```cpp
1  #include <SDL.h>
2  #include <random>
3
4  int main(int argc, char* argv[]) {
5      bool is_running = true;
6      int r, g, b, a;
7
8      //Init SDL subsystems, window and renderer.
9      SDL_Init(SDL_INIT_EVERYTHING);
10     SDL_Window* window = SDL_CreateWindow("Task 12 — SDL2 Concepts, Thomas ⮡
         Horsley 103071494",
11         SDL_WINDOWPOS_CENTERED, SDL_WINDOWPOS_CENTERED, 600, 800,         ⮡
             SDL_WINDOW_SHOWN);
12     SDL_Renderer* renderer = SDL_CreateRenderer(window, -1, 0);
13
14
15     //  Set window color to green initially
16     SDL_SetRenderDrawColor(renderer, 0, 255, 0, 255);
17     SDL_RenderClear(renderer);
18     SDL_RenderPresent(renderer);
19
20     while (is_running) {
21         SDL_Event event;
22         const Uint8* keystates = SDL_GetKeyboardState(NULL);
23
24         while (SDL_PollEvent(&event)) {
25             if (event.type == SDL_QUIT) { is_running = false; }
26             if (keystates[SDL_SCANCODE_Q]) { is_running = false; }
27
28             if (keystates[SDL_SCANCODE_R]) {
29                 r = std::rand() % 255;
30                 g = std::rand() % 255;
31                 b = std::rand() % 255;
32                 a = 128 + (std::rand() % 128);
33
34                 SDL_SetRenderDrawColor(renderer, r, g, b, a);
35                 SDL_RenderClear(renderer);
36                 SDL_RenderPresent(renderer);
37             }
38         }
39     }
40
41     SDL_DestroyRenderer(renderer);
42     SDL_DestroyWindow(window);
43     return 0;
44 }
```