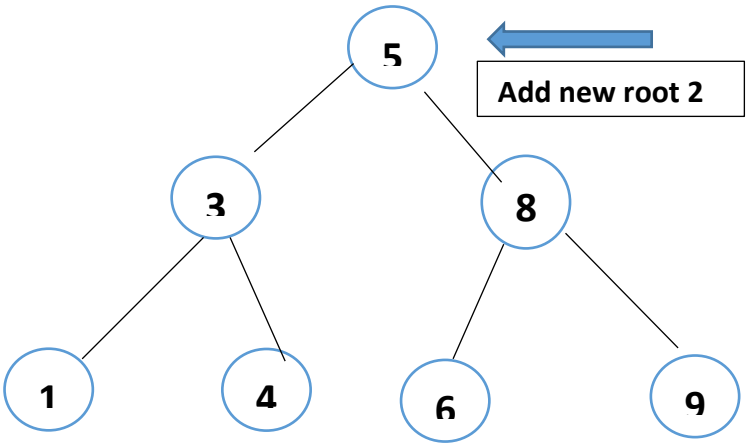
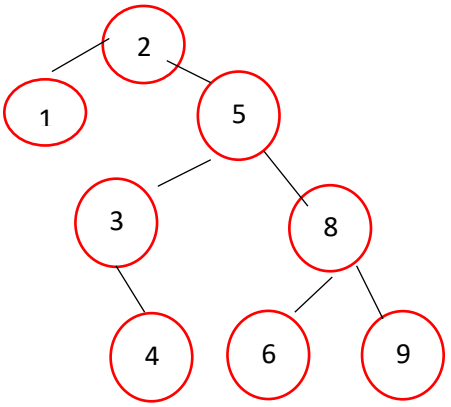
Tracing of AddRoot Example




```
addroot( nil, X, t( nil, X, nil)).
addroot( t( L, Y, R), X, t( L1, X, t( L2, Y, R))) :-
    X<Y,  addroot( L, X, t( L1, X, L2)).
addroot( t( L, Y, R), X, t( t( L, Y, R1), X, R2)) :-
    X>Y,  addroot( R, X, t( R1, X, R2)).
```



Will match with 2nd clause:

Addroot(t(t(nil,1,nil) 3,t(nil,4,nil) ,5, t(t(nil,6,nil),8, t(nil,9,nil)) , 2,

t(L1, 2, t(L2, 5, t(t(nil,6,nil),8,t(nil,9,nil)))) :-

Recursion

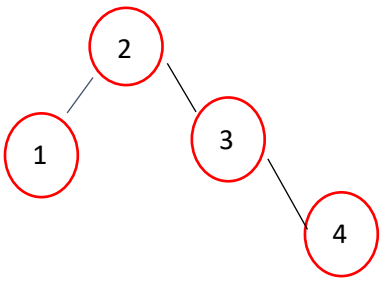
Addroot(t(t(nil,1,nil) 3,t(nil,4,nil)), 2 , t(L1, 2, L2)).

L1=nil,1,nil

L2=nil, 3, t(nil,4,nil)

Will match with 2nd clause:

Addroot(t(t(nil,1,nil) 3,t(nil,4,nil)), 2, t(L1, 2, t(L2, 3, t(nil,4,nil)):-



Recursion

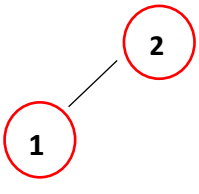
Addroot(t(t(nil,1,nil) 2 , t(L1, 2, L2)).

L1= nil,1,nil

L2=nil

Will match with 3rd clause:

Addroot(t(t(nil,1,nil) , 2, t(nil, 1, R1) , 2, R2):-



Addroot(nil, 2, t(R1, 2, R2))