



City University
Department of Computer Science and Engineering(CSE)
Faculty of Sciences and Engineering
Semester: (Spring, Year:2024), B.Sc. in CSE (Day)

Lab Report
Course Code: CSE 417
Course Title: Artificial Intelligence

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<u>Status</u>	
Marks:.....	Signature:.....
Comments:.....	Date:

Monkey Banana Problem

CODE:

```
initial_state(state(floor, floor, no)).

goal_state(state(_, _, yes)).

action(state(box, box, no), grab, state(box, box, yes)).

action(state(floor, Box, no), climb, state(box, Box, no)).

action(state(floor, floor, no), push_box, state(floor, box, no)).

action(state(floor, floor, no), walk_to_box, state(floor, box, no)).

solve(State, []) :- goal_state(State).
solve(State, [Action | Actions]) :-
    action(State, Action, NextState),
    solve(NextState, Actions).
solve :-

    initial_state(InitialState),

    solve(InitialState, Actions),
    write('Solution: '), nl,
    write_actions(Actions).
write_actions([]).
write_actions([Action | Actions]) :-
    write(Action), nl,
    write_actions(Actions).
:- solve.
```

OUTPUT:

 write_actions/1

Solution:
push_box
climb
grab