Artificial Intelligence
Assignment 1

U20CS005
BANSI MARAKANA

Questions:
1. Write the following facts (English Statement) in Prolog. Now, use these statements as knowledge based for answering the following Queries. Use following facts: i) occupation/2 ii) address/2 iii)salary/2 for knowledge base creation.
1. Marry is a teacher.
2. Mili is a doctor.
3. Bunny is a teacher
4. Gini is a doctor.
5. Marry lives in Surat.
6. Bunny lives in Vadodra.
7. Gini lives in Ahemdabad.
8. Mili lives in Rajkot.
9. Marry earns fortythousand rupees.
10.Mili earns fiftythousand rupees.
11.Bunny earns seventythousand rupees.
12.Gini earns sixtythousand rupees.

Facts and rules of these knowledge in prolog are given below:
occupation(marry,teacher).
occupation(mili,doctor).
occupation(bunny,teacher).
occupation(gini,doctor).
address(marry,surat).
address(bunny,vadodra).
address(gini,ahemdabad).
address(mili,rajkot).
salary(marry,fortythousand).
salary(mili,fiftythousand).
salary(bunny,seventythousand).
salary(gini,sixtythousand).

query_1(X):-occupation(X,teacher),address(X,surat).
query_2(X):-occupation(X,doctor),salary(X,sixtythousand).
query_3(X):-occupation(X,doctor),not(address(X,ahemdabad)).
query_4(X):-occupation(X,teacher),address(X,rajkot).
query_5(X):-occupation(X,doctor),address(X,ahemdabad),salary(X,sixtythousand).
query_6(X):-occupation(X,teacher),address(X,surat);address(X,vadodra).

Queries:
1. Find all teachers who lives in Surat.

query_1(X)

X = marry

| Next | 10 | 100 | 1,000 | Stop |

?-
query_1(X)

2. Find all doctors who earns sixtythousand rupees.

query_2(X)

X = gini

?-
query_2(X)

3. Find all teachers who doesn't live in Ahmedabad.

query_3(X)

X = mili
false

?-
query_3(X)

4. Find all teachers who live in Rajkot.

query_4(X)

false

?-
query_4(X)

5. Find all doctors who lives in Ahmedabad and earns sixtythousand rupees.

query_5(X)

X = gini

?-
query_5(X)

6. Find all teachers who lives in Surat or Vadodra.

query_6(X)

X = marry
X = bunny

?-
query_6(X)