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1  /*
2
3  The Game Project
4
5  2 - Game character
6
7  Use p5 drawing functions such as rect, ellipse, line, triangle and
8  point to draw the different states of your game character.
9
10 Write the code so that your character appears inside the box for each
11 state.
12
13 IMPORTANT: For each box the variables gameChar_x & gameChar_y are set to the bottom
14 center of the box. You must combine these variables with arithmetic to
15 determine the position of each shape that you draw. This will later allow
16 you to adjust the position of your game character.
17
18 Each state is worth two marks:
19
20 //standing front facing = 2
21 //jumping facing forwards = 2
22 //walking left = 2
23 //walking right = 2
24 //jumping left and jumping right = 2
25
26 0 marks = not a reasonable attempt
27 1 mark = attempted but it lacks detail and you didn't use gameChar_x and gameChar_y
  correctly
28 2 marks = you've used a selection of shape functions and made consistent use of
  gameChar_x and gameChar_y
29
30 WARNING: Do not get too carried away. If you're character takes more than 5 lines
31 of code to draw then you've probably over done it.
32
33 ** Only submit your sketch.js **
34
35 */
36
37 var gameChar_x = 0;
38 var gameChar_y = 0;
39
40 function setup()
41 {
42     createCanvas(400, 600);
43 }
44
45 function draw()
46 {
47     background(255);
48
49     //Standing, facing frontwards
50
51     stroke(100);
52     noFill();
53     rect(20, 60, 50, 80);
54     noStroke();
55     fill(0);
56     text("1. standing front facing", 20, 160);
57
58     gameChar_x = 45;
59     gameChar_y = 137;
60     //Add your code here ...
61
62     //begin character drawing
63
64     //body
65     stroke(0);
66     fill(153, 51, 47);
67     triangle(gameChar_x - 13, gameChar_y - 7, gameChar_x + 13, gameChar_y - 7,

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68     gameChar_x, gameChar_y - 64);
69     //feet
70     fill(71, 43, 12);
71     ellipse(gameChar_x - 13, gameChar_y - 7, 20); //left
72     ellipse(gameChar_x + 13, gameChar_y - 7, 20); //right
73
74     //head
75     fill(235, 152, 181);
76     ellipse(gameChar_x, gameChar_y - 52, 30);
77
78     //mouth
79     fill(0);
80     ellipse(gameChar_x, gameChar_y - 44, 5);
81
82     //left eye
83     line(gameChar_x - 10, gameChar_y - 52, gameChar_x - 7, gameChar_y - 55);
84     line(gameChar_x - 4, gameChar_y - 52, gameChar_x - 7, gameChar_y - 55);
85
86     //right eye
87     line(gameChar_x + 10, gameChar_y - 52, gameChar_x + 7, gameChar_y - 55);
88     line(gameChar_x + 4, gameChar_y - 52, gameChar_x + 7, gameChar_y - 55);
89
90     //end character drawing
91
92     //Jumping facing forwards
93     stroke(100);
94     noFill();
95     rect(220, 60, 50, 80);
96     noStroke();
97     fill(0);
98     text("2. jumping facing forwards", 220, 160);
99
100    gameChar_x = 245;
101    gameChar_y = 137;
102    //Add your code here ...
103
104    //begin character drawing
105
106    gameChar_y -=7;
107
108    //body
109    stroke(0);
110    fill(153, 51, 47);
111    triangle(gameChar_x - 13, gameChar_y - 7 - 5, gameChar_x + 13, gameChar_y - 7,
gameChar_x, gameChar_y - 64);
112
113    //feet
114    fill(71, 43, 12);
115    ellipse(gameChar_x - 13, gameChar_y - 7 - 5, 20); //left
116    ellipse(gameChar_x + 13, gameChar_y - 7, 20); //right
117
118    //head
119    fill(235, 152, 181);
120    ellipse(gameChar_x, gameChar_y - 52, 30);
121
122    //mouth
123    fill(0);
124    ellipse(gameChar_x, gameChar_y - 44, 5 - 4);
125
126    //left eye
127    line(gameChar_x - 10, gameChar_y - 6 - 52, gameChar_x - 7, gameChar_y - 55);
128    line(gameChar_x - 4, gameChar_y - 6 - 52, gameChar_x - 7, gameChar_y - 55);
129
130    //right eye
131    line(gameChar_x + 10, gameChar_y - 6 - 52, gameChar_x + 7, gameChar_y - 55);
132    line(gameChar_x + 4, gameChar_y - 6 - 52, gameChar_x + 7, gameChar_y - 55);
133
134    //end character drawing

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135
136 //Walking, turned left
137 stroke(100);
138 noFill();
139 rect(20, 260, 50, 80);
140 noStroke();
141 fill(0);
142 text("3. Walking left", 20, 360);
143
144 gameChar_x = 45;
145 gameChar_y = 337;
146 //Add your code here ...
147
148 //begin character drawing
149
150 //body
151 stroke(0);
152 fill(153, 51, 47);
153 triangle(gameChar_x - 13, gameChar_y - 7 - 10, gameChar_x + 13, gameChar_y - 7,
gameChar_x, gameChar_y - 64);
154
155 //feet
156 fill(71, 43, 12);
157 ellipse(gameChar_x - 13, gameChar_y - 7 - 10, 20); //left
158 ellipse(gameChar_x + 13, gameChar_y - 7, 20); //right
159
160 //head
161 fill(235, 152, 181);
162 ellipse(gameChar_x, gameChar_y - 52, 30);
163
164 //mouth
165 fill(0);
166 ellipse(gameChar_x, gameChar_y - 44, 5 - 2);
167
168 //left eye
169 line(gameChar_x - 10 + 6, gameChar_y - 52 - 6, gameChar_x - 7, gameChar_y - 55);
170 line(gameChar_x - 4, gameChar_y - 52, gameChar_x - 7, gameChar_y - 55);
171
172 //right eye
173 line(gameChar_x + 10, gameChar_y - 52, gameChar_x + 7, gameChar_y - 55);
174 line(gameChar_x + 4 + 6, gameChar_y - 52 - 6, gameChar_x + 7, gameChar_y - 55);
175
176 //end character drawing
177
178 //Walking, turned right
179 stroke(100);
180 noFill();
181 rect(220, 260, 50, 80);
182 noStroke();
183 fill(0);
184 text("4. Walking right", 220, 360);
185
186 gameChar_x = 245;
187 gameChar_y = 337;
188 //Add your code here ...
189
190 //begin character drawing
191
192 //body
193 stroke(0);
194 fill(153, 51, 47);
195 triangle(gameChar_x - 13, gameChar_y - 7, gameChar_x + 13, gameChar_y - 7 - 10,
gameChar_x, gameChar_y - 64);
196
197 //feet
198 fill(71, 43, 12);
199 ellipse(gameChar_x - 13, gameChar_y - 7, 20); //left
200 ellipse(gameChar_x + 13, gameChar_y - 7 - 10, 20); //right
201

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202 //head
203 fill(235, 152, 181);
204 ellipse(gameChar_x, gameChar_y - 52, 30);
205
206 //mouth
207 fill(0);
208 ellipse(gameChar_x, gameChar_y - 44, 5 - 2);
209
210 //left eye
211 line(gameChar_x - 10, gameChar_y - 52, gameChar_x - 7, gameChar_y - 55);
212 line(gameChar_x - 4 - 6, gameChar_y - 52 - 6, gameChar_x - 7, gameChar_y - 55);
213
214 //right eye
215 line(gameChar_x + 10 - 6, gameChar_y - 52 - 6, gameChar_x + 7, gameChar_y - 55);
216 line(gameChar_x + 4, gameChar_y - 52, gameChar_x + 7, gameChar_y - 55);
217
218 //end character drawing
219
220 //Jumping right
221 stroke(100);
222 noFill();
223 rect(20, 460, 50, 80);
224 noStroke();
225 fill(0);
226 text("5. Jumping to the right", 20, 560);
227
228 gameChar_x = 45;
229 gameChar_y = 537;
230 //Add your code here ...
231
232 //begin character drawing
233
234 gameChar_y -= 7;
235 //body
236 stroke(0);
237 fill(153, 51, 47);
238 triangle(gameChar_x - 13, gameChar_y - 7, gameChar_x + 13, gameChar_y - 7 - 10,
gameChar_x + 8, gameChar_y - 64);
239
240 //feet
241 fill(71, 43, 12);
242 ellipse(gameChar_x - 13, gameChar_y - 7, 20); //left
243 ellipse(gameChar_x + 13, gameChar_y - 7 - 10, 20); //right
244
245 //head
246 gameChar_x += 8;
247 fill(235, 152, 181);
248 ellipse(gameChar_x, gameChar_y - 52, 30);
249
250 //mouth
251 fill(0);
252 ellipse(gameChar_x, gameChar_y - 44, 5 - 4);
253
254 //left eye
255 line(gameChar_x - 10 + 6, gameChar_y - 52 - 6, gameChar_x - 7, gameChar_y - 55);
256 line(gameChar_x - 4 - 6, gameChar_y - 52 - 6, gameChar_x - 7, gameChar_y - 55);
257
258 //right eye
259 line(gameChar_x + 10 - 6, gameChar_y - 52 - 6, gameChar_x + 7, gameChar_y - 55);
260 line(gameChar_x + 4 + 6, gameChar_y - 52 - 6, gameChar_x + 7, gameChar_y - 55);
261
262 //end character drawing
263
264 //Jumping to the left
265 stroke(100);
266 noFill();
267 rect(220, 460, 50, 80);
268 noStroke();
269 fill(0);

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270     text("6. Jumping to the left", 220, 560);
271
272     gameChar_x = 245;
273     gameChar_y = 537;
274     //Add your code here ...
275
276     //begin character drawing
277
278     //body
279     gameChar_y -=7;
280     stroke(0);
281     fill(153, 51, 47);
282     triangle(gameChar_x - 13, gameChar_y - 7 - 10, gameChar_x + 13, gameChar_y - 7,
gameChar_x - 8, gameChar_y - 64);
283
284     //feet
285     fill(71, 43, 12);
286     ellipse(gameChar_x - 13, gameChar_y - 7 - 10, 20); //left
287     ellipse(gameChar_x + 13, gameChar_y - 7, 20); //right
288
289     //head
290     gameChar_x -=8;
291     fill(235, 152, 181);
292     ellipse(gameChar_x, gameChar_y - 52, 30);
293
294     //mouth
295     fill(0);
296     ellipse(gameChar_x, gameChar_y - 44, 5 - 4);
297
298     //left eye
299     line(gameChar_x - 10 + 6, gameChar_y - 52 - 6, gameChar_x - 7, gameChar_y - 55);
300     line(gameChar_x - 4 - 6, gameChar_y - 52 - 6, gameChar_x - 7, gameChar_y - 55);
301
302     //right eye
303     line(gameChar_x + 10 - 6, gameChar_y - 52 - 6, gameChar_x + 7, gameChar_y - 55);
304     line(gameChar_x + 4 + 6, gameChar_y - 52 - 6, gameChar_x + 7, gameChar_y - 55);
305
306     //end character drawing
307
308 }
309
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