

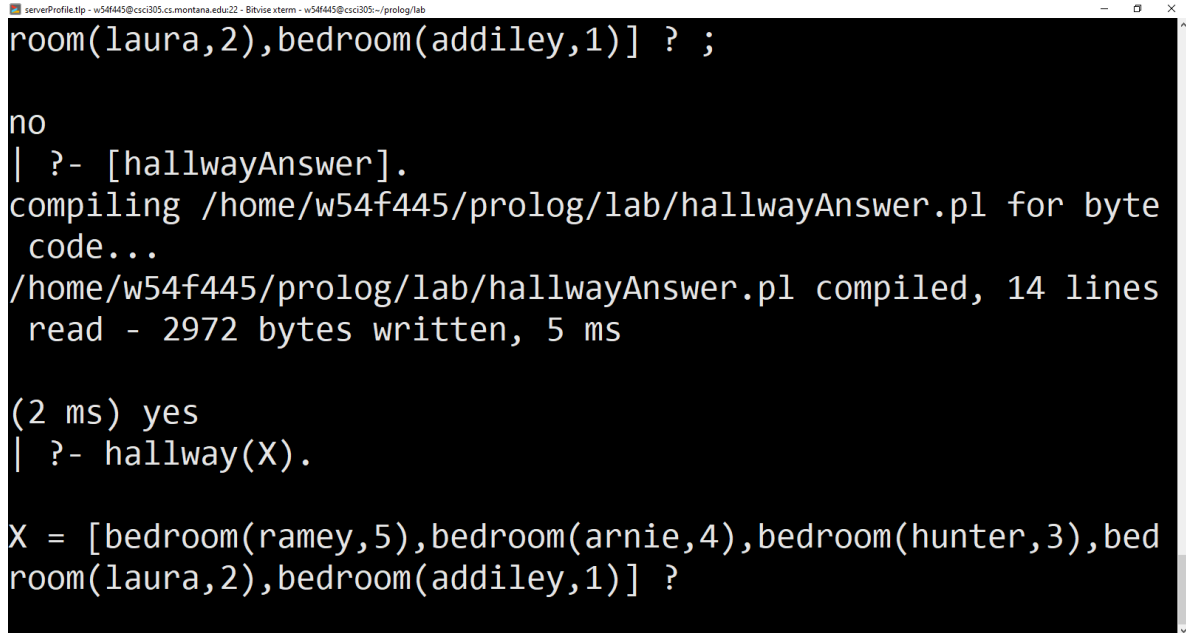
Hunter, Laura, Addiley , Ramey, and Arnie all live in the same dorm with five adjacent bedrooms. Hunter doesn't sleep in the 5th bedroom and Laura doesn't sleep in the first bedroom. Arnie doesn't sleep in the first or last bedroom, and he is not in an bedroom adjacent to Addiley or Laura. Ramey sleeps in some bedroom higher than Laura's. Who sleeps in which bedrooms?

Write a Prolog program to solve this problem.

Define what adjacency is, then what the bedrooms are, and then create a layout(X) that allows you to put in all the rules. Very similar to the logic puzzle examples I did in class.

Due Friday November 1stWow we are in November already.

Output answer that mine outputs looks like this:

A screenshot of a Prolog interpreter window. The window title bar shows the path: `serveProfile.tlp - w54f445@cs305.cs.montana.edu22 - Bitwise xterm - w54f445@cs305:~/prolog/lab`. The terminal content shows a query `room(laura,2),bedroom(addiley,1)] ? ;` which returns `no`. Then a query `| ?- [hallwayAnswer].` is entered, followed by compilation of `/home/w54f445/prolog/lab/hallwayAnswer.pl`. After compilation, the query `| ?- hallway(X).` is entered, returning `(2 ms) yes`. The final output is `X = [bedroom(ramey,5),bedroom(arnie,4),bedroom(hunter,3),bedroom(laura,2),bedroom(addiley,1)] ?`.

```
room(laura,2),bedroom(addiley,1)] ? ;
no
| ?- [hallwayAnswer].
compiling /home/w54f445/prolog/lab/hallwayAnswer.pl for byte
code...
/home/w54f445/prolog/lab/hallwayAnswer.pl compiled, 14 lines
read - 2972 bytes written, 5 ms

(2 ms) yes
| ?- hallway(X).

X = [bedroom(ramey,5),bedroom(arnie,4),bedroom(hunter,3),bed
room(laura,2),bedroom(addiley,1)] ?
```

Each person is put into a bedroom that doesn't break any of the rules given.