**Algorithm for Adventure Game**

* Game is organized in a series of choices
  + each choice will take you to another option of choices
* Game will be a series of nodes, where each node is a choice
  + Each node will have 5 strings:
    - a string(what’s the story?)
    - a menu item(menuA, explains choice) for choice A
    - a node we go to if user chooses A
    - a menu item(menuB, explains choice) for choice B
    - a node we go to if user chooses B
  + From the story, make two choices (nodeA / nodeB)
    - Each choice has two parts:
      * One the user sees (menuA / menuB)
      * One hidden away from user in code (nodeA / nodeB)
    - Either option points to a new node or end of game
* Very first node will be called “start”
  + Start will get the beginning of the story (ex: what room you’re in)
  + Start will have two options
  + User makes choices (nodeA / nodeB) and those point to other nodes
* If the new node is “quit”, the game ends

**Pseudocode**

main():

parameters: n/a

going to need to know next node from playerNode

runs game until it is finished

while keepGoing is true

lookup the node we are on

if node is quit

keepGoing gets False

else press on

getGame():

parameters: n/a

contains a dictionary(called game) of each node and their options

returns game

playerNode():

parameters: game

take in a node string

process player input

self-validating input

returns the next node

getGame dictionary

"start": ["You and three buddies are injured while trekking a mountain range. Wolves notice and start their hunt.", "Stand your ground and fight the wolves", "stand", "Turn and try to run away", "run"],

"stand": ["Did I forget to mention you're already injured and being hunted BY WOLVES?", "Stay and try to fight the wolves off", "fight", "Turn and try to run away", "run"],

"run": ["You and your buddies manage to get some distance from the wolves. But you're near a cliff side.", "Stay and shelter in place", "stay", "Keep moving", "move"],

"fight": ["You and your buddies don't have the strength to fight. You managed to escape but the wolves got your buddies.", "Move on and look for shelter", "shelter", "Go back for your buddies", "buddies"],

"stay": ["You forage the area and find enough to build a small shelter. Do you:", "Split up to gather firewood and food", "split", "Get some rest", "rest"],

"move": ["You're all extremely exhausted. The wolves catch up and have a little snack.", "Start over", "start", "Quit", "quit"],

"shelter": ["You find a little cove in the mountain side and decide to rest there for the night. Unbeknownst to you the cove is a den for a Momma bear and her cubs.", "Start over", "start", "Quit", "quit"],

"buddies": ["You manage to get back to where the wolves took your buddies and see trails of blood going deeper into the mountain.", "Start over", "start", "Turn back and search for shelter", "shelter"],

"split": ["While you were split up you were vulnerable. The wolves split and we're able to take you all out.", "Start over", "start", "Quit", "quit"],

"rest": ["You're all feeling overwhelming lucky the wolves didn't attack at night. But also, very hungry.", "Split up to gather firewood and food", "split", "Start your trek back to civilization", "trek"],

"trek": ["On your way back you stumble upon a stream of water filled with fish.", "Fish for food", "fish", "Continue your hike back", "hike"],

"fish": ["While you were fishing a bear snuck up on your group and had a little snack.", "Start over", "start", "Quit", "quit"],

"hike": ["You and your buddies can finally see a little village. You all start running in joy and make it out alive!", "Start over", "start", "Quit", "quit"],