEL (3), MAJOR (4), CAPTAIN (5), LIEUTENANT (6), or SERGEANT (7)
- 1 MINER (8)
- 1 SPY (S)

## GENERAL RULES:

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For the most part, the game will follow the standard Stratego rules, although there are some exceptions.

- 1. Both players (BLUE and RED) will have all of their 10 game pieces assigned randomly with the only requirement being that the FLAG must be placed in the back row. RED will start the game first.
- 2. Higher ranked pieces can capture lower ranked pieces in the following

order:  $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5 \rightarrow 6 \rightarrow 7 \rightarrow 8 \rightarrow S$ , meaning that 1 (the MARSHAL) can remove 2 (the GENERAL) and so forth. The MINER (8) piece may strike a BOMB and remove it to occupy the now unoccupied space. A SPY (S), although the lowest ranked piece, may remove the MARSHAL (1) or the GENERAL (2).

- 3. The FLAG and BOMBs are not moveable while all of the other pieces may move one square at a time forward, backward, or sideward, but not diagonally to an open square.
- 4. A player must either move or strike on his/her turn.
- 5. The game ends when a player strikes his/her opponent's flag.

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12345
+-----+
A|1F3BS|
B|38BB6|
C| |
D|71SBB|
E|63FB8|
+------+
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