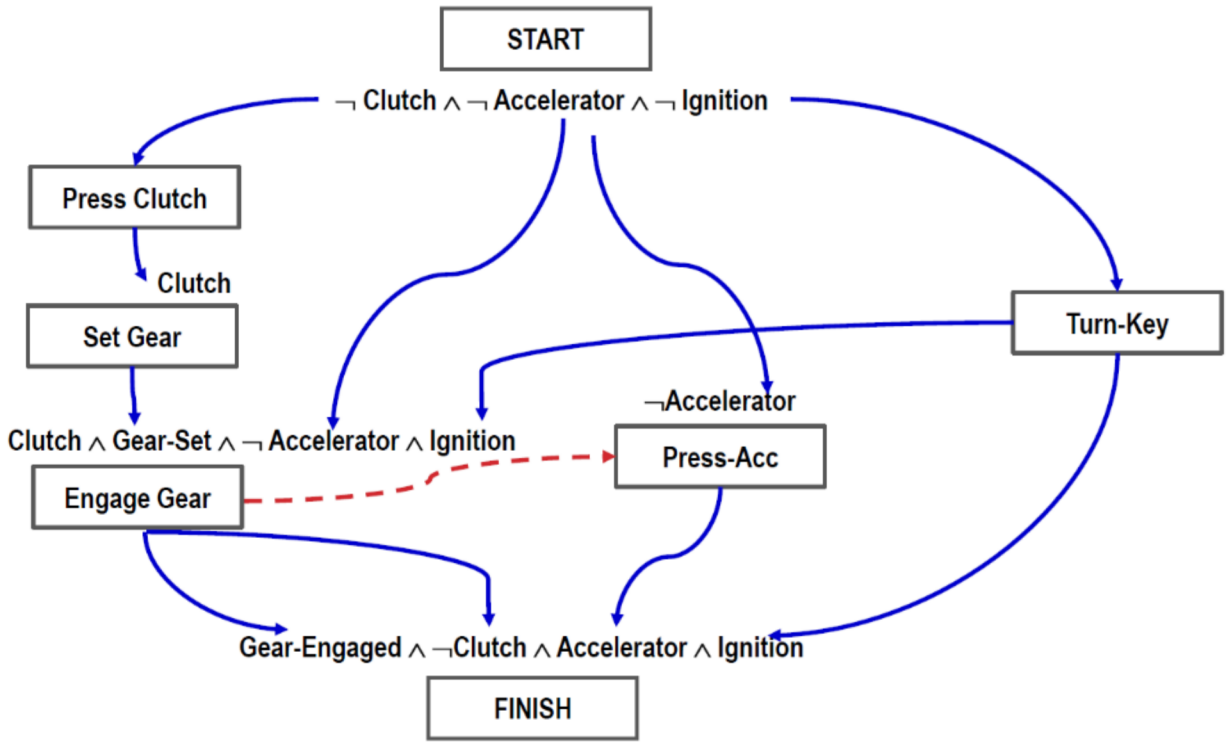
# AI COURSE TUTORIALS: Planning September 17th 2021

**Q1.**



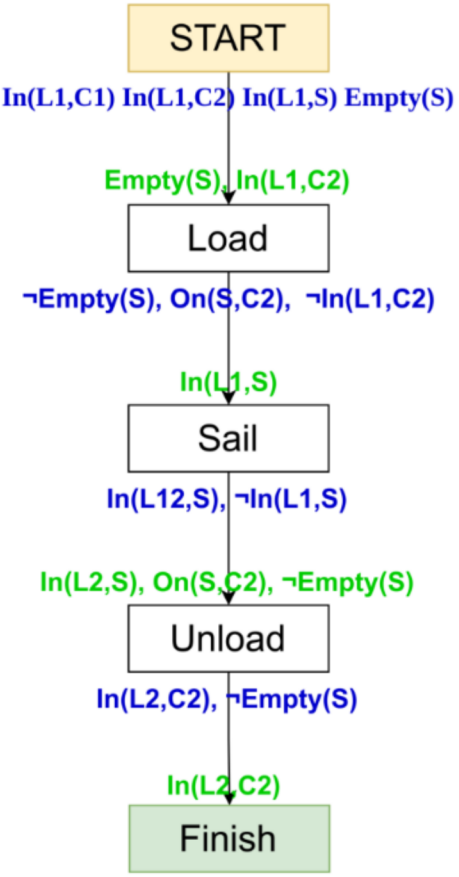

**Q2.**
**Predicates:** In(y,x), Empty(s), On(s,y)
**Objects:** L1, L2, C1, C2, S
**Goal Specification:** In(L2,C2)
**Initial State:** In(L1,C1) In(L1,C2) In(L1,S) Empty(S)

**Action Schema:**

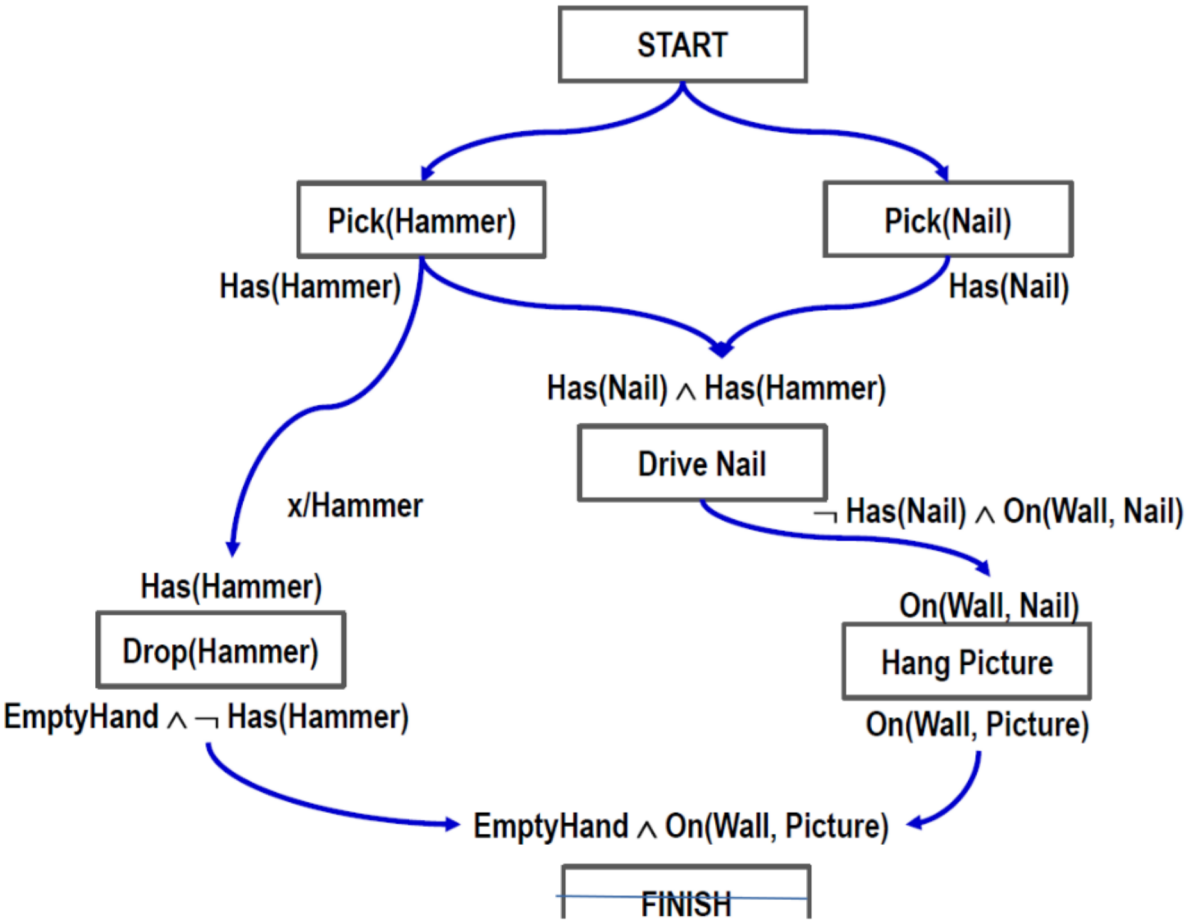
*Load(S,x,y)*
Precond: In(y,S), In(y,x), Empty(S)
Effect: ¬Empty(S), On(S,x), ¬In(y,x)

*Unload(S,x,y)*
Precond: In(y,S), On(S,x), ¬Empty(S)
Effect: Empty(S), In(y,x)

*Sail(S,x,y)*
Precond: In(x,S)
Effect: ¬In(x,S), In(y,S)




**Q3.**


START
Pick(Hammer)
Pick(Nail)
Has(Hammer)
Has(Nail)
Has(Nail) ∧ Has(Hammer)
Drive Nail
x/Hammer
¬ Has(Nail) ∧ On(Wall, Nail)
Has(Hammer)
Drop(Hammer)
On(Wall, Nail)
Hang Picture
EmptyHand ∧ ¬ Has(Hammer)
On(Wall, Picture)
EmptyHand ∧ On(Wall, Picture)
FINISH