Shqiperi
APCS2 pd2
Daniel Gelfand, Rubin Peci, Tim Marder
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Final Project Proposal
"Maze Runner"

A maze is randomly generated. An Albanian warrior by the name of Dubim must get out of the maze alive to complete the game.

General:

● Driver class that generates maze and runs the game
    - Maze will be generated via Growing Tree method, which utilizes a binary tree to randomly create a maze, which will ensure a new experience for each player
    - The graphics will be dealt with in processing
● Hero class to contain the instance variables and actions of Dubim
    - This class will have a variety of stats and an inventory that is stored via ArrayList, allowing it to easily be edited and expanded upon

● This will NOT be turn-based - rather there will simply be a speed stat that stores each creatures actions in a queue
    - The higher the speed stat is, the earlier it will be added to the queue
● Trap class used to add Trap objects to the maze.

Class description:
○ Creature superclass
    - Will have methods each and every living thing in the game will use, to be extended by the Hero and Monster subclasses
● Hero
    - Have methods to deal with the movement of the character, as well as leveling up and taking damage
● Cells/Nodes/Tiles superclass
    - Will have basic attributes of any tile, which will be the parent of any other tile class
    - Current tile classes:
    - Floor
    - Wall
    - Trap
    - Door
    - Stair (exit)
○ Monster superclass
    - Will have the basic traits of a monster, and have the Creature class as its superclass

   - Various monsters that emphasize certain traits

◯ Inventory

   - Each creature will have an inventory that is dropped upon death

   - Monsters will have a smaller inventory size that drop less

   - Bosses/harder monsters will have more size and more valuable drops

   - The player's inventory is reset on death - it is a roguelike after all!

   - Collection type will most likely be an ArrayList

◯ Displaying each and every object will most likely include having static sprites, as in they aren't animated and just move across the screen

Stretch:

◯ Possible sprite animation

● Have several main bosses

● Somewhat of a story?

● Infinite levels

   - Allow the user to keep on progressing until they die