## SHORT REPORT

All the .c files are given.

main.c - The program reads input from the user to move the player to take action, displays the map. If the ball reaches the goal, the game is won. The code also handles errors and memory management.

map.c – here the code involves where the player moves around the map to push the randomize box location to the goal location.

- "initialmap" initializes the map with P, G and the map boundary markers.
- "createmp" creates the map with a randomized box location.
- "printmp"- prints the map with the colored cell positions for goal where it is red and when the goal goes inside it turns green.
- "free\_memory" to free the allocated memory
- "validity" checks if the movements are within the map boundaries and if it is possible to push the box.
- "UpdateTheMap" updates the map by moving the player and the box.

player.c- contains the functions related to player like create player, destroy player, move player and print player

- "createPlayer" it creates a player object and returns the pointer to it.it allocates memory for the player object using malloc ()
- "moveP" updates the row and column positions of the player.
- "deleteP" frees the memory allocated
- "display" prints the current position of the player

random.c- this contains initRandom and randomUCP functions where this is used to randomize the location of B every time the map is created again and again. (The functions are the same as it has given)

terminal.c - contains the disable Buffer and enable Buffer.it reads the user input by turning on or off (you don't have to press enter after every wasd command).

color.c - it sets the background colors of the individual cells in the game, to make it more appealing. (If B not inside G, G is red, if B inside G, it turns green).

"CELL"- sets the background color of the cell position.

## **MAKEFILE**

makefile - for compilation and linking command for the final executable file "game".

The whole game is in the "game"

## HEADER FILES,

map.h- header file for main.c and map.c

player.h - header file for player.c

random.h -header file for random.c

terminal.h – header file for terminal.c

color.h - header file for color.c

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OVERALL, the whole game works but not question 3.9 the pull condition (questions in the assignment specification), the codes does work upto question 3.9. My pull condition did not work correctly to meet the requirements of the question 3.9.

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