DESCRIPTION

1. Scenario of Game

Cartoon characters designed based on our teachers Isaac and Thorsten as heroes of the game. The theme of the game is cowboy. The scenario of the game is that in the mysterious desert, issac and thorsten face a constant stream of monsters. They need to move and destroy monsters to avoid being harmed. And they have weapon which is boomerang to shoot monsters. There are three kinds of monsters in the desert, Goblin, Treant and Dragon. They appear over time. Goblin will constantly jitter and appear randomly. Treants are larger than Goblin and harder to avoid. The dragon will always spit fire on the cowboy. The cowboy needs to eliminate them or avoid them. There is only one condition for success, survival over 60 seconds!

2. Introduction:

First of all, the game consists of two characters. Issac has 100 points of blood, moves faster, and deals 15 damage. Thorston has 200 blood, moves slowly, and attacks deal 20 damage. When the player presses the r key, they can switch roles. There are a lot of goblin jitters and appear randomly when the game start. Player will deduct 10 points of blood when touches the Goblin. The player needs to dodge or attack it. The player has a boomerang. When the boomerang hits a monster, the monster will deduct a certain amount of health. The dragon will appear at 20 seconds. The dragon will constantly spit fire on the player. Once the flame touches the player, it will deduct 5 points of blood. When the game time exceeds 40 seconds, the tree spirit will appear and the Goblin will increase. Treants are bigger and harder to avoid than Goblin. When the player survival over 60 seconds, will becomes the winner. Conversely, if the player's health is reduced to 0 within 60 seconds, they fails.

3. Character of Game

i. Two Heroes

"Isaac" (HP:100, speed:10, attack:15)   "Thorsten" (HP:200, speed:6, attack:20)

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ii. Monster

Goblin(HP:100, size(60,60)   Treant(HP:100, size(75,75))   Dragon (HP:1000, size(90,90)

iii. Weapon

Isaac's boomerang (attack:15)   Thorsten's boomerang(attack:20)   Dragon' flame(attack:5)

4. Class Design

The following class had been designed.(The main class provided by pygame.sprite.Sprite)

Class name:	Description:	Relation:
Hero()	"Isaac"	Same Functions. But the size, image, moving speed of hero are different.
Hero2(Hero)	"Thorsten"	
Enemy1()	"Goblin"	enemy will be deleted, and create a new one. Their appearing position is random. Besides, the boss can fire but it can only move up and down and it will not be deleted until the user kills it.
Enemy2(Enemy1)	"Treant"	
Boss(Enemy1)	"Dragon"	
Background()	control scale of background image	
Weapon()	Isaac's boomerang	Weapon and weapon2 are created by the input of key(W, A, S, D) and can only have 30 bullets in the screen.
Weapon2(Weapon)	Thorsten's boomerang	
Weapon3(weapon)	Dragon' flame	
Time()	Running time of game	

5. Sound Effect

All of place require a sound effect are be provided.

Sound effect name:	Description:
bgm.mp3	System play background when the game begins.
boom.wav	When the weapon attacks the monster
hurt.wav	When a hero is attacked
fail.wav	When lost the game
change.wav	change hero
win.wav	When win the game
button.wav	change the screen
monster.wav	dragon display
tree.wav	Trean