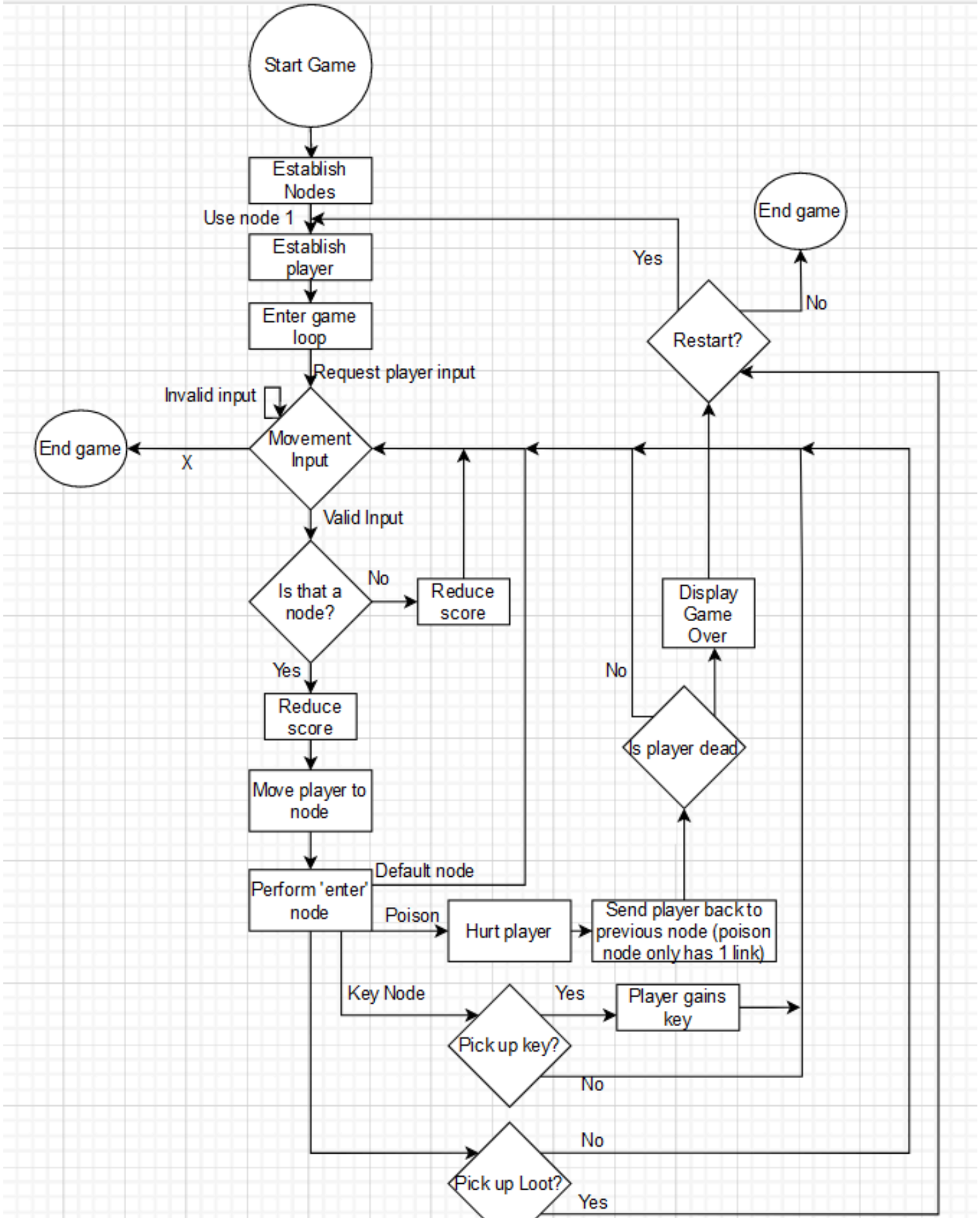
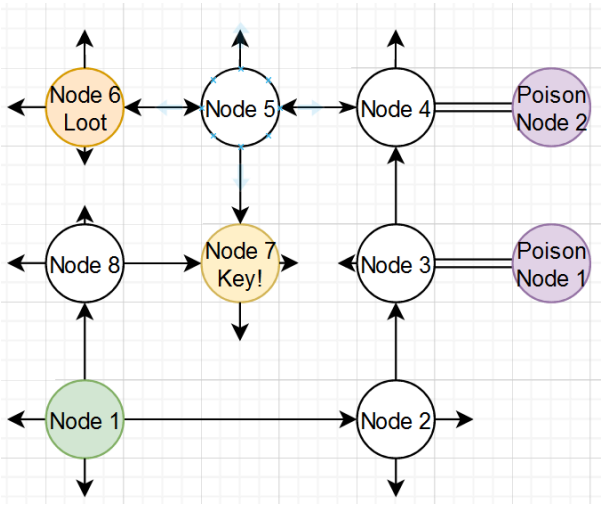
Assignment 1:
a)
So….I think the answer you want is
out1:16
out2:17
However you (i assume it is a typo) used the undeclared variable ‘n’. So this would not compile.

b)
6 11 16 21 26

2) only code? Its in the zip.
3) below are my flow charts and preparation for nodes.


Start Game
Establish Nodes
Use node 1
Establish player
Enter game loop
Request player input
Invalid input
Movement Input
End game
X
Valid Input
Is that a node?
No
Reduce score
Yes
Reduce score
Move player to node
Perform 'enter' node
Default node
Poison
Hurt player
Send player back to previous node (poison node only has 1 link)
Key Node
Pick up key?
Yes
Player gains key
No
Pick up Loot?
No
Yes
Is player dead
No
Display Game Over
Restart?
Yes
No
End game



-Nodes will need cardinal pointers.
-Derived class for key node, derived class for loot node.
-Derived poison nodes.
-Poison nodes when stepped on should poison the player, and send them back to the node you came from

So nodes need: 4 pointers, and a ‘enter’ function (does nothing in base class)
Key node needs:override ‘enter function
Loot node needs: override ‘enter’ function
Poison nodes need: override ‘enter’ function

-Key node enter function; ask player if they shall pick up the key. If they do, set ‘hasKey’ on player true
-Loot node enter function; if player hasKey, ask player if they shall pick up the loot. If they do, end the game.
-Poison node enter function; player takes one damage, and is sent back the node 3. This should not cost player the movement score penalty.

Player needs: (player is just a collection of variables, a class is redundant here i think)
The node they are on(location)
Int health
bool hasKey
Int score

As for general functions, I will need a ‘assign.reassign all player values’ function, ‘assign all node links’ function, and a ‘game over function’. Also, you need to change location to our current location’s relevant direction as per player input. If the direction reference is a nullptr, you run into a wall instead! I think that is clever, anyways.