**Lab 4.3**

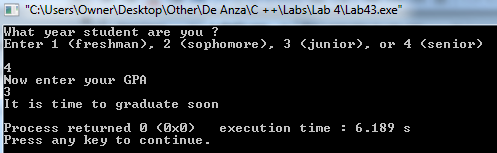
***How could you rewrite gpa >= 2.0 in the first if statement using the NOT operator?***

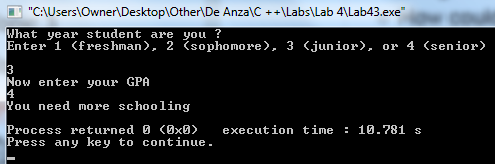
if (!(gpa < 2.0) && year == '4')

***Could you replace year !='4' in the else if statement with year < 4 or year <= 3? Why or why not?***

Well, '4' is not the same as 4. '4' is a character. So if we replace !='4' with either < 4 or < = 3 then we would be switching a character with a float number (in this case). So the answer is no. If however the question was written to mean to replace !='4' with < '4' or <= '3' then the answer is yes. That would be a nice replacement. In fact, <'4' and <= '3' work much better than !='4', because this last one admits a result above 5 (because 5 is not equal to 4), whereas < '4' and <= '3' do not.

***Take a screen shot of the output.***



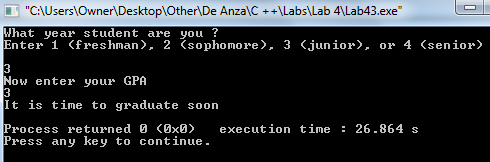


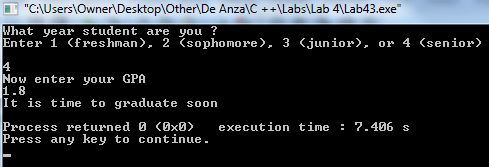
***if you replace***

***if ( gpa >= 2.0 && year == '4') with if ( gpa >= 2.0 || year == '4') and replace else if ( year != '4'|| gpa < 2.0) with else if ( year != '4' && gpa < 2.0) which students will graduate and which will not graduate according to this new program? Does this handle all cases (i.e., all combinations of year and gpa)?***

The students that would graduate would be either those that have either a gpa above 2.0 (even if they're in their first year), or have been in school for 4 years (even if their GPA below 2.0). Those who have neither wouldn't graduate. And yes, it does handle all cases.

***Take a screen shot of the output. Insert it in LastFirst\_lab43.doc.***





***Could you replace else if ( year != '4'|| gpa < 2.0) with the single word else?***

If I remove the expression ***else if ( year != '4'|| gpa < 2.0)*** and replace it for ***else***, this would be a good replacement (it works fine). So I replaced:

***else if ( year != '4' && gpa < 2.0)***

***cout << "You need more schooling" << endl;***

with

***else***

***cout << "You need more schooling" << endl;***

and it works perfectly fine.

***Take a screen shot of the output. Insert it in LastFirst\_lab43.doc.***

