Sum of integers:

sum(N, Sum) :-Sum is (N + 1) \* N / 2.

sum(5, Sum).

Dob :

born(ram,12,june,2004).

born(raj,20,jan,1989).

born(sai,15,april,2003).

born(ram, D, M, Y).

**Student:**

**takes(ram, csa201).**

**takes(ram, csa178).**

**takes(raj, art302).**

**takes(raj, his123).**

**classmates(X, Y):- takes(X, Z) , takes(Y, Z).**

classmates(X, Y).

**Planet:**

**orbits(mercury, sun).**

**orbits(venus, sun).**

**orbits(earth, sun).**

**orbits(mars, sun).**

**orbits(moon, earth).**

**orbits(phobos, mars).**

**orbits(deimos, mars).**

**planet(P):- orbits(P, sun).**

**satellite(S):- orbits(S, P),planet(P).**

planet(P).

satellite(S).

**Tower of hanoi:**

**move(1, X, Y, \_):-**

**write(‘ move top disk from ‘),**

**write(X),**

**write(‘to’),**

**write(Y),**

**nl.**

**move(N, X, Y, Z):-**

**N > 1,**

**M is N-1,**

**move(M, X, Z, Y),**

**move(1, X, Y, \_),**

**move(M, Z, Y, X).**

move(3, left, right, middle).

**Bird:**

**bird(eagle, can\_fly).**

**bird(ostrich, cannot\_fly).**

**bird(sparrow, can\_fly).**

**bird(penguin, cannot\_fly).**

**can\_fly:-bird(Bird, can\_fly).**

**cannot\_fly:-bird(Bird, cannot\_fly).**

can\_fly(Bird).

**Family:**

**female(rani).**

**female(laya).**

**male(raju).**

**male(ram).**

**parent(rani, ram).**

**parent(laya, raju).**

**mother(X, Y):-parent(X, Y),female(X).**

**father(X, Y):-parent(X, Y),male(Y).**

**sister(X, Y):-parent(Z, X),parent(Z, Y),female(X),X\==Y.**

**brother(X, Y):-parent(Z, X),parent(Z, Y),male(X),X\==Y.**

mother(X, ram).

**Disease:**

**diet(“diabetes, leafy vegetables.”).**

**diet(“obesity, salt drinks should reduce.”).**

**diet(“hypertension, reduce salt intake.”).**

**suggest\_diet(Disease, diet):-**

**diet(Disease, diet).**

suggest\_diet(diabetes, Diet).

**Fruit:**

**fruit\_color(apple, red).**

**fruit\_color(orange, orange).**

**fruit\_color(grapes, green).**

**fruit\_color(pomegranate, red).**

**fruit\_color(banana,yellow).**

**find\_color(Fruit, Color):-fruit\_color(Fruit,Color).**

find\_color(apple, Color).