Mention again 1st project in c and feedback on implementation techniques regarding c would be appreciated

Difficulty getting box\_num calculations to work, eventually realised needed to do calculation as int to truncate decimals

memory allocation code adapted from (No name or date, Multidimensional arrays in C, <https://www.uio.no/studier/emner/matnat/ifi/IN3200/v19/teaching-material/multidimarrays.pdf>)

started by building and initialising grid.

Worked on code to display grid, made adaptive so just need to change SIZE in one place and the correct board would be created.

Split up box calculation and used to calculate when new box either horizontally or vertically.

Created partially\_complete method, managed to fill correct boxes with same int for all sizes of board.

Considered how to generate unique random numbers to fill each box, created doubly linked circular list “create\_box\_num\_list” method to store all numbers with idea to remove each number as selected. Used circular so do not need to worry about where the list pointer is pointing, and just move the pointer along in list by a random number to max number of elements in list -1 (no point looping through to point back at the same element). If loop for moving pointer along only moves pointer when there are greater than 1 elements remaining so not to waste time by moving pointer to point at itself.

Had difficulties with free(temp), it hung when it was in if loop for updating pointer.

Found formatting required adjustment for when double digits get inserted in the grid (grid size > 9)

After creating create\_box\_num\_list function and node structure, realised could create a structure to hold all the candidates for rows, columns and boxes. This could then be used to complete / solve the board. It would also remove the requirement for a check\_valid method, as everything inserted would have to be valid if its still a candidate (just look for matches between the row/box/column candidates). It would also reduce the time to compute as now not just trying any number, but only candidates.