

BURAK KOCAUSTA

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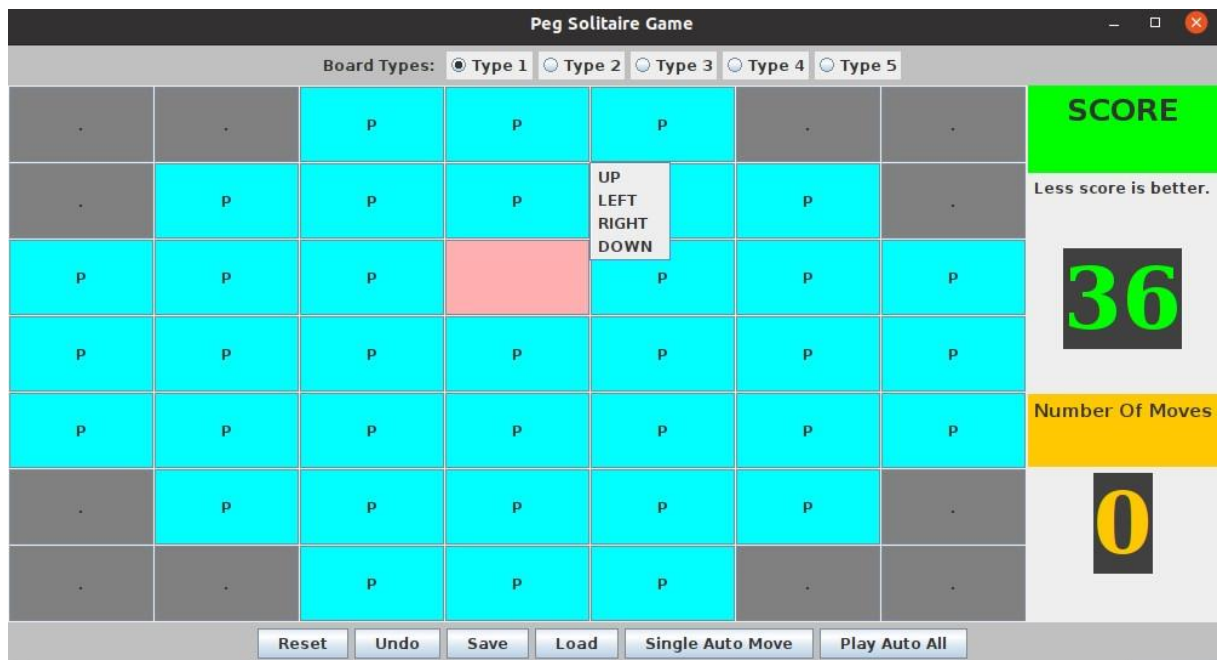
CSE 241 HOMEWORK 8

Initial Screen

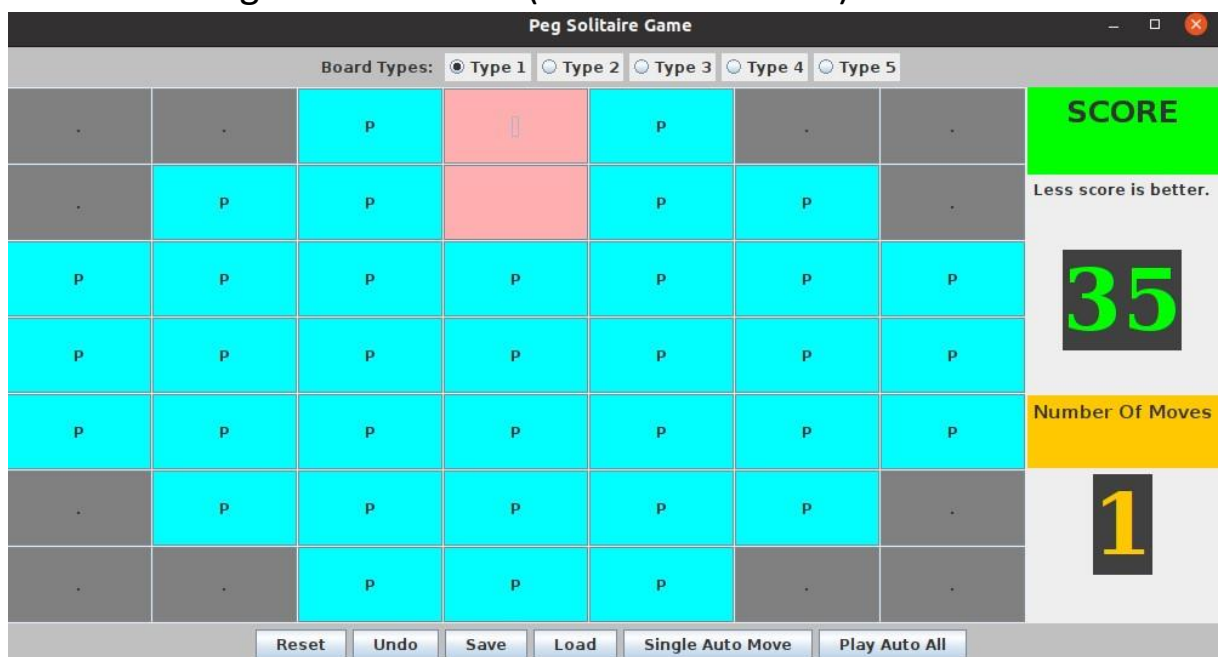


- Board types are represented with radio buttons above.
- Board is represented with JButtons and grid layout.
- Score and total number of successful move are right side on the screen.
- Reset, undo, save, load, single auto move, and play auto all buttons are on the south of the frame.

Board and Movement



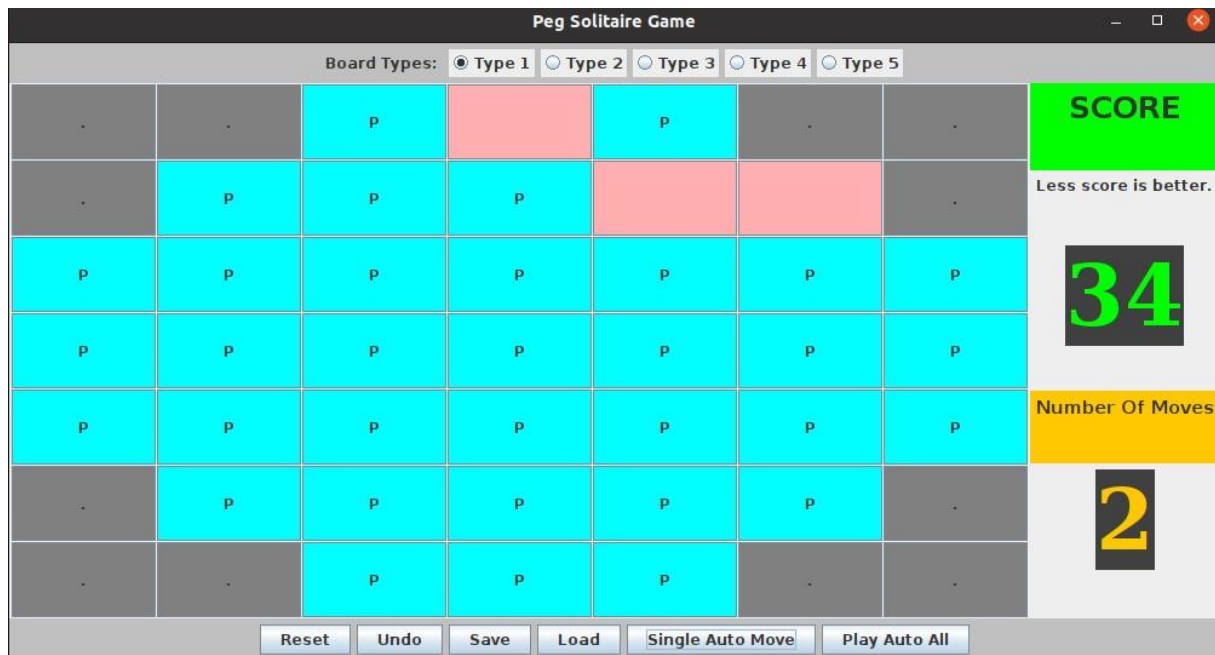
When board's button is clicked, a directions menu pops up.
After choosing valid direction (down in this case)



Score is decremented and number of moves is incremented after one valid movement. If move cannot be done it does nothing.

Single Auto Move and Play Auto All buttons

After clicking the Single Auto Move button



It makes one random valid move.

After clicking the Play Auto All button



Plays the game automatically till the end, and pops a message.

Undo and Reset Buttons

After clicking undo button

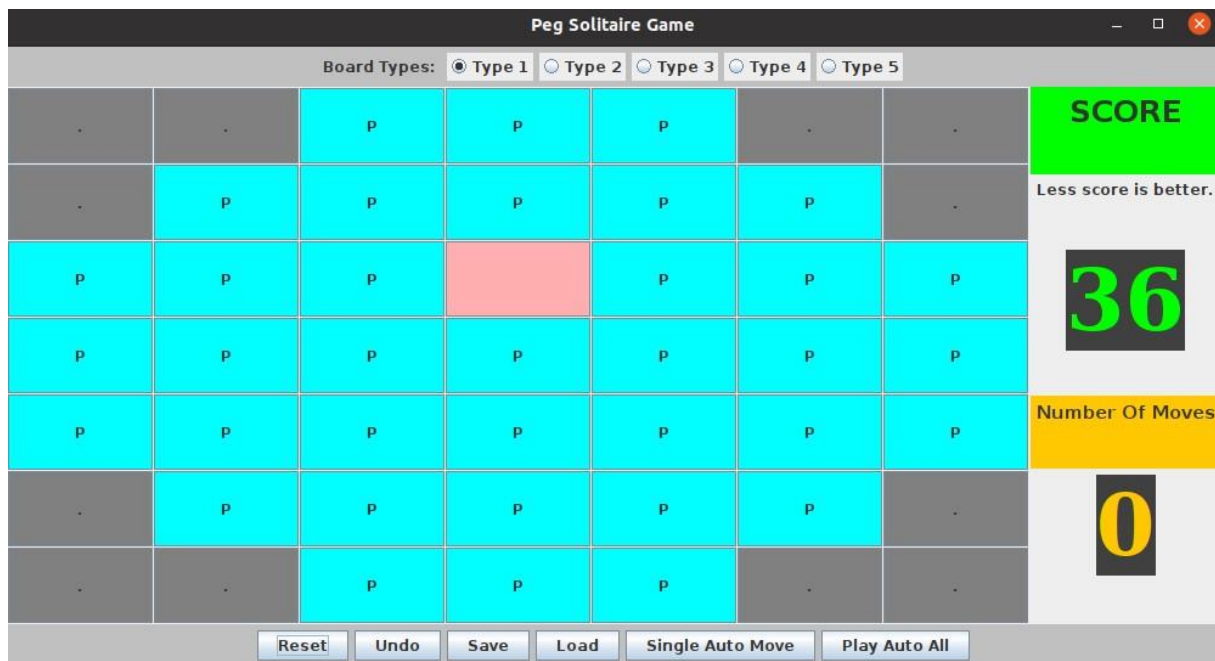


After one more clicking to undo button



It can be undone till its initial state.

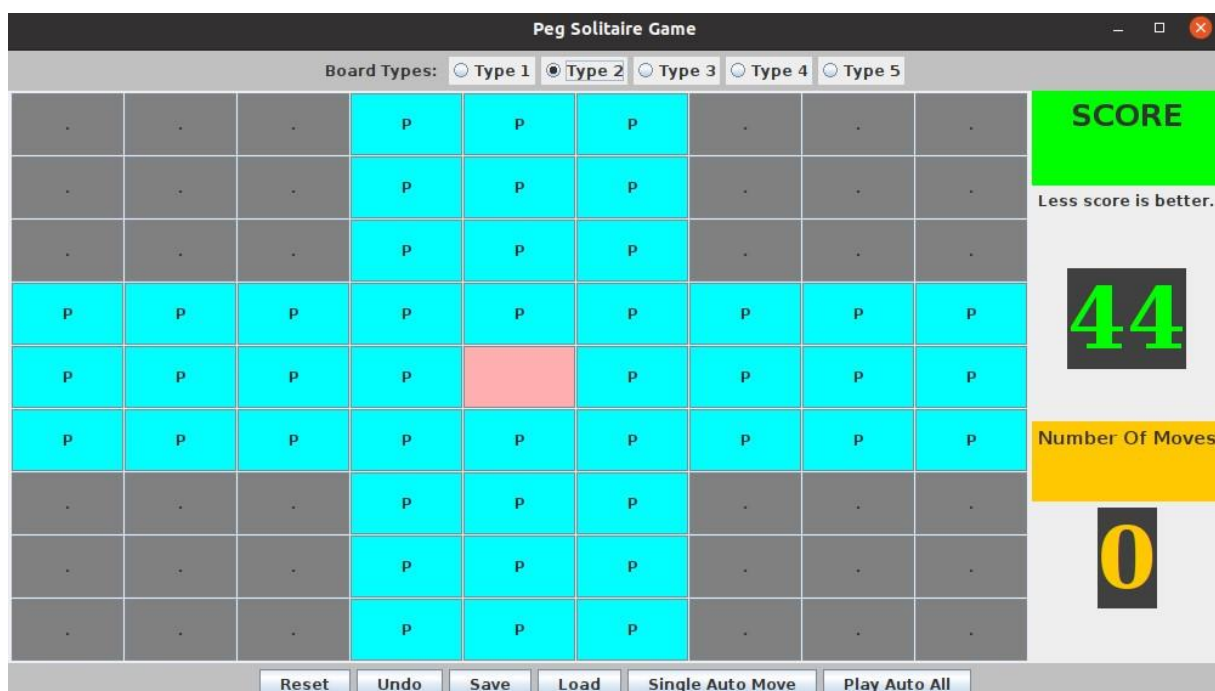
After clicking the reset button



Board Type Buttons

- Boards can be played simultaneously. Each type protects its current state during runtime.
- After clicking radio buttons each board and their scores comes to the frame.

After clicking Type 2



After Clicking Type 3

Peg Solitaire Game

Board Types: ☐ Type 1 ☐ Type 2 ☒ Type 3 ☐ Type 4 ☐ Type 5

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| . | . | p | p | p | . | . | . |
| . | . | p | p | p | . | . | . |
| . | . | p | p | p | . | . | . |
| p | p | p | p | p | p | p | p |
| p | p | p | | p | p | p | p |
| p | p | p | p | p | p | p | p |
| . | . | p | p | p | . | . | . |
| . | . | p | p | p | . | . | . |

SCORE
Less score is better.
38

Number Of Moves
0

Reset Undo Save Load Single Auto Move Play Auto All

After Clicking Type 4

Peg Solitaire Game

Board Types: ☐ Type 1 ☐ Type 2 ☐ Type 3 ☒ Type 4 ☐ Type 5

| | | | | | | |
|---|---|---|---|---|---|---|
| . | . | p | p | p | . | . |
| . | . | p | p | p | . | . |
| p | p | p | p | p | p | p |
| p | p | p | | p | p | p |
| p | p | p | p | p | p | p |
| . | . | p | p | p | . | . |
| . | . | p | p | p | . | . |

SCORE
Less score is better.
32

Number Of Moves
0

Reset Undo Save Load Single Auto Move Play Auto All

After Clicking Type 5



Boards current state is protected while switching their types, for example if you play a bit with Type 5 board.



After Clicking Type 1

Peg Solitaire Game

Board Types: ☒ Type 1 ☐ Type 2 ☐ Type 3 ☐ Type 4 ☐ Type 5

| | | | | | | |
|---|---|---|---|---|---|---|
| . | . | P | P | P | . | . |
| . | P | P | P | P | P | . |
| P | P | P | | P | P | P |
| P | P | P | P | P | P | P |
| P | P | P | P | P | P | P |
| . | P | P | P | P | P | . |
| . | . | P | P | P | . | . |

SCORE
Less score is better.
36

Number Of Moves
0

Reset Undo Save Load Single Auto Move Play Auto All

After Playing Type 1 a bit

Peg Solitaire Game

Board Types: ☒ Type 1 ☐ Type 2 ☐ Type 3 ☐ Type 4 ☐ Type 5

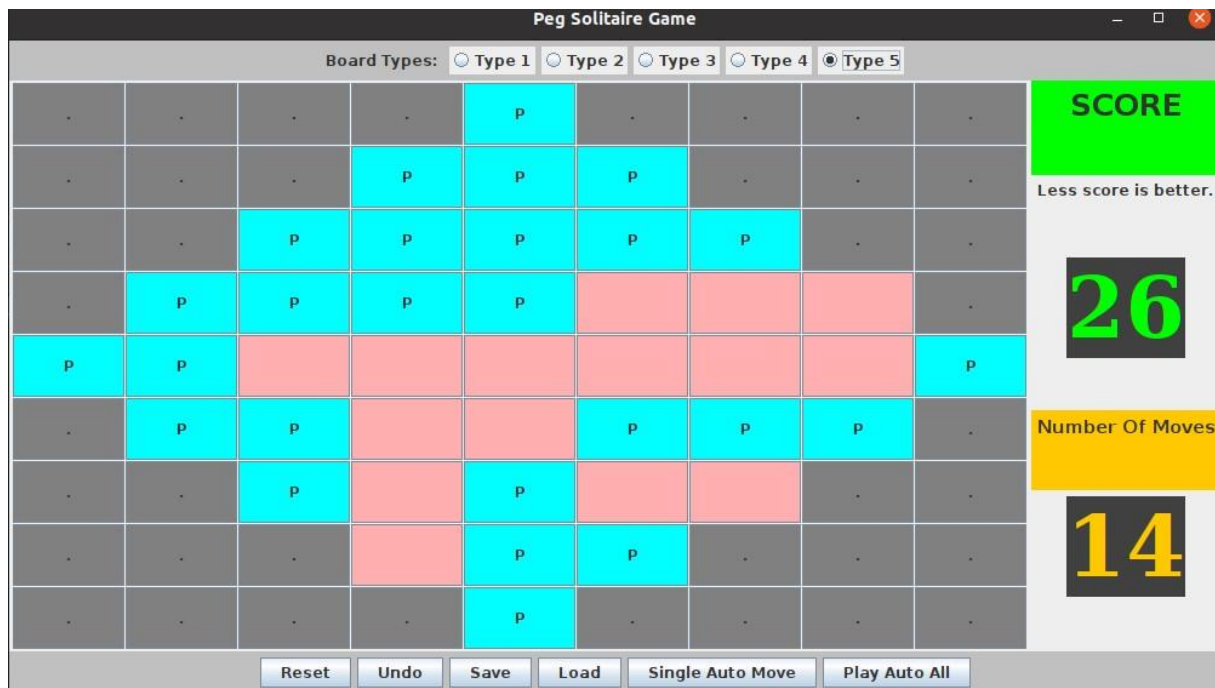
| | | | | | | |
|---|---|---|---|---|---|---|
| . | . | P | | P | . | . |
| . | P | | | | P | . |
| | | P | | | P | P |
| | | P | | P | P | P |
| P | P | P | | P | | |
| . | P | P | P | | P | . |
| . | . | P | P | P | . | . |

SCORE
Less score is better.
22

Number Of Moves
14

Reset Undo Save Load Single Auto Move Play Auto All

After clicking Type 5 again



It protects its last state.

Save and Load buttons

After clicking Save button



game4.txt file

```
1 numOfMove = 14
2 state = 0
3 boardType = 5
4 rowBound = 9
5 colBound = 9
6 ....P....
7 ...PPP...
8 ..PPPPP..
9 .PPPP .
10 PP P
11 .PP PPP.
12 ..P P ..
13 ... PP...
14 ....P....
15 46L
16 65U
17 66U
18 36D
19 57L
20 34R
21 44R
22 32R
23 37D
24 36D
25 53U
26 52U
27 73U
28 54L
29
```

command are listed below to provide undo option after loading

After clicking Reset button



After clicking Load button



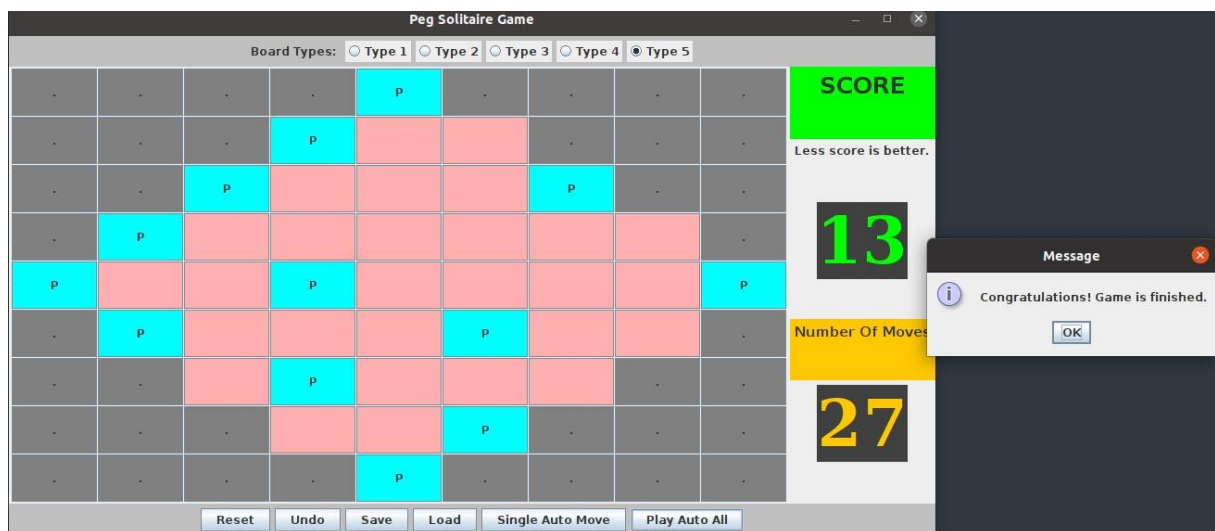
After clicking OK



After clicking Undo Button



After clicking Play Auto All Button

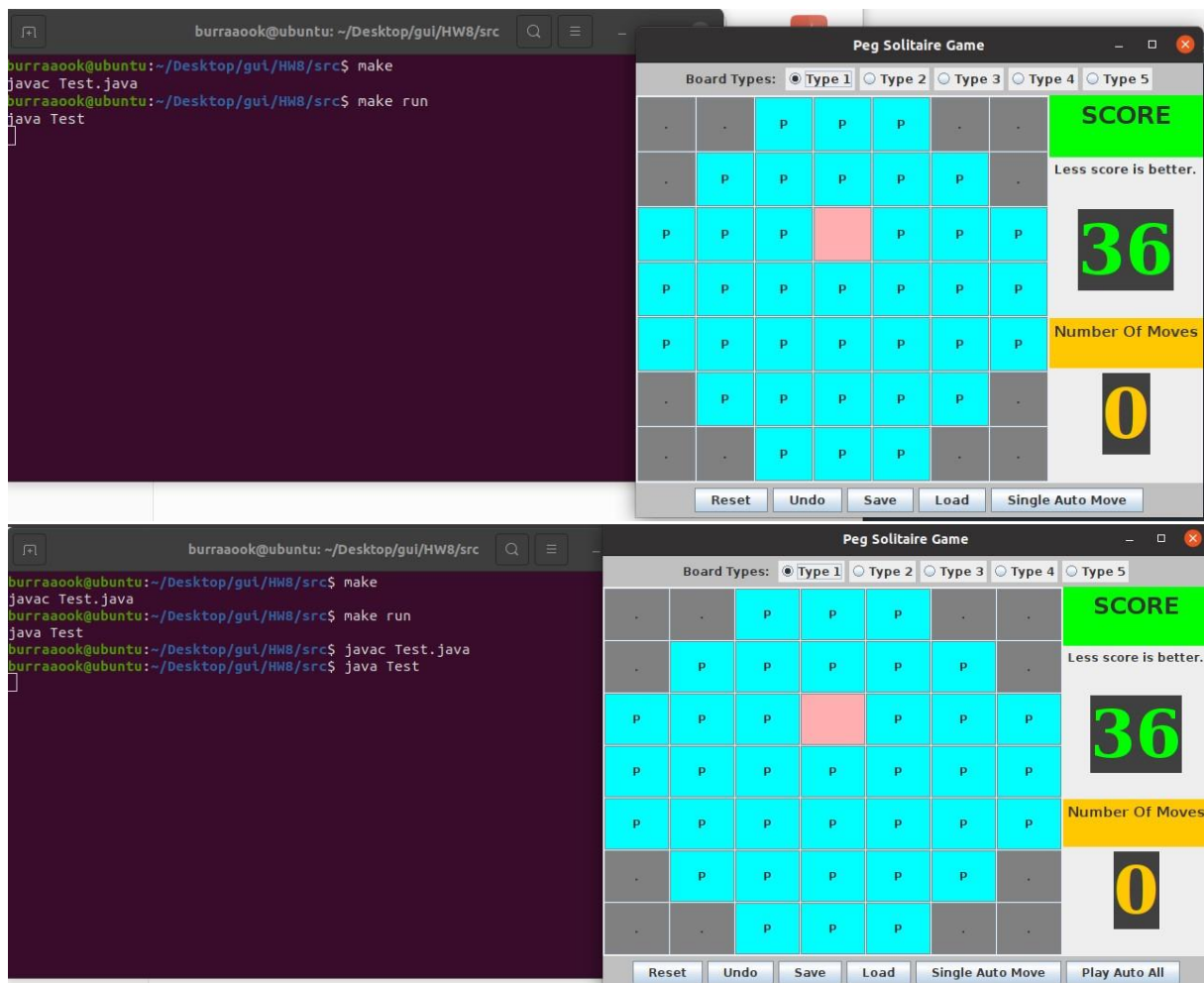


So, game supports undo operation and it is playable after loading.

Compilation and Run

File can be compiled with single `make` command or `javac Test.java` command in `src` directory.

It can be run with `make run` command or `java Test` command in `src` directory.



Both are possible.