

PRACTICE EXERCISES - LAB 7 (Files/Graphics)

1. Modify the original bar graph program so that once the bar graph is displayed, your program waits for the user to click the mouse on or above one of the bars. Depending on the location clicked, display the corresponding month and temperature in the console window. Allow the user to click 5 times.

HINT 1: Create another array with the names of the months so you can easily print out the correct one without using 12 if statements. Remember to put the names of the months in quotation marks, e.g. "Jan", since these are strings, not numerical values.

HINT 2: Then use the `win.getMouse()` function to get the point where the user clicks. Use the `getX` function to get the x position of the user's click. The index of the month picked is $x/25$ since each bar is 25 pixels wide. The user does not have to click on the bar itself; the user can click anywhere in the vertical region in or above that bar.

2. Write a Python program that reads the same temperature values from a file and stores these temperature values in a list. Then create a window that is 200 pixels wide by 300 pixels high. In this window, draw a bar graph that shows these temperatures from January at the top to December at the bottom. The left edge of the window represents 0 degrees and the right edge of the window represents 100 degrees. Each bar should be 25 pixels high. The width of each bar depends on the temperature for each month. The colors of the bars should alternate between green and yellow. Each bar should include text that displays the temperature for that month, centered along the bar. See the sample picture as a guide.

