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|0 |1 |2 |3 |4 |5 |6 |7 |8
1  #!/usr/bin/python
2  # Snake Heart
3  # Code Angel
4
5  import sys
6  import os
7  import pygame
8  from pygame.locals import *
9
10 import screen
11 import player_class
12 import monster
13 import map_class
14 import utils
15
16
17 # Setup
18 os.environ['SDL_VIDEO_CENTERED'] = '1'
19 pygame.mixer.pre_init(44100, -16, 2, 512)
20 pygame.mixer.init()
21 pygame.init()
22 display = screen.Display()
23 pygame.key.set_repeat(10, 20)
24 clock = pygame.time.Clock()
25 font = pygame.font.SysFont('Helvetica', 16)
26
27
28 def main():
29
30     # Create the player object
31     lucy = player_class.Player()
32
33     # Create the map object
34     game_map = map_class.Map()
35
36     # Get the level and load the correct map
37     game_map.level = utils.intro(display)
38     game_map.load_map()
39
40     # Display game instructions
41     utils.instructions(display)
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42 |0 |1 |2 |3 |4 |5 |6 |7 |8
43     # Monster lists
44     bumblers = []
45     whizzers = []
46     boxers = []
47
48     # Set up number of each monster to be spawned based on the current level
49     bumblers_spawn_start = 0
50     whizzers_spawn_start = 0
51     boxers_spawn_start = 0
52
53     if game_map.level == 1:
54         bumblers_spawn_start = 50
55         whizzers_spawn_start = 50
56         boxers_spawn_start = 50
57     elif game_map.level == 2:
58         bumblers_spawn_start = 150
59         whizzers_spawn_start = 75
60         boxers_spawn_start = 100
61
62     # Spawn Bumblers
63     for bumbler_count in range(bumblers_spawn_start):
64         bumbler = monster.Bumbler(game_map.level)
65         bumbler.spawn_location(game_map)
66         bumblers.append(bumbler)
67
68     # Spawn Whizzers
69     for whizzer_count in range(whizzers_spawn_start):
70         whizzer = monster.Whizzer(game_map.level)
71         whizzer.spawn_location(game_map)
72         whizzers.append(whizzer)
73
74     # Spawn Boxers
75     for boxer_count in range(boxers_spawn_start):
76         boxer = monster.Boxer(game_map.level)
77         boxer.spawn_location(game_map)
78         boxers.append(boxer)
79
80     # Main game loop
81     while True:
82

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83 |0 |1 |2 |3 |4 |5 |6 |7 |8
84     for event in pygame.event.get():
85
86         # Only allow keypress if lucy is not digging, alive and not game over
87         if (lucy.dig_timer == 0 and
88             lucy.alive is True and
89             lucy.game_over_win is False and
90             lucy.game_over_lose is False):
91
92             if key_pressed[pygame.K_LEFT]:
93                 lucy.set_direction('left')
94                 game_map.scroll('right')
95
96             elif key_pressed[pygame.K_RIGHT]:
97                 lucy.set_direction('right')
98                 game_map.scroll('left')
99
100            elif key_pressed[pygame.K_UP]:
101                lucy.set_direction('up')
102                game_map.scroll('down')
103
104            elif key_pressed[pygame.K_DOWN]:
105                lucy.set_direction('down')
106                game_map.scroll('up')
107
108            else:
109                lucy.set_direction('none')
110
111            if key_pressed[pygame.K_SPACE]:
112                lucy.start_digging()
113
114        else:
115            lucy.set_direction('none')
116
117        if key_pressed[pygame.K_RETURN] and lucy.game_over_win is True:
118            main()
119
120        if key_pressed[pygame.K_RETURN] and lucy.game_over_lose is True:
121            main()
122
123        if event.type == QUIT:

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124         pygame.quit()
125         sys.exit()
126
127     # Move all the Bumpers, removing any that fall into a hole
128     for bumper in bumpers:
129         bumper.move(game_map)
130
131         if bumper.alive is False:
132             bumpers.remove(bumper)
133
134     # Move all the Whizzers, removing any that fall into a hole
135     for whizzer in whizzers:
136         whizzer.move(game_map)
137
138         if whizzer.alive is False:
139             whizzers.remove(whizzer)
140
141     # Move all the Boxers, removing any that fall into a hole
142     for boxer in boxers:
143         boxer.move(game_map)
144
145         if boxer.alive is False:
146             boxers.remove(boxer)
147
148     # If Lucy is digging, update the timer
149     if lucy.dig_timer > 0:
150         lucy.dig(game_map)
151
152     # If Lucy is a skeleton, update the timer
153     if lucy.alive is False:
154         lucy.skeleton(game_map)
155
156     game_map.reset_change()
157
158     # Draw the map, Lucy and any monsters
159     game_map.draw(display)
160     lucy.draw(display)
161
162     for bumper in bumpers:
163         bumper.draw(display)
164

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165     for whizzer in whizzers:
166         whizzer.draw(display)
167
168     for boxer in boxers:
169         boxer.draw(display)
170
171     # Check if Lucy has touched any items (extra lives, spades, portal, gold, sword, water, castle)
172     game_map.check_player_loc(lucy)
173
174     # If the player has teleported, the relative location of the monsters on the map must be updated
175     if game_map.portal is True:
176         for bumbler in bumblers:
177             bumbler.portal(game_map.d_portal_x, game_map.d_portal_y)
178
179         for whizzer in whizzers:
180             whizzer.portal(game_map.d_portal_x, game_map.d_portal_y)
181
182         for boxer in boxers:
183             boxer.portal(game_map.d_portal_x, game_map.d_portal_y)
184
185         game_map.portal = False
186
187     # Check if Lucy has collided with any monsters
188     for bumbler in bumblers:
189         lucy.check_collision(bumbler)
190
191     for whizzer in whizzers:
192         lucy.check_collision(whizzer)
193
194     for boxer in boxers:
195         lucy.check_collision(boxer)
196
197     # Potentially spawn new monsters
198     monster.Bumbler.spawn(bumblers, game_map)
199     monster.Whizzer.spawn(whizzers, game_map)
200     monster.Boxer.spawn(boxers, game_map)
201
202     # Display scoreboard
203     utils.display_scoreboard(display, font, lucy.gold, lucy.lives, lucy.spades, lucy.sword)
204
205     if lucy.game_over_lose is True:

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206         |0 |1 |2 |3 |4 |5 |6 |7 |8
        display.show_image(display.game_over_lose_image, 110, 380)
207
208         if lucy.game_over_win is True:
209             display.show_image(display.game_over_win_image, 50, 380)
210
211         pygame.display.update()
212         clock.tick(30)
213
214     if __name__ == '__main__':
215         main()
216

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