GameMaker: Jardine Middle School 2014

(all content for this class, including Gamemaker and additional resources, is available at http://tinyurl.com/Gamemaker2014)

Platform Games

Game Description:

1. create a main character that moves with the arrow keys
2. the character is in a room with walls. The character can't pass through the walls
3. the room also has enemies. If the character hits the enemies, it dies
4. bonus: add background music and background image
5. bonus: draw your own sprites
6. bonus: the character can shoot the enemies
7. bonus: have the character collect "goodies" to get points
8. bonus: there is a portal in the room. When the character touches the portal, it goes to a new room with new enemies
9. bonus: the character gets points for shooting enemies
10. double bonus: the character must first shoot all of the enemies before the portal is activated
11. double bonus: the character looses points gradually based on the time it takes to complete the maze

I. Make a character that moves with the arrow keys, add walls

1. Create a sprite for the character
2. Create an object for the character
   a. add a keyboard event for "keyboard → left": jump to (-4,0) relative
   b. do the same for keyboards right, up, down
3. add the character in the room
4. make a sprite and an object for the wall
5. add the walls to the room

II. Make character unable to travel through walls

1. Keyboard → left event, before the action to move, add:
   a. check for collision (-4,0) not
   b. beginning of block
   c. put your move action here
   d. ending of block
2. use the same logic for the right, up, down keyboard events

III. Add enemies:

1. Add a sprite for your enemy
2. Add an object for your enemy
3. Copying what you did in our first game, make the enemy move randomly when it is created
4. make sure your enemy bounces off of the perimeter of the room
5. create a collision event so your main character dies when it hits an enemy.
6. bonus: use a different wall inside the room so the enemy can pass through inside walls but the character cannot
7. bonus: use an alarm to periodically change the movement of your enemy

IV. Bonus: make your character able to shoot (difficult)

1. Create a sprite and object for your bullet
2. Add an event to your bullet: other → outside room: destroy the instance
3. Set a variable called *direction* in your main character. This will be the angle the bullet shoots in (0 = right, 90 = up, etc.)
4. in each of your keyboard events, set the variable *direction* to the direction your character is moving
5. set a keyboard space event with action "create moving instance" of object bullet with direction *direction* at location (0,0) relative and speed something fast (try 8, for example)
6. Bonus: limit the number of bullets than can be on the screen at once. (hint: use a variable)
7. Bonus: limit the time between bullets i.e. can't fire too fast (hint: use an alarm and a variable)

V. Bonus: Get Points for collecting goodies

1. Create a sprite and object for your goodies
2. Put your goodies in your room
3. Add a collision event in your main character with a goody:
   a. destroy instance: other
   b. add to score, relative
   c. play a "good" sound

Don't forget to save your work on your flash drive!