

## AI LAB ASSIGNMENT - 7

21BCE7371

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SOL-1

likes(rani, mango).  
likes(bilu, candy).  
likes(mani, watersports).  
girl(lilly).  
green(rose).  
owns(john, bike).  
racer(rossi).  
boy(ranga).  
batman(rohit).  
bowler(starc).  
allrounder(hardik).  
captain(rohit).  
climbs(ram, tree).  
drinks(anil, water).  
red(apple).  
t20\_champions(england).  
odi\_champions(england).  
test\_champions(newzealand).  
fifa\_champion(france).

```
1 likes(rani, mango).  
2 likes(bilu, candy).  
3 likes(mani, watersports).  
4 girl(lilly).  
5 green(rose).  
6 owns(john, bike).  
7 racer(rossi).  
8 boy(ranga).  
9 batman(rohit).  
10 bowler(starc).  
11 allrounder(hardik).  
12 captain(rohit).  
13 climbs(ram, tree).  
14 drinks(anil, water).  
15 red(apple).  
16 t20_champions(england).  
17 odi_champions(england).  
18 test_champions(newzealand).  
19 fifa_champion(france).  
20
```

OUTPUT

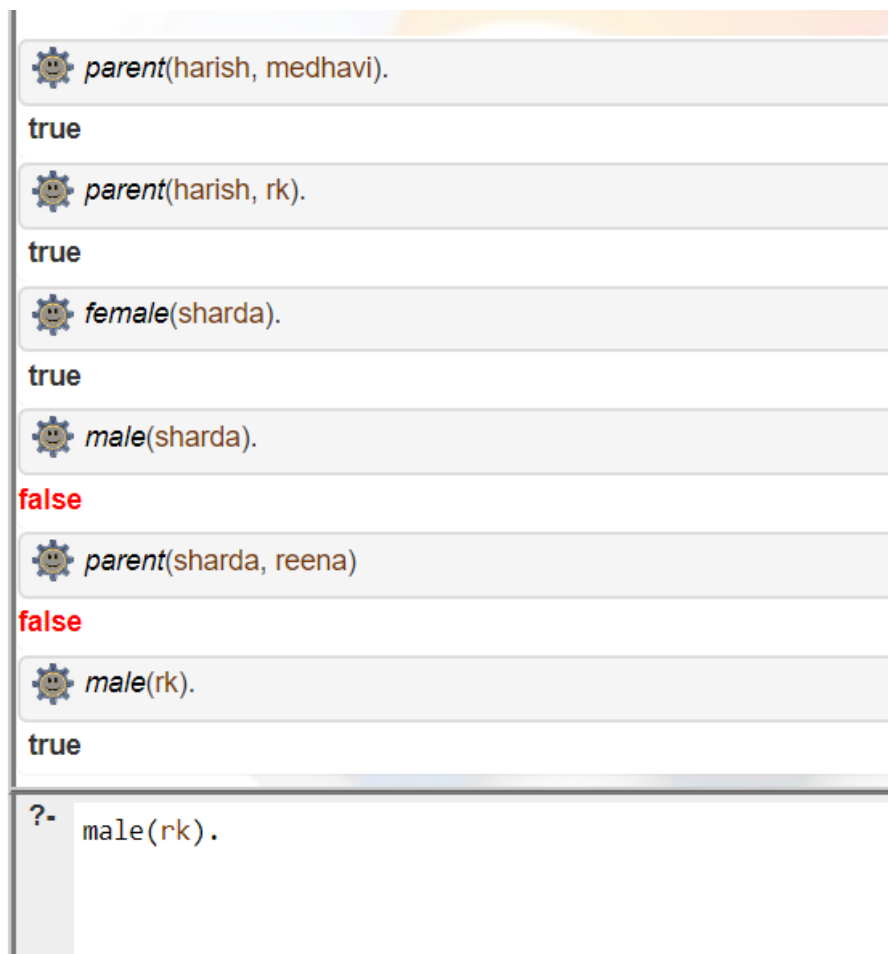


## SOL-2

male(nemi).  
male(harish).  
male(rk).  
female(sharda).  
female(reena).  
female(juhi).  
female(medhavi).  
parent(nemi, harish).  
parent(sharda, harish).  
parent(harish, medhavi).  
parent(reena, medhavi).  
parent(harish, juhi).  
parent(reena, juhi).  
parent(harish, rk).  
parent(reena, rk).

```
1 male(nemi).  
2 male(harish).  
3 male(rk).  
4 female(sharda).  
5 female(reena).  
6 female(juhi).  
7 female(medhavi).  
8 parent(nemi, harish).  
9 parent(sharda, harish).  
10 parent(harish, medhavi).  
11 parent(reena, medhavi).  
12 parent(harish, juhi).  
13 parent(reena, juhi).  
14 parent(harish, rk).  
15 parent(reena, rk).  
16
```

## OUTPUT



The screenshot shows a Prolog interpreter window with the following queries and results:

- Query: `parent(harish, medhavi).` Result: `true`
- Query: `parent(harish, rk).` Result: `true`
- Query: `female(sharda).` Result: `true`
- Query: `male(sharda).` Result: `false`
- Query: `parent(sharda, reena)` Result: `false`
- Query: `male(rk).` Result: `true`

At the bottom of the window, there is a prompt `?- male(rk).` which is not yet executed.

### SOL-3

```
symptom(chicken_pox, high_fever).
symptom(chicken_pox, chills).
symptom(flu, chills).
symptom(cold, mild_body_ache).
symptom(flu, severe_body_ache).
symptom(cold, runny_nose).
symptom(flu, runny_nose).
symptom(flu, moderate_cough).
symptom(chicken_pox, high_fever).
symptom(chicken_pox, chills).
symptom(flu, chills).
symptom(cold, mild_body_ache).
symptom(flu, severe_body_ache).
symptom(cold, runny_nose).
symptom(flu, runny_nose).
symptom(flu, moderate_cough).
```

```
1 symptom(chicken_pox, high_fever).
2 symptom(chicken_pox, chills).
3 symptom(flu, chills).
4 symptom(cold, mild_body_ache).
5 symptom(flu, severe_body_ache).
6 symptom(cold, runny_nose).
7 symptom(flu, runny_nose).
8 symptom(flu, moderate_cough).
9 symptom(chicken_pox, high_fever).
10 symptom(chicken_pox, chills).
11 symptom(flu, chills).
12 symptom(cold, mild_body_ache).
13 symptom(flu, severe_body_ache).
14 symptom(cold, runny_nose).
15 symptom(flu, runny_nose).
16 symptom(flu, moderate_cough).
```

### OUTPUT

```
]
symptom(flu, runny_nose).
true
symptom(flu, moderate_cough).
true
symptom(chicken_pox, high_fever).
true
symptom(cold, chills).
false
symptom(cough, vomit).
false
symptom(flu, severe_body_ache).
true
?- symptom(flu, severe_body_ache).
```