EXPERIMENT 40

Prolog programs to goal based agent

state(room1, on(table1, book1)).

state(room1, on(table1, book2)).

state(room1, clear(table1)).

state(room1, handempty).

% Define the goals

goal(room1, on(floor, book1)).

goal(room1, on(floor, book2)).

% Define the actions

% pick up a book

action(pickup(X, Y)) :-

state(Z, on(X, Y)),

state(Z, clear(X)),

state(Z, handempty),

retract(state(Z, on(X, Y))),

retract(state(Z, clear(X))),

assert(state(Z, handfull)),

assert(state(Z, clear(X))).

% put down a book

action(putdown(X, Y)) :-

state(Z, handfull),

state(Z, clear(X)),

retract(state(Z, handfull)),

assert(state(Z, on(X, Y))),

assert(state(Z, clear(X))).

% Implement the plan

plan(Z, G) :-

goal(Z, G),

state(Z, G).

plan(Z, G) :-

goal(Z, G),

action(A),

plan(Z, A).

OUTPUT

