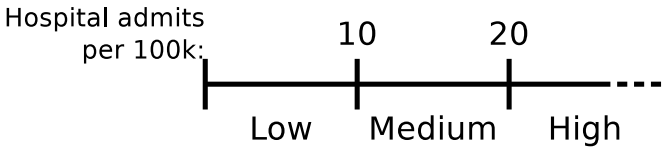
Lab 2
Conditionals

30 January 2025

The preview for this lab is below. Come to lab on Thursday either with it completed or with a specific written question in your notebook identifying which preview step you got to and what about it you're stuck on.

For this problem, we'll use a slightly abridged version of the standards the CDC developed on how to determine a community's Covid-19 level. There are three relevant values: the "case rate" and the "hospital admissions", both of which are measurements taken and reported for a specific community, and the "community level", which is one of "low", "medium", or "high" and is what you're trying to compute.

If the case rate is otherwise low (below 200 per 100k per week), the community level is driven by how many cases are significant enough to require hospitalisation, on the following scale:



You'll write a program to compute this.

1. First, open up the codeboard assignment "Lab 2 "Covid levels" (preview)". Write code to read in a hospitalisation rate (which will be a number, possibly with a decimal, which you'll interpret as the rate per 100,000 residents in one week—that is, a number on the scale illustrated above). No need to print a prompt here—and if you do it'll mess up my test cases!

2. Try compiling your program if you haven't already. In general, you should compile your program as often as you can, after every couple lines you write. It doesn't *do* anything yet, but if it doesn't even compile, there's only a few places to look at to detect errors.

3. Below the input statements, write an `if` statement that will print "Low" if the hospitalisation rate is below 10.0.

4. Compile it again, and this time try running it—it should print a response in at least some situations. (I won't keep inserting these compile-it-and-run instructions but you should keep doing so, frequently.) If think you've got that much working, click Submit!
5. Now use `else if` to print "Medium" when that classification applies.
6. Finally, use plain `else` to print "High" as appropriate.
7. Did you remember to put your name and a brief description after the `//` at the top of the program?
8. If you think it's correct, or even if you're not totally sure but it's at least compiling and running, click Submit.
9. If any of the cases are failing, try to identify and fix the problem, and then click Submit again.

Remember to "Save changes" when you submit or any time you're about to close the window! And click Submit when you've done some reasonable chunk.

Also: make sure you're set to connect to the department servers using PuTTY or `ssh` from your laptop—you've done this a few times in CMSC 161 and we'll start making use of it in our class during this lab! If you have any written notes from 161 on how to do things, *bring them* because you will need to refer to them.

This document was written and prepared without the use of generative AI.