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1: /**
2:  * main.cpp - testing out sfml, making them move and using the window
3:  *
4:  * Date 1/19/22 - 1/24/22
5:  *
6:  * Created by: Anson Cheang
7:  *
8:  */
9:
10: #include <SFML/Graphics.hpp>
11:
12: int main()
13: {
14:     float Gx = 10.f, Gy = 10.f;
15:     sf::RenderWindow window(sf::VideoMode(900, 800), "Hello World!");
16:
17:     window.setVerticalSyncEnabled(true);
18:     window.setFramerateLimit(15);
19:
20:     sf::CircleShape shape(100.f);
21:     shape.setFillColor(sf::Color::Green);
22:
23:     sf::Texture texture;
24:     if(!texture.loadFromFile("sprite.png"))
25:     {
26:         return EXIT_FAILURE;
27:     }
28:     sf::Sprite sprite(texture);
29:
30:     sprite.setScale(sf::Vector2f(.3, .3));
31:
32:     while (window.isOpen())
33:     {
34:         sf::Event event;
35:         while (window.pollEvent(event))
36:         {
37:             if (event.type == sf::Event::Closed)
38:                 window.close();
39:         }
40:
41:         shape.move(Gx, Gy);
42:         if(shape.getPosition().x >= 600.f)
43:         {
44:             Gx = -10.f;
45:             Gy = -10.f;
46:         }
47:         else if (shape.getPosition().x <= 0.f)
48:         {
49:             Gx = 10.f;
50:             Gy = 10.f;
51:         }
52:
53:         if(sf::Keyboard::isKeyPressed(sf::Keyboard::Left) && spr
te.getPosition().x > 0.f)
54:         {
55:             sprite.move(-10.f, 0.f);
56:         }
57:         if(sf::Keyboard::isKeyPressed(sf::Keyboard::Right) && spr
ite.getPosition().x < 600.f)
58:         {
59:             sprite.move(10.f, 0.f);
60:         }
61:         if(sf::Keyboard::isKeyPressed(sf::Keyboard::Down) && spr
ite.getPosition().y < 600.f)
62:         {
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63:             sprite.move(0.f, 10.f);
64:         }
65:         if(sf::Keyboard::isKeyPressed(sf::Keyboard::Up) && sprite
.getPosition().y > 0.f)
66:         {
67:             sprite.move(0.f, -10.f);
68:         }
69:         if (sf::Keyboard::isKeyPressed(sf::Keyboard::Space))
70:         {
71:             sprite.rotate(90);
72:         }
73:         if (sf::Keyboard::isKeyPressed(sf::Keyboard::F))
74:         {
75:             sprite.setScale(sf::Vector2f(.3, -.3));
76:         }
77:         if (sf::Keyboard::isKeyPressed(sf::Keyboard::R))
78:         {
79:             sprite.setScale(sf::Vector2f(.3, .3));
80:         }
81:
82:         window.clear();
83:         window.draw(shape);
84:         window.draw(sprite);
85:         window.display();
86:     }
87:
88:     return 0;
89: }
```