Week 8 Lab

Using `libsdl`

Task 1. Drawing to the screen

Study the example code provided in `hello-pixel.c` and modify it to create a program called `drawbox` that draws a square black box on the screen. The side length of the box (in pixels) should be specified as the first command-line argument.

Task 2. Responding to the keyboard

Modify your Task 1 program (or create a new one) that displays the box and also responds to keyboard events. When a key is pressed (any key will do), move the box to the right 10 pixels. The example code in `hello-events.c` might help you with this.

Task 3. Combining graphics and events

Modify your Task 2 program (or create a new one) so that it responds differently to different keyboard events:

- When the 'a' key is pressed, move the box to the left.
- When the 'd' key is pressed, move the box to the right.

Don't leave a trail where the box has been!

Task 4. Working with timers

Take your code from Task 1 and create another version. In this one, the box starts at the top of the window, but every 0.5 seconds it moves down 10 pixels. When the box reaches the bottom, delete it and move it to the top again.

Write a new program in which the box drops vertically, but its horizontal position is determined by keyboard presses. You can use the code you wrote in Tasks 3 and 4 for this.

Task 5. Setting colours

Modify the code to make the box blue and the background red.