CS-431 Programming Languages Lab Project Report

LAB ASSIGNMENT - 2

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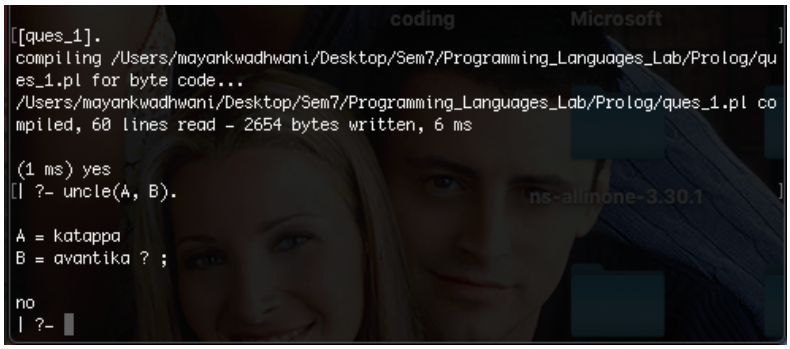
NOTE :- We run the following commands after downloading and starting prolog in the terminal

QUESTION 1 Finding Relationships and Gender

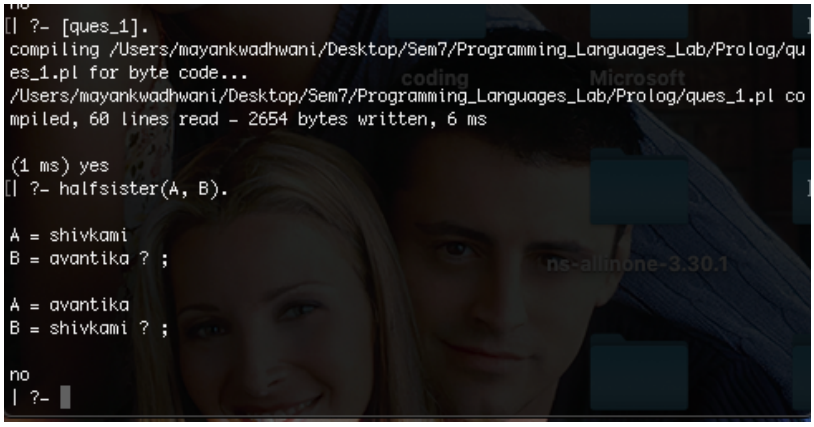
UNCLE

a) *[ques_1].*
b) *uncle(A, B).*



HALF SISTER

a) *[ques_1].*
b) *halfsister(A, B).*



QUESTION 2 Bus travel Planner

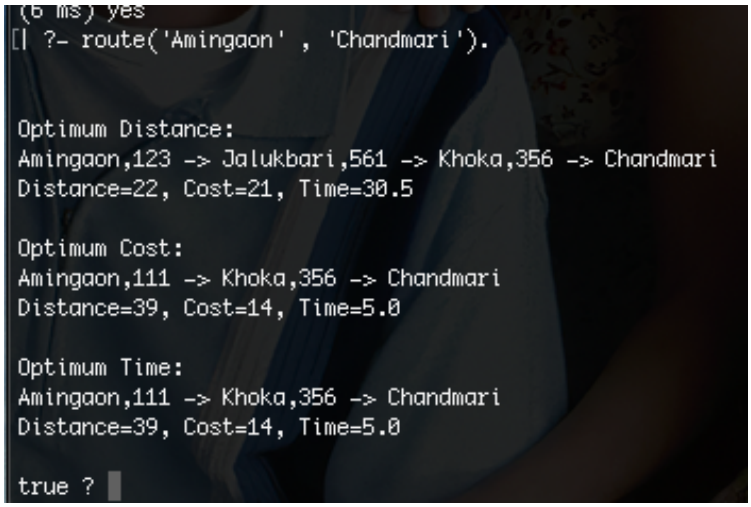
NOTE: We have in our program taken into account the time between the buses also. So like if I reach Khoka at 16 (4:00 PM) and the next bus we have to take has a departure time 13 (1:00 PM), this would mean that we will wait for this entire day and leave tomorrow at 1:00 PM.

Moreover we have also taken into consideration that the buses can take longer to arrive that is, if the bus's arrival time is less than the departure time, this means that the bus will depart today but will reach tomorrow.

So the above 2 cases have been handled by our program.

Running the program

a) *[ques_2].*
b) *route('Amingaon' , 'Chandmari').*



QUESTION 3 Prisoner Escape Problem

Running the program

a) *[ques_3].*
b) *all_possible_paths. (To find all paths possible in the problem, after executing, we will find a file called 'all_paths.txt' with the output*
c) *optimal (X). (To find the optimal path taken by the prisoner to escape)*
d) *valid(['G1' , 'G6' , 'G8' , 'G7' , 'G10' , 'G15' , 'G13' , 'G14' , 'G18' , 'G17']). (To find if there exists a valid path between the given nodes).*