1. Read the file
   * 1. Open it
     2. Read first line to extract the row of the file
     3. Read second line to extract the column of file
     4. Read the rest of the line store the numbers in a 2-d sequence coordination system
2. Create a console to display the read lines
3. Set the mouse position at 0, 0
4. Check the surrounding of the mouse for openings
   * + 1. If there is an opening the mouse can pass through go to it
       2. If there is an opening at the right side add 1 to the column
       3. If there is a opening at the left side minus 1 to the column
       4. If there is a opening at the top side minus 1 to the row
       5. If there is an opening at the bottom side add 1 to the row
5. If the mouse has already moved in a position where it’s been before backtrack
   * 1. If mouse the spot where the mouse has already been at the right side then add 1 to column
     2. If mouse the spot where the mouse has already been at the left side then minus1 to column
     3. If mouse the spot where the mouse has already been at the top side then minus 1 to row
     4. If mouse the spot where the mouse has already been at the top side then add 1 to row
6. Check the surrounding of the mouse for no walls
   * 1. If there is no wall at the right side add 1 to the column
     2. If there is no wall at the left side minus 1 to the column
     3. If there is no wall at the top side minus 1 to the row
     4. If there is no wall at the bottom side add 1 to the row
7. Check the surrounding of the mouse for the cheese
   * + 1. If there is a cheese at the right side add1 to column
       2. If there is a cheese at the left side minus 1 to column
       3. If there is a cheese at the top side minus 1 to row
       4. If there is a cheese at the bottom side add 1 to row
8. Store the change in movement into memory to be used in 2nd run
9. Relocate the mouse depend on the new location
   1. If the new location of the mouse is a opening change it to a mouse
      1. If the new location of the mouse is already a mouse then change it to a backtrack route
      2. If the new location of the mouse is the cheese then stop the mouse
10. If there is no cheese found then repeat step 4 downwards
11. Reset ,when the cheese from first run is found
    1. Read the file again
       1. Open it
       2. Read first line to extract the row of the file
       3. Read second line to extract the column of file
       4. Read the rest of the line store the numbers in a 2-d sequence coordination system

11.2 Set back the coordinate of mouse back to (0, 0)

1. Start dead end filler
   1. Check the 4 corners
      1. If its top left corner 0,0 and it’s a opening
         1. Check the right side and bottom side for a wall
         2. If there is a wall on either side then change 0,0 to a wall
      2. If its top right corner( 0, column) and it’s a opening
         1. Check the left side and bottom side for a wall
         2. If there is a wall on either side then change (0,column )to a wall
      3. If its bottom left corner (row, 0) and it’s a opening
         1. Check the top side and right side for a wall
         2. If there is a wall on either side then change (row,0) to a wall
      4. If its bottom right corner (row , column) and it’s a opening
         1. Check the top side and left side for a wall
         2. If there is a wall on either side then change (row, column) to a wall
   2. Check all sides coordinates
      1. If it’s on the top and is a opening then
         1. Check the bottom , right , left sides for a wall
         2. If ifs surrounded by 2 or 3 wall then change the opening to a wall
      2. If it’s on the bottom side and is a opening
         1. Check the top , right , left side for a wall
         2. If ifs surrounded by 2 or 3 wall then change the opening to a wall
      3. If it’s on the right side and it’s a opening
         1. Check the left , bottom ,top side for a wall
         2. If ifs surrounded by 2 or 3 wall then change the opening to a wall
      4. If it’s on the left t side and it’s a opening
         1. Check the right , bottom ,top side for a wall
         2. If ifs surrounded by 2 or 3 wall then change the opening to a wall
   3. Check all center coordinates
      1. If it’s in the center and a opening then
         1. Check all direction bottom , right ,left , top for a wall
         2. If its surrounded by 3 or 4 walls then change the opening to a wall
   4. Repeat 11.1 – 11.3 until there is nothing to change into a wall
2. Do step 4-9 on the modified maze
3. Read the file again
4. Using the memory from step 8 move according from the beginning step to end
   1. Check the surrounding of the mouse for the cheese
      * + 1. If there is a cheese at the right side add1 to column
          2. If there is a cheese at the left side minus 1 to column
          3. If there is a cheese at the top side minus 1 to row
          4. If there is a cheese at the bottom side add 1 to row
   2. Display a message to show that cheese has been found