

**Assignment No: 4(C)**

*Knowledge Base System*

**Name**: Amit kumar

**Roll No**: 137

**PRN No**: 0120180479

%brand name

brand(X,dell):-

X = dell\_g3;

X = dell\_inspiron;

X = dell\_g7.

brand(X,hp):-

X = hp\_pavilion;

X = hp\_envy.

brand(X,lenovo):-

X = lenovo\_legion;

X = lenovo\_ideapad.

mid\_range(lenovo\_ideapad).

mid\_range(dell\_inspiron).

mid\_range(hp\_envy).

flagship(dell\_g7).

flagship(dell\_g3).

flagship(hp\_pavilion).

flagship(lenovo\_legion).

graphics(X,3):-

flagship(X),

(brand(X,dell);brand(X,hp)).

graphics(X,4):-

mid\_range(X);

(flagship(X),(brand(X,lenovo))).

processor(X,i5):-

mid\_range(X),

(brand(X,hp);brand(X,lenovo)).

processor(X,i7):-

flagship(X),

(brand(X,lenovo);brand(X,hp)).

processor(X,i3):-

flagship(X),

brand(X,dell).

processor(X,ryzon5):-

mid\_range(X),

brand(X,dell).

price(X,35000-50000):-

mid\_range(X).

price(X,45000-100000):-

flagship(X).

waterproof(X,Y):-

flagship(X),brand(X,dell).

specification(X):-

brand(X,A),

processor(X,Z),

graphics(X,Y),

price(X,B),

nl,write('\*\*\*\*\*\*\*\*\*\*\*\*\*\*'),nl,

nl,write('Laptop Name: '), write(X),nl,

nl,write('Graphics (gb): '), write(Y),nl,

nl,write('Processor: '),write(Z),nl,

nl,write('Brand: '),write(A),nl,

nl,write('Price Range: '),write(B),nl,

%nl,write('China: '),write(C),nl,

nl,write('\*\*\*\*\*\*\*\*\*\*\*\*\*\*'),nl.

**\*\*\*\*\*OUTPUT\*\*\*\*\***

| ?- specification(X).

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Laptop Name: dell\_g3

Graphics (gb): 3

Processor: i3

Brand: dell

Price Range: 45000-100000

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

X = dell\_g3 ? ;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Laptop Name: dell\_inspiron

Graphics (gb): 4

Processor: ryzon5

Brand: dell

Price Range: 35000-50000

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

X = dell\_inspiron ? ;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Laptop Name: dell\_g7

Graphics (gb): 3

Processor: i3

Brand: dell

Price Range: 45000-100000

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

X = dell\_g7 ? ;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Laptop Name: hp\_pavilion

Graphics (gb): 3

Processor: i7

Brand: hp

Price Range: 45000-100000

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

X = hp\_pavilion ? ;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Laptop Name: hp\_envy

Graphics (gb): 4

Processor: i5

Brand: hp

Price Range: 35000-50000

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

X = hp\_envy ? ;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Laptop Name: lenovo\_legion

Graphics (gb): 4

Processor: i7

Brand: lenovo

Price Range: 45000-100000

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

X = lenovo\_legion ? ;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Laptop Name: lenovo\_ideapad

Graphics (gb): 4

Processor: i5

Brand: lenovo

Price Range: 35000-50000

\*\*\*\*\*\*\*\*\*\*\*\*\*\*

X = lenovo\_ideapad ?

(125 ms) yes

| ?- waterproof(X,Y).

X = dell\_g7 ? ;

X = dell\_g3 ? ;

no

| ?- price(X,35000-50000).

X = lenovo\_ideapad ? ;

X = dell\_inspiron ? ;

X = hp\_envy ? ;

(16 ms) no

| ?-