

Assignment 4: Hunt the Wumpus

Problem statement:

Write a C++ program that plays the game "Hunt the Wumpus". The program should use abstract polymorphic classes. The game takes place on a grid of caves, each cave may be connected to another cave. Inside the cave may be hazards: bats, pits, or the wumpus, or a cave could contain gold. the object of the game is for the player to kill the wumpus and get the gold.

Understanding the problem:

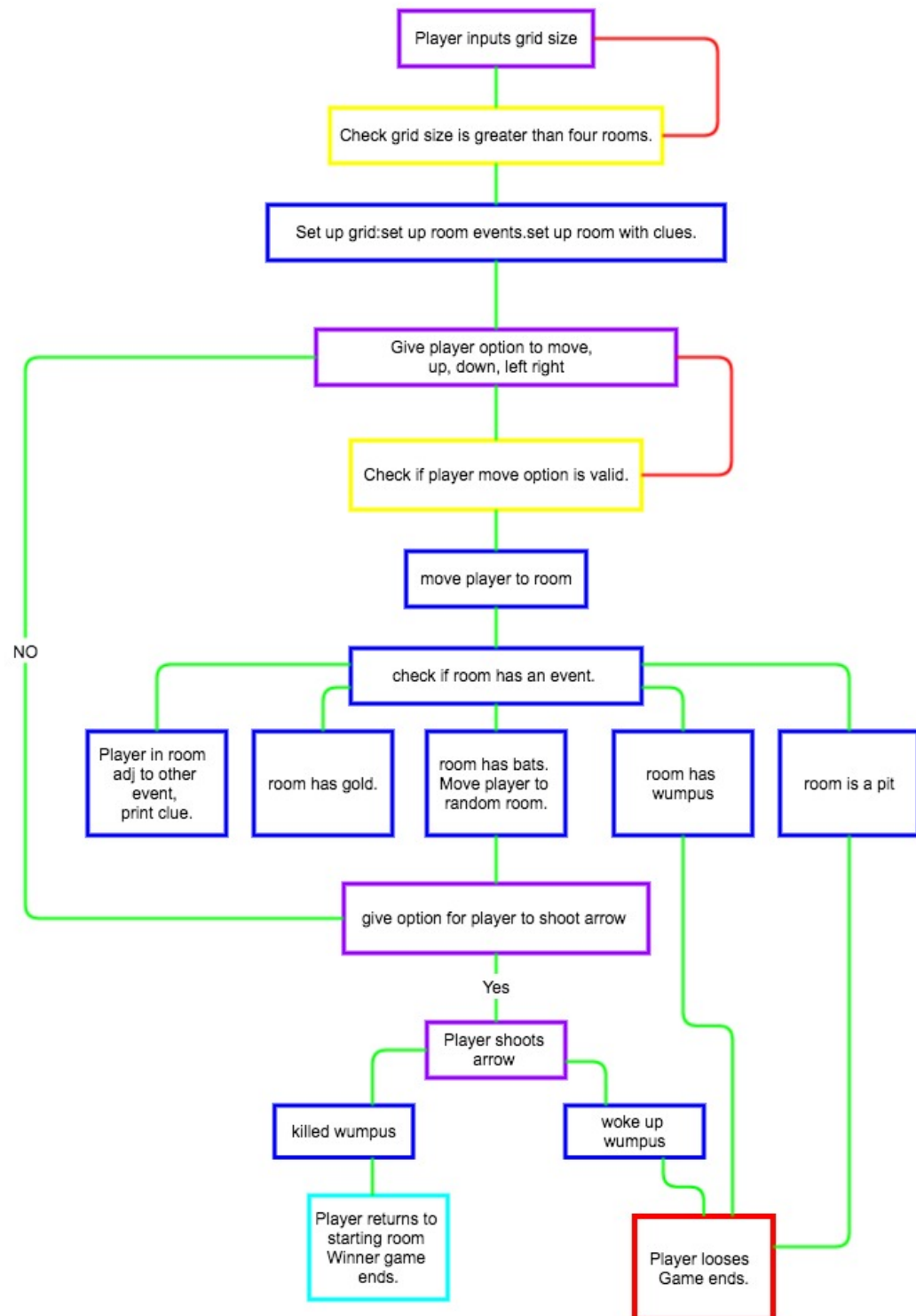
The adventure starts in a room on the grid, this room will also be the escape room after the player has completed the task of killing the wumpus and retrieving the gold. The player can move around the grid, from room to room, since each is connected to at least a other room and no more than four other room. If a player is in a room that is adjacent to any of our events, he will receive a clue:

Nearby Event	Clue
Wumpus	You smell a terrible stench
Super Bats	You hear wings flapping
Bottomless pit	You feel a breeze
Gold	You see a glimmer nearby

If the player thinks he knows the location of the wumpus he will fire an arrow in the direction of the room (arrow can fly only a distance of 5 rooms). If he misses he will wake up the wumpus, the wumpus will kill the player and the game will end.

Once the player has killed the wumpus and retrieved the gold, he must travel back o the starting room and he will win and the game ends.

Design:



Test:

Check to see that grid has events set up.

Check to see that rooms adjacent to events have clues.

check to see players can move to each room.

check to see that the player enters a grid that is greater than 4 rooms.

Check to see that if a player enters a room with an event, that the event takes place.