

## Prolog Assignment

### Statements

1. Dhoni is a cricket player.
2. Virat Kohli is a cricket player.
3. Rohit Sharma is a cricket player.
4. Ravindra Jadeja is a cricket player.
5. Virat Kohli is a batsman.
6. Ravindra Jadeja is a batsman.
7. Dhoni is a wicketkeeper.
8. Ravindra Jadeja is a bowler.
9. Dhoni is senior of Virat Kohli.
10. Rohit Sharma is senior of Ravindra Jadeja.

### Prolog Source File

cricketplayer(dhoni).

cricketplayer(virat\_kohli).

cricketplayer(rohit\_sharma).

cricketplayer(ravindra\_jadeja).

batsman(virat\_kohli).

batsman(ravindra\_jadeja).

wicketkeeper(dhoni).

bowler(ravindra\_jadeja).

senior\_of(dhoni, virat\_kohli).

senior\_of(rohit\_sharma, ravindra\_jadeja).

senior(X,Y) :- senior\_of(X,Y),batsman(Y).

all\_rounder(X) :- batsman(X),bowler(X).

next\_batsman(X,Y) :- wicketkeeper(X);batsman(Y),bowler(Y).

finisher(X) :-wicketkeeper(X).

opener\_of\_indian\_team(X,R) :- senior(X,Y),bowler(Y),senior\_of(W,R),batsman(R).

## Questions

1. List of cricket player?
2. List of batman?
3. Who is a senior of Ravindra Jadeja?
4. Who is all rounder in Indian Team?
5. If there is wicket of opening batman than who is next batman ?
6. Who is finisher of Indian Team?
7. Who is opener batman of Indian Team?

## Queries

1. List of cricket player?

Ans :- cricketplayer(X).

2. List of batman?

Ans :- batman(X).

3. Who is senior of Ravindra Jadeja?

Ans:- senior(X).

4. Who is all rounder in Indian Team?

Ans:- batman(X),bowler(X).

5. If there is wicket of opening batman than who is next batman ?

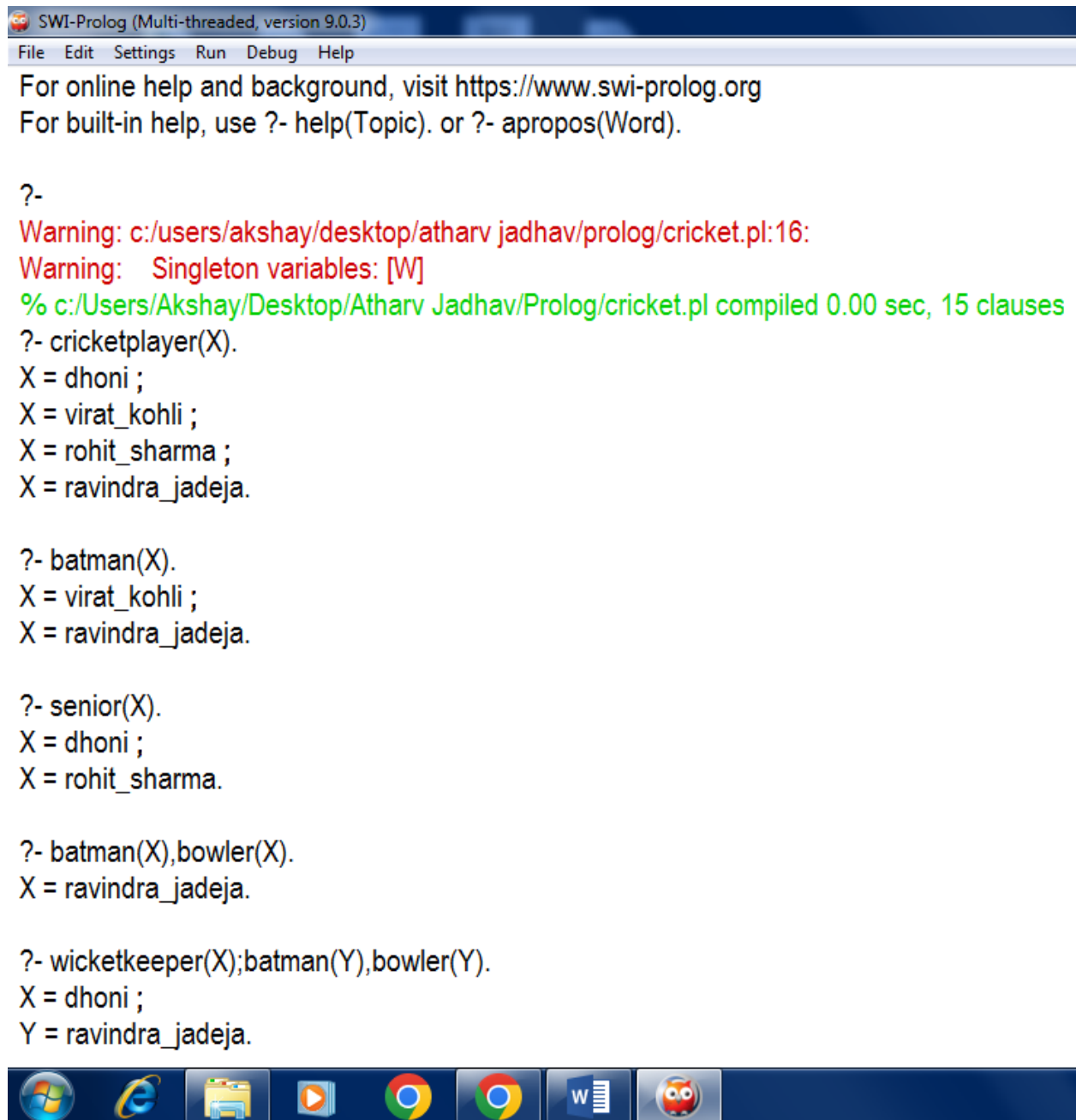
Ans :- wicketkeeper(X);batman(Y),bowler(Y).

6. Who is finisher of Indian Team?

Ans:- finisher(X) :-wicketkeeper(X).

7. Who is opener batman of Indian Team?

Ans:- `senior(X,Y),bowler(Y),senior_of(W,R),batman(R).`



```
SWI-Prolog (Multi-threaded, version 9.0.3)
File Edit Settings Run Debug Help
For online help and background, visit https://www.swi-prolog.org
For built-in help, use ?- help(Topic). or ?- apropos(Word).

?-
Warning: c:/users/akshay/desktop/atharv jadhav/prolog/cricket.pl:16:
Warning: Singleton variables: [W]
% c:/Users/Akshay/Desktop/Atharv Jadhav/Prolog/cricket.pl compiled 0.00 sec, 15 clauses
?- cricketplayer(X).
X = dhoni ;
X = virat_kohli ;
X = rohit_sharma ;
X = ravindra_jadeja.

?- batman(X).
X = virat_kohli ;
X = ravindra_jadeja.

?- senior(X).
X = dhoni ;
X = rohit_sharma.

?- batman(X),bowler(X).
X = ravindra_jadeja.

?- wicketkeeper(X);batman(Y),bowler(Y).
X = dhoni ;
Y = ravindra_jadeja.
```

```
SWI-Prolog (Multi-threaded, version 9.0.3)
File Edit Settings Run Debug Help

?- finisher(X).
X = dhoni.

?- wicketkeeper(X).
X = dhoni.

?- senior(X,Y),bowler(Y),senior_of(W,R),batman(R).
ERROR: Unknown procedure: senior/2
ERROR: However, there are definitions for:
ERROR:     senior/1
false.

?- senior(X,Y),bowler(Y),senior_of(W,R),batman(R).
ERROR: Unknown procedure: senior/2
ERROR: However, there are definitions for:
ERROR:     senior/1
false.

?- opener_of_indian_team(X,R).
ERROR: Unknown procedure: senior/2
ERROR: However, there are definitions for:
ERROR:     senior/1
ERROR: In:
ERROR: [11] senior(_9244,_9246)
ERROR: [10] opener_of_indian_team(_9270,_9272) at c:/users/akshay/desktop/atharv jadhav/prolog/cricket.pl:15
ERROR: [9] toplevel_call(user:user: ...) at c:/program files/swipl/boot/toplevel.pl:1173
Exception: (11) senior(_9244,_9246) ?
```