CSE 259 - Logic in Computer Science
Fall 2024

Recitation-9

Project 2: Chess - Part 3 (Task 2 and 3)

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Project-2: Task 3

Current code

```
/* ------------------------------------------------------------------ */
/* WRITE YOUR CODE FOR TASK-3 HERE */
/* MODIFY THE CODE SO THAT playerA AND playerB AUTO-COMPETE */
/* ------------------------------------------------------------------ */
play(Board) :-
    /* move playerA */
    /* get_command asks the user for the move to be made.
       modify this so that playerA moves on its own */
    get_command(Command),
    execute_command(Command, Board, NewBoard),

    /* move playerB */
    execute_command(playerB, NewBoard, NextNewBoard),
    play(NextNewBoard).
```

Project-2: Task 3

- There are 3 execute_command that are called from play()
- The first one is for inputs taken from user. The second one is for automated players. And the third one is for handling unexpected situations.

```
/* execute the move selected */
execute_command(Move, Board, NewBoard) :-
        parse_move(Move, From, To),
        move(Board, From, To, white, Piece),
        make_move(Board, From, To, NewBoard), !.

execute_command(Player, Board, NewBoard) :-
    respond_to(Player, Board, NewBoard), !.

execute_command(X, Board, _) :-      % Use to catch unexpected situations
    write('What?'),
    halt(0).
```

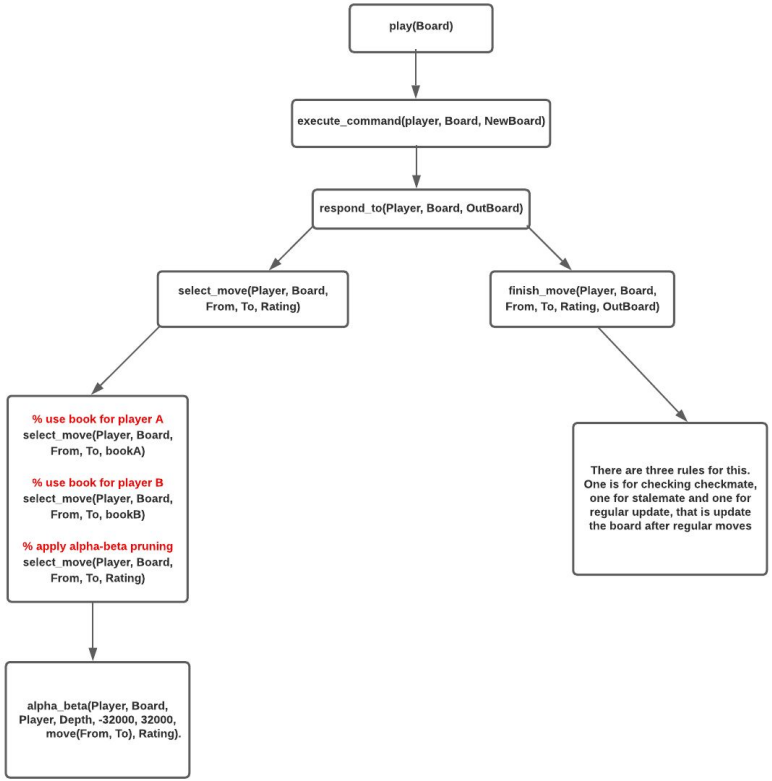
Project-2: Task 3

- Change like the following so that playerA plays on its own

```
/* ------------------------------------------------------------------------ */
/* WRITE YOUR CODE FOR TASK-3 HERE */
/* MODIFY THE CODE SO THAT playerA AND playerB AUTO-COMPETE */
/* ------------------------------------------------------------------------ */
play(Board) :-
    /* move playerA */
    /* get_command asks the user for the move to be made.
       modify this so that playerA moves on its own */
    execute_command(playerA, Board, NewBoard),

    /* move playerB */
    execute_command(playerB, NewBoard, NextNewBoard),
    play(NextNewBoard).
```

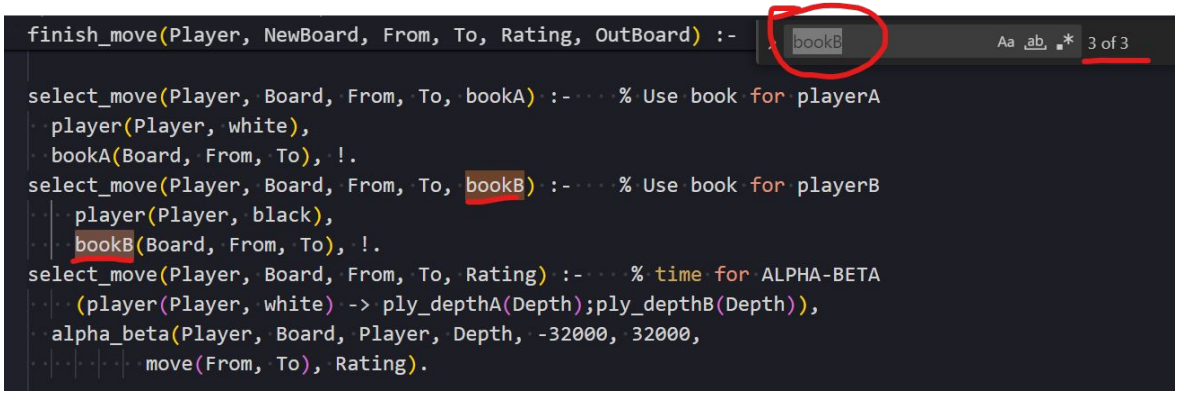
Project-2: Task 2

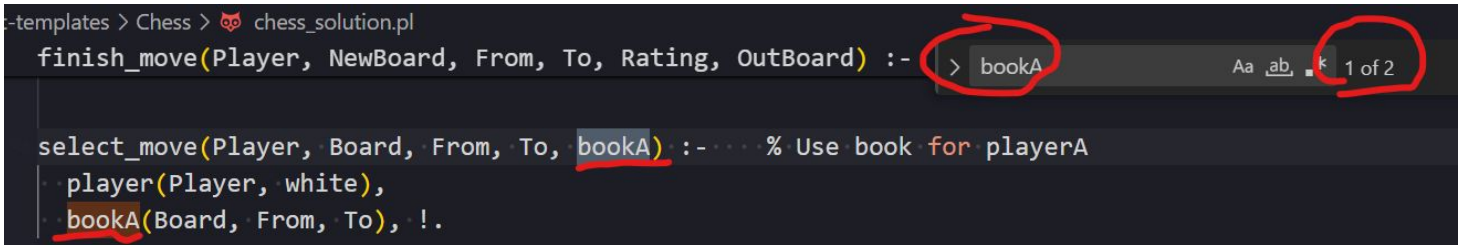


- Play called execute_command
- execute_command calls respond_to
- responde_to calls 2 rules
  - select_move: select a move
  - finish_move: finish moving the selected move
- select_move has 3 rules. One is for playerA. Start from select_move of playerB and start mimicking the code

Project-2: Task 2

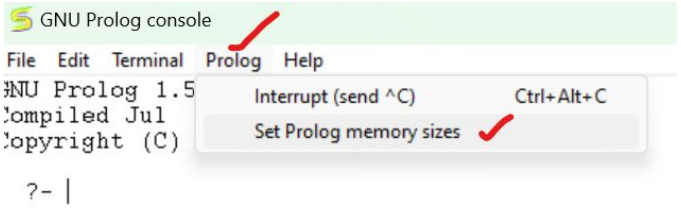
- Look carefully - bookB in select_move appears 3 times. bookA appears 2 times. So, we start working from here

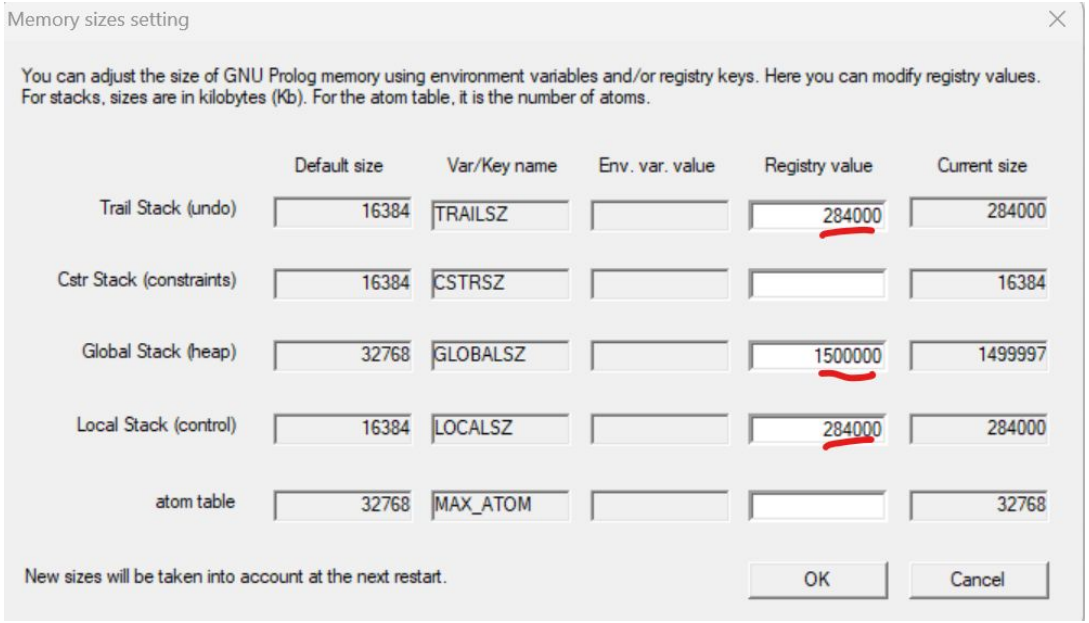




Project-2

- Change memory if your program is unexpectedly quitting





Project-2

- For Linux or mac use the following command to open GNU Prolog and then load your pl file

```
LOCALSZ=28400 GLOBALSZ=1500000 TRAILSZ=284000 gprolog
```