



Computer & Systems Engineering Department

CSE 225: Paradigms Final Project Phase 1

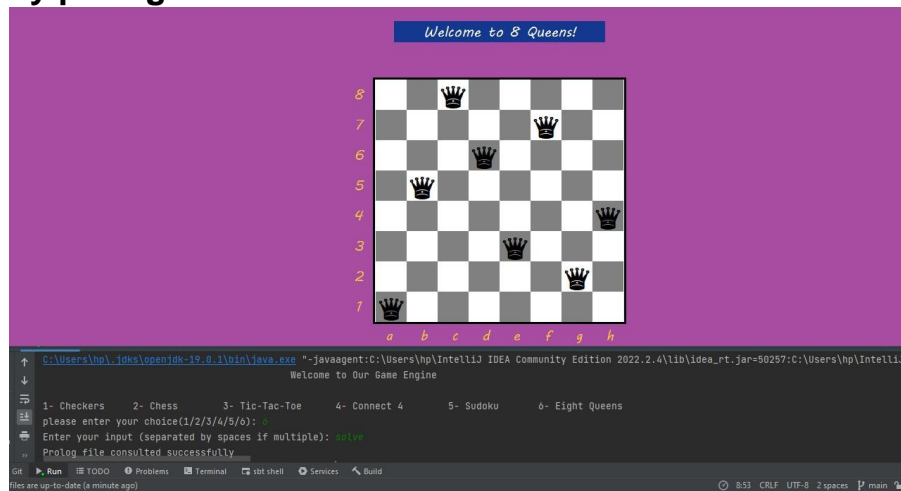
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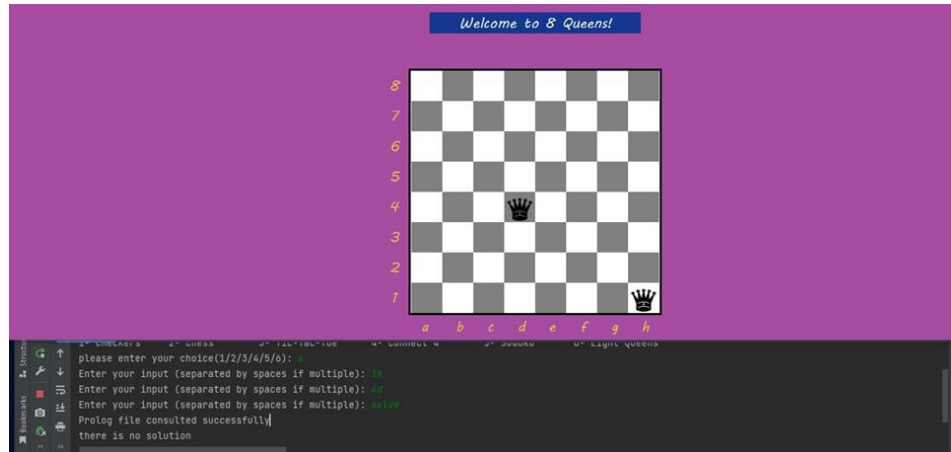
Test cases for both solvers screenshots:

1) 8-Queens:

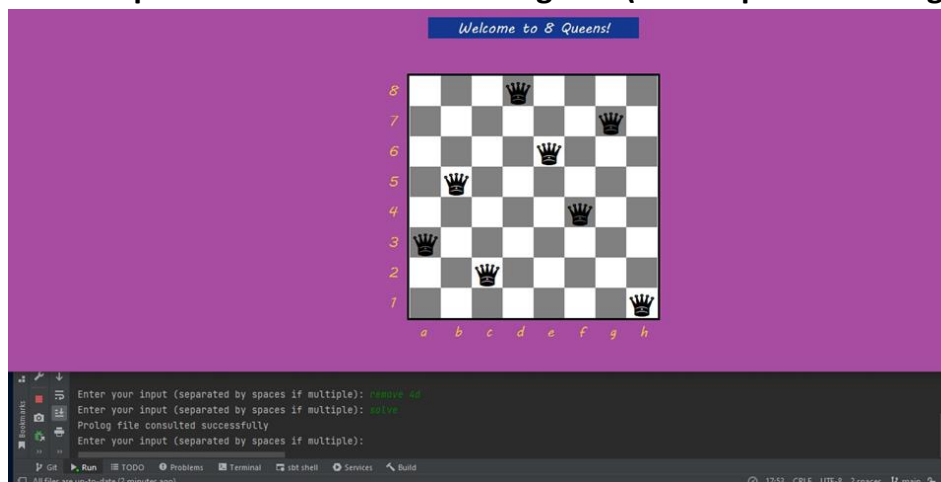
1st test is a basic run for the 8-queens game and typing “solve” to generate a solution by prolog.



2nd test is user plays some valid moves, then types “solve” but there is no solution puts the eight queens without anyone attacking the other “i.e there is no complete solution” as output showing.

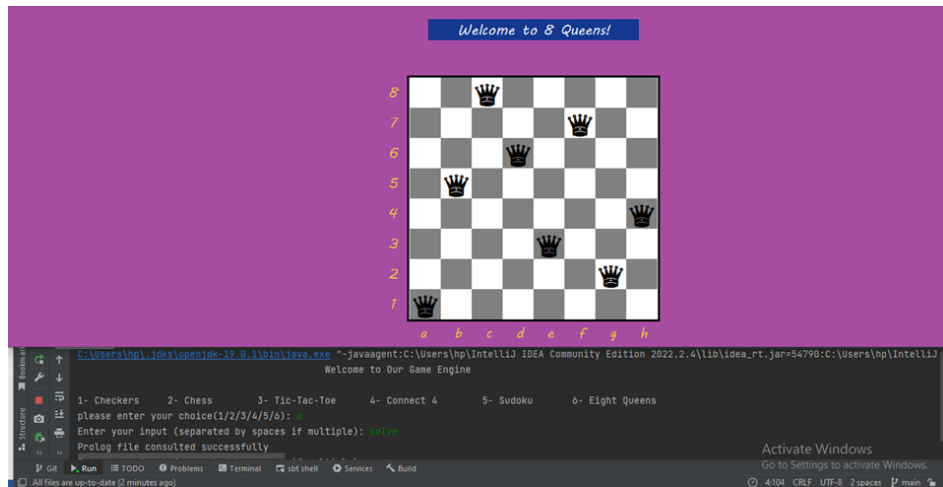


3rd test is user can remove one of the inputted moves and then type “solve” and this time there is a complete solution can solve the game (for the previous image).

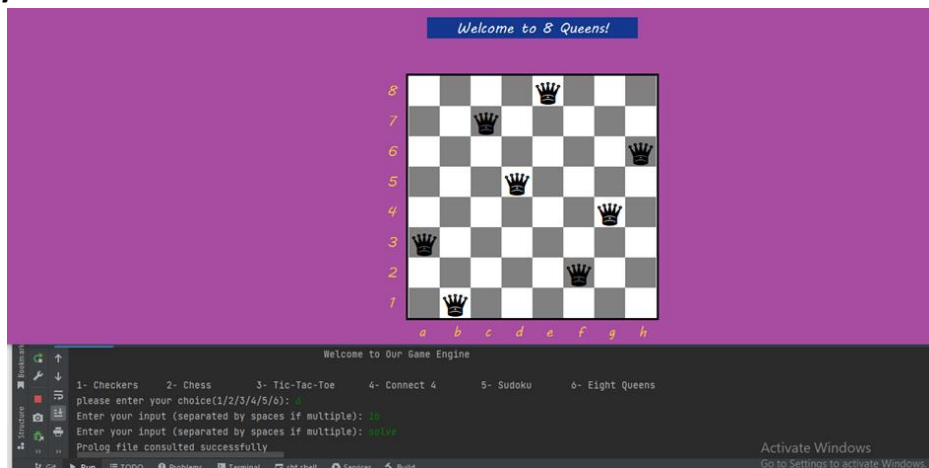


4th tests for different valid solution using prolog:

Test 1)



Test 2) Play "1b" then solve.

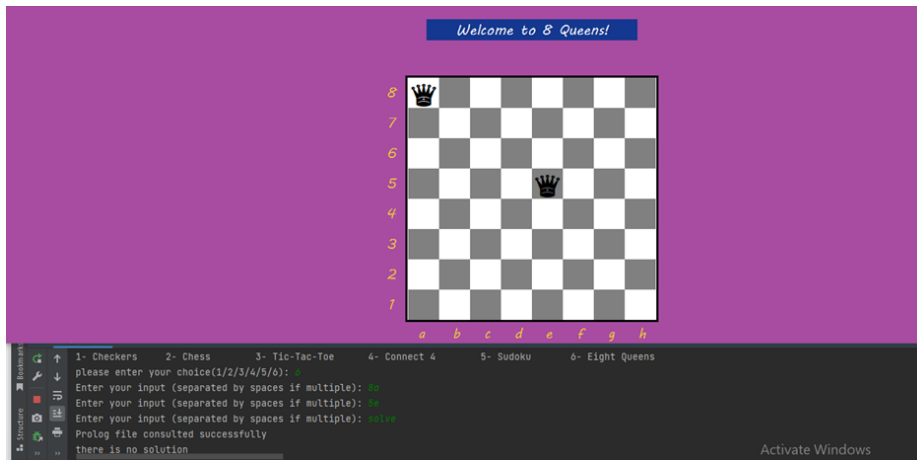


5th tests for no valid solutions after some user moves.

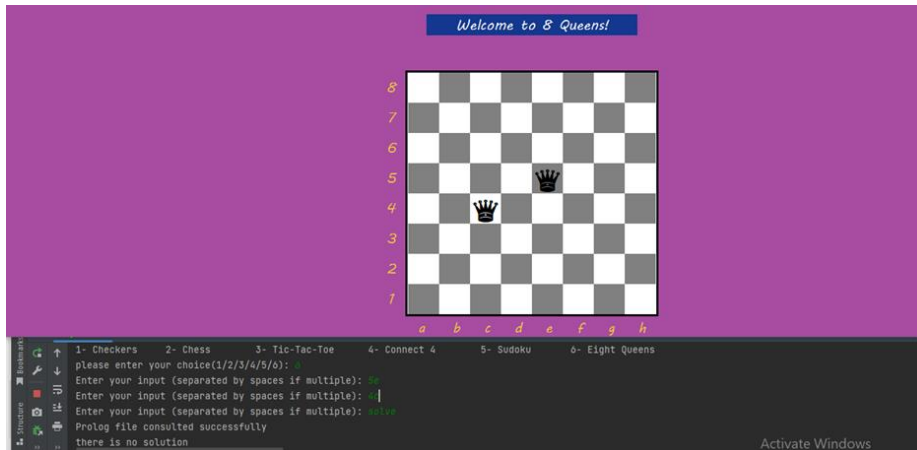
1) Test1



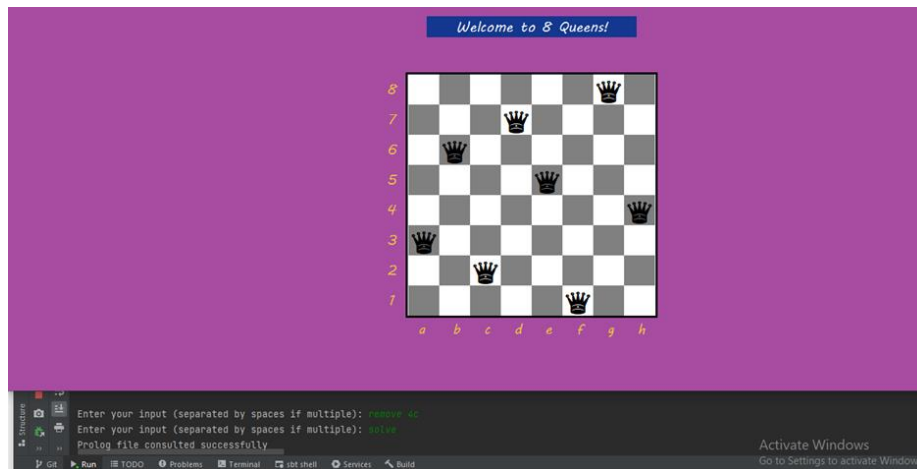
2) Test2



3) Test3

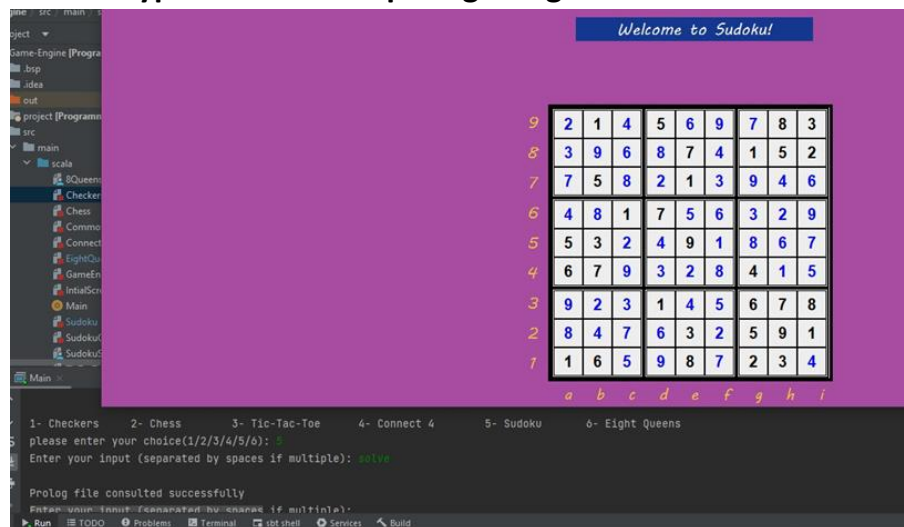


Remove 4c then solve

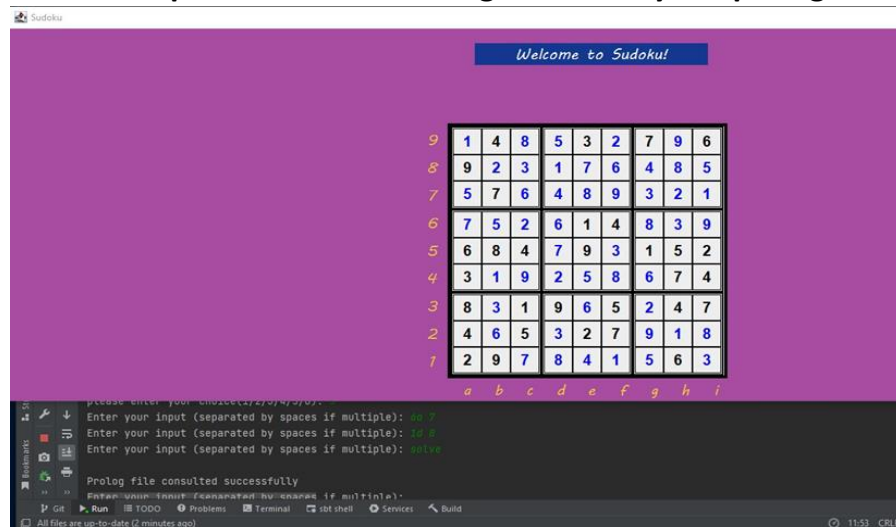


II) Sudoku:

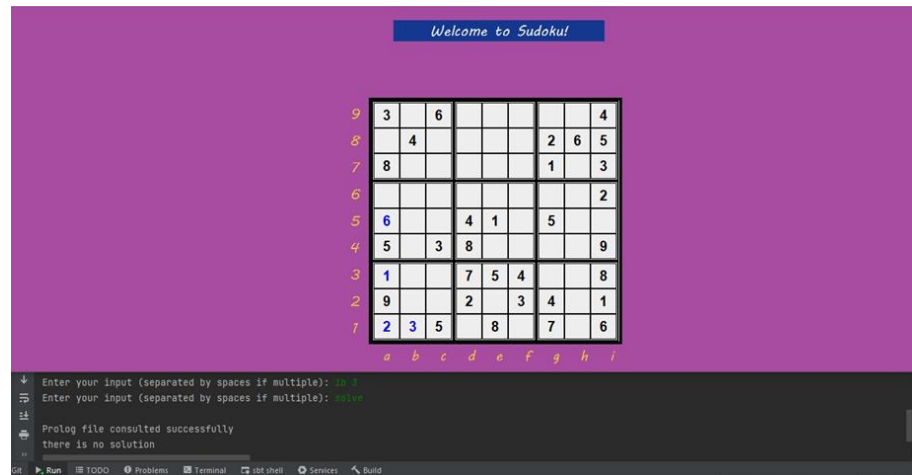
1st basic test is user types “solve” and prolog will generate a valid solution.



2nd test is user can remove one of the inputted numbers and then type “solve” and this time there is a complete solution can be generated by the prolog.



3rd test is user plays some valid numbers, then types “solve” but there is no solution puts the numbers to complete the fillings “i.e there is no complete solution” as output showing.



4th tests for different valid solution using prolog:

1)

Welcome to Sudoku!

9	1	3	7	2	9	5	4	8	6
8	2	4	8	3	6	7	5	9	1
7	6	5	9	8	4	1	7	3	2
6	9	1	6	5	2	8	3	7	4
5	5	8	3	1	7	4	6	2	9
4	4	7	2	6	3	9	1	5	8
3	3	6	4	7	8	2	9	1	5
2	8	9	5	4	1	3	2	6	7
1	7	2	1	9	5	6	8	4	3
	a	b	c	d	e	f	g	h	i

1- Checkers 2- Chess 3- Tic-Tac-Toe 4- Connect 4 5- Sudoku 6- Eight Queens
 please enter your choice(1/2/3/4/5/6): 5
 Enter your input (separated by spaces if multiple): solve
 Prolog file consulted successfully

2)

Welcome to Sudoku!

9	5	8	4	2	6	1	7	9	3
8	1	9	3	4	5	7	8	6	2
7	2	6	7	3	9	8	4	5	1
6	8	1	5	7	3	6	9	2	4
5	4	2	9	1	8	5	6	3	7
4	7	3	6	9	2	4	5	1	8
3	6	7	1	5	4	2	3	8	9
2	3	5	2	8	7	9	1	4	6
1	9	4	8	6	1	3	2	7	5
	a	b	c	d	e	f	g	h	i

1- Checkers 2- Chess 3- Tic-Tac-Toe 4- Connect 4 5- Sudoku 6- Eight Queens
 please enter your choice(1/2/3/4/5/6): 5
 Enter your input (separated by spaces if multiple): solve
 Prolog file consulted successfully

3) Play 1a 8 then solve

Welcome to Sudoku!

9	4	3	7	5	2	1	8	9	6
8	6	5	8	4	7	9	3	2	1
7	9	1	2	3	6	8	7	5	4
6	2	4	3	6	8	5	9	1	7
5	7	9	6	2	1	4	5	8	3
4	5	8	1	7	9	3	6	4	2
3	3	2	4	8	5	7	1	6	9
2	1	6	5	9	3	2	4	7	8
1	8	7	9	1	4	6	2	3	5
	a	b	c	d	e	f	g	h	i

1- Checkers 2- Chess 3- Tic-Tac-Toe 4- Connect 4 5- Sudoku 6- Eight Queens
 please enter your choice(1/2/3/4/5/6): 5
 Enter your input (separated by spaces if multiple): 1a 8
 Enter your input (separated by spaces if multiple): solve
 Prolog file consulted successfully

4) Play 1a 3, 1i 8, 1f 5 then solve

Welcome to Sudoku!

9	6	7	1	2	5	4	8	3	9
8	2	8	5	3	9	6	7	4	1
7	4	9	3	1	7	8	6	2	5
6	5	4	7	9	6	1	2	8	3
5	1	6	9	8	3	2	5	7	4
4	8	3	2	5	4	7	1	9	6
3	9	2	8	6	1	3	4	5	7
2	7	5	6	4	8	9	3	1	2
1	3	1	4	7	2	5	9	6	8
	a	b	c	d	e	f	g	h	i

Enter your input (separated by spaces if multiple): 1a 3
Enter your input (separated by spaces if multiple): 1i 8
Enter your input (separated by spaces if multiple): 1f 5
Enter your input (separated by spaces if multiple): solve
Prolog file consulted successfully

Activate Windows

5th tests for no valid solutions after some user moves.

1) Play 1b 1

Welcome to Sudoku!

9				6		2	7		
8					7				
7		6						5	
6			6			4	5		
5					4	2		8	3
4	4	2		3	5			7	
3				9		7			
2	7			4	1	6			
1	6	1	4	2	7	3	5	9	
	a	b	c	d	e	f	g	h	i

Enter your input (separated by spaces if multiple): 1b 1
Enter your input (separated by spaces if multiple): solve
Prolog file consulted successfully
there is no solution

Activate Windows

2) Play 1e 6, 4d 7, 8h 6

Welcome to Sudoku!

9	5			7	9		1		
8		9		1		7	6		
7	6		1					9	
6	2	4		9	1	5		7	
5	9			8					4
4		3		7					
3	6	3	4				2		
2	4	7			3				
1	1	5			6		4	3	
	a	b	c	d	e	f	g	h	i

Enter your input (separated by spaces if multiple): 1e 6
Enter your input (separated by spaces if multiple): 4d 7
Enter your input (separated by spaces if multiple): 8h 6
Enter your input (separated by spaces if multiple): solve
Prolog file consulted successfully
there is no solution

Activate Windows

3) Play 9g 1

Welcome to Sudoku!

9		3		4	6		1		
8				8			6	2	
7		7	6	2			4	3	
6						8		7	
5	3				4		8	6	
4				7		2	9		
3			2	9			5		
2		5		7			9	4	
1	1	9	3				8		
	a	b	c	d	e	f	g	h	i

please enter your choice(1/2/3/4/5/6):
Enter your input (separated by spaces if multiple): 9g 1
Enter your input (separated by spaces if multiple): solve
Prolog file consulted successfully
there is no solution

Activate Windows
Go to Settings to activate Windows.

Remove 9g then solve

Welcome to Sudoku!

9	2	3	5	4	6	9	7	1	8
8	4	1	9	8	3	7	6	2	5
7	8	7	6	2	5	1	4	3	9
6	9	6	4	1	2	8	3	5	7
5	3	2	7	5	9	4	1	8	6
4	5	8	1	3	7	6	2	9	4
3	7	4	2	9	8	3	5	6	1
2	6	5	8	7	1	2	9	4	3
1	1	9	3	6	4	5	8	7	2
	a	b	c	d	e	f	g	h	i

Enter your input (separated by spaces if multiple): remove 9g
Enter your input (separated by spaces if multiple): solve
Prolog file consulted successfully
Enter your input (separated by spaces if multiple):

Activate Windows
Go to Settings to activate Windows.

With our regards.