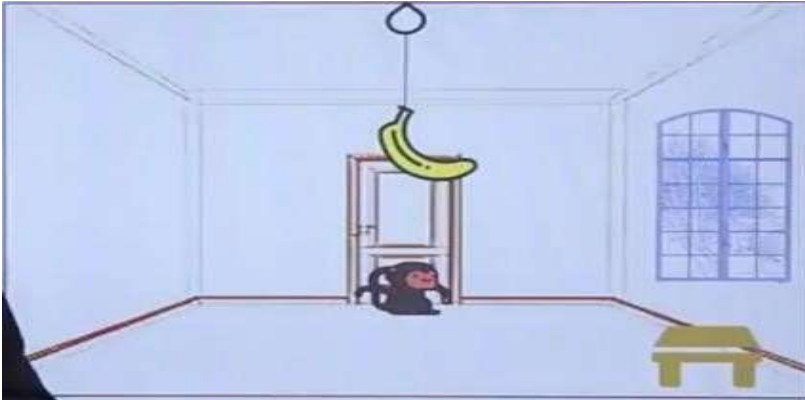


AI ASSIGNMENT – 6

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Monkey is on the floor, at door. A block is on floor, at window. Banana is hanging from the roof at the middle of room. Problem is "How monkey can get the banana?"



Source Code:

```
%position
```

```
inside(room,banana).  
inside(room,monkey).  
inside(room,box).  
on(floor,monkey).  
on(floor,box).  
at(ceiling,banana).
```

```
%Monkey have to make following steps
```

```
strong(monkey).  
cantake(monkey).  
canclime(monkey,box).
```

```
push(monkey,box):-  
    strong(monkey).
```

```
under(banana,box):-  
    push(monkey,box).
```

```

canreach(banana,monkey):-
    at(floor,banana);
    at(ceiling,banana),
    under(banana,box),
    canclime(monkey,box).

canmonkeygetbanana(banana,monkey):-
    canreach(banana,monkey),
    cantake(monkey).

```

Output:

```

GNU Prolog console
File Edit Terminal Prolog Help
GNU Prolog 1.5.0 (64 bits)
Compiled Jul  8 2021, 12:22:53 with gcc
Copyright (C) 1999-2021 Daniel Diaz

compiling C:/Users/Sourabh Patel/Desktop/assignment/82/SEM6/AI/ASS6/monkey.pl for byte code...
C:/Users/Sourabh Patel/Desktop/assignment/82/SEM6/AI/ASS6/monkey.pl compiled, 33 lines read - 2905 bytes written, 13 ms
| ?- consult('monkey.pl'),
compiling C:/Users/Sourabh Patel/Desktop/assignment/82/SEM6/AI/ASS6/monkey.pl for byte code...
C:/Users/Sourabh Patel/Desktop/assignment/82/SEM6/AI/ASS6/monkey.pl compiled, 33 lines read - 2905 bytes written, 9 ms

yes
| ?- canmonkeygetbanana(banana,monkey).

yes
| ?- trace.
The debugger will first creep -- showing everything (trace)

(15 ms) yes
{trace}
| ?- canmonkeygetbanana(banana,monkey).
1 1 Call: canmonkeygetbanana(banana,monkey) ?
2 2 Call: canreach(banana,monkey) ?
3 3 Call: at(floor,banana) ?
3 3 Fail: at(floor,banana) ?
3 3 Call: at(ceiling,banana) ?
3 3 Exit: at(ceiling,banana) ?
4 3 Call: under(banana,box) ?
5 4 Call: push(monkey,box) ?
6 5 Call: strong(monkey) ?
6 5 Exit: strong(monkey) ?
5 4 Exit: push(monkey,box) ?
4 3 Exit: under(banana,box) ?
7 3 Call: canclime(monkey,box) ?
7 3 Exit: canclime(monkey,box) ?
2 2 Exit: canreach(banana,monkey) ?
8 2 Call: cantake(monkey) ?
8 2 Exit: cantake(monkey) ?
1 1 Exit: canmonkeygetbanana(banana,monkey) ?

(125 ms) yes
{trace}
| ?-

```