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Simplest RPG, in Python | Freedom Embedded

5-6 minutes

This is a small text-based Role-Playing Game that I wrote while learning Python. The game is the simplest RPG adventure I could think of, that maintains the essential traits of the classics.

The more I dive into Python the more I understand the work done to create a language that is easy by design. I tried to apply some non-trivial functionalities such as:

I think that this game can be a clean example to understand how to apply these aspects in a Python program.

```
1  from random import randint
2  class Character:
3      def __init__(self):
4          self.name = ""
5          self.health = 1
6          self.health_max = 1
7      def do_damage(self, enemy):
8          damage = min(
9              max(randint(0, self.health) -
```

```
10 randint(0, enemy.health), 0),
11         enemy.health)
12     enemy.health = enemy.health - damage
13     if damage == 0: print "%s evades %s's
14 attack." % (enemy.name, self.name)
15     else: print "%s hurts %s!" % (self.name,
16 enemy.name)
17     return enemy.health <= 0
18 class Enemy(Character):
19     def __init__(self, player):
20         Character.__init__(self)
21         self.name = 'a goblin'
22         self.health = randint(1, player.health)
23 class Player(Character):
24     def __init__(self):
25         Character.__init__(self)
26         self.state = 'normal'
27         self.health = 10
28         self.health_max = 10
29     def quit(self):
30         print "%s can't find the way back home,
31 and dies of starvation.\nR.I.P." % self.name
```

```
32     self.health = 0
33     def help(self): print Commands.keys()
34     def status(self): print "%s's health: %d/%d" %
35 (self.name, self.health, self.health_max)
36     def tired(self):
37         print "%s feels tired." % self.name
38         self.health = max(1, self.health - 1)
39     def rest(self):
40         if self.state != 'normal': print "%s can't
41 rest now!" % self.name; self.enemy_attacks()
42     else:
43         print "%s rests." % self.name
44         if randint(0, 1):
45             self.enemy = Enemy(self)
46             print "%s is rudely awakened by %s!" %
47 (self.name, self.enemy.name)
48             self.state = 'fight'
49             self.enemy_attacks()
50     else:
51         if self.health < self.health_max:
52             self.health = self.health + 1
53         else: print "%s slept too much." %
```

```
54 self.name; self.health = self.health - 1
55     def explore(self):
56         if self.state != 'normal':
57             print "%s is too busy right now!" %
58 self.name
59             self.enemy_attacks()
60         else:
61             print "%s explores a twisty passage." %
62 self.name
63             if randint(0, 1):
64                 self.enemy = Enemy(self)
65                 print "%s encounters %s!" % (self.name,
66 self.enemy.name)
67                 self.state = 'fight'
68             else:
69                 if randint(0, 1): self.tired()
70     def flee(self):
71         if self.state != 'fight': print "%s runs in
72 circles for a while." % self.name; self.tired()
73         else:
74             if randint(1, self.health + 5) >
75 randint(1, self.enemy.health):
76                 print "%s flees from %s." % (self.name,
```

```
76 self.enemy.name)
77         self.enemy = None
78         self.state = 'normal'
79         else: print "%s couldn't escape from
80 %s!" % (self.name, self.enemy.name);
81 self.enemy_attacks()
82     def attack(self):
83         if self.state != 'fight': print "%s swats
84 the air, without notable results." % self.name;
85 self.tired()
86         else:
87             if self.do_damage(self.enemy):
88                 print "%s executes %s!" % (self.name,
89 self.enemy.name)
90                 self.enemy = None
91                 self.state = 'normal'
92                 if randint(0, self.health) < 10:
93                     self.health = self.health + 1
94                     self.health_max = self.health_max + 1
95                     print "%s feels stronger!" % self.name
96                 else: self.enemy_attacks()
97     def enemy_attacks(self):
98         if self.enemy.do_damage(self): print "%s
```

```
98 was slaughtered by %s!!!\nR.I.P." %(self.name,
99 self.enemy.name)

100 Commands = {
101     'quit': Player.quit,
102     'help': Player.help,
103     'status': Player.status,
104     'rest': Player.rest,
105     'explore': Player.explore,
106     'flee': Player.flee,
107     'attack': Player.attack,
108     }
109 p = Player()
110 p.name = raw_input("What is your character's
111 name? ")
112 print "(type help to get a list of actions)\n"
113 print "%s enters a dark cave, searching for
114 adventure." % p.name
115 while(p.health > 0):
116     line = raw_input("> ")
117     args = line.split()
118     if len(args) > 0:
119         commandFound = False
```

```
120     for c in Commands.keys():
121         if args[0] == c[:len(args[0])]:
122             Commands[c](p)
123             commandFound = True
124             break
125     if not commandFound:
126         print "%s doesn't understand the
127 suggestion." % p.name
```