

## Bonus Question: Chess 说明文档

郑卓民-18342138

基础 UI 界面以及简单移动棋子：

```
Console App.java Jood.java
App (1) [Java Application] D:\Java\jdk-12.0.1\bin\javaw.exe (2019年11月4日 下午7:00:44)
Enter name of user 1 as white player: Alice
Enter name of user 2 as black player: Bob
Enter "StartGame" to start a new game or "LoadBoard" to load from file: StartGame
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
6
5
4
3
2 P6 P6 P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of white player: 23 43
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
6
5
4
3
2 P6 P6 P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of black player: 74 54
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
6
5
4
3
2 P6 P6 P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of white player: 43 54
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
6
5
4
3
2 P6 P6 P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of white player: 43 54
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
6
5
4
3
2 P6 P6 P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of black player: 84 54
 1 2 3 4 5 6 7 8
8 3R 5N 4B 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
6
5
4
3
2 P6 P6 P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of white player: 75 54
Invalid
Enter the action of white player: 91 71
Invalid
Enter the action of white player: 7 61
Invalid
Enter the action of white player: 84 64
Invalid
Enter the action of white player:
```

## Save\Load Board\Undo\Exit 功能:

```
Enter name of user 1 as white player: Alice
Enter name of user 2 as black player: Bob
Enter "StartGame" to start a new game or "LoadBoard" to load from file: StartGame
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
6
5
4
3
2 P6 P6 P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of white player: 23 43
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
6
5
4      P6
3
2 P6 P6      P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of black player: 74 54
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P      6P 6P 6P 6P
6
5      6P
4      P6
3
2 P6 P6      P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of white player: Save
Saved!
Enter the action of white player: Undo
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
```

```
 1 2 3 4 5 6 7 8
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of black player: 74 54
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P      6P 6P 6P 6P
6
5      6P
4      P6
3
2 P6 P6      P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of white player: Save
Saved!
Enter the action of white player: Undo
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
6
5
4      P6
3
2 P6 P6      P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of black player: Undo
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
6
5
4
3
2 P6 P6 P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of white player: Exit
See you~~
```

```

Enter name of user 1 as white player: Alice
Enter name of user 2 as black player: Bob
Enter "StartGame" to start a new game or "LoadBoard" to load from file: LoadBoard
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
6
5
4      6P
3      P6
2 P6 P6      P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of white player: 43 54
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
6
5
4      P6
3
2 P6 P6      P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of black player:

```

电脑 > LENOVO (D:) > eclipse-workspace > JOOD\_3

名称	修改日期	类型	大小
.settings	2019/10/24 20:51	文件夹	
src	2019/10/24 20:51	文件夹	
target	2019/10/24 20:51	文件夹	
.classpath	2019/10/25 10:53	CLASSPATH 文件	2 KB
.gitignore	2019/9/3 17:04	文本文档	1 KB
.project	2019/9/3 15:07	PROJECT 文件	1 KB
array.txt	2019/11/4 19:07	文本文档	1 KB
pom.xml	2019/9/4 23:11	XML 文档	2 KB

## Pawn 的特殊规则:

```

Enter name of user 1 as white player: a
Enter name of user 2 as black player: b
Enter "StartGame" to start a new game or "LoadBoard" to load from file: StartGame
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
6
5
4
3
2 P6 P6 P6 P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of white player: 21 41
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
6
5
4 P6
3
2      P6 P6 P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of black player: 72 52
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P
6
5      6P
4 P6
3
2      P6 P6 P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of white player: 41 52
 1 2 3 4 5 6 7 8
8 3R 5N 4B 2Q 1K 4B 5N 3R
7 6P 6P 6P 6P 6P 6P 6P

```

首步走两步

Enter the action of black player: 72 52

1 2 3 4 5 6 7 8  
8 3R 5N 4B 2Q 1K 4B 5N 3R  
7 6P 6P 6P 6P 6P 6P 6P

6

5 6P

4 P6

3

2 P6 P6 P6 P6 P6 P6 P6

1 R3 N5 B4 Q2 K1 B4 N5 R3

Enter the action of white player: 41 52

1 2 3 4 5 6 7 8  
8 3R 5N 4B 2Q 1K 4B 5N 3R  
7 6P 6P 6P 6P 6P 6P 6P

6

5 P6

4

3

2 P6 P6 P6 P6 P6 P6 P6

1 R3 N5 B4 Q2 K1 B4 N5 R3

Enter the action of black player: 73 63

1 2 3 4 5 6 7 8  
8 3R 5N 4B 2Q 1K 4B 5N 3R  
7 6P 6P 6P 6P 6P 6P 6P

6

5 P6

4

3

2 P6 P6 P6 P6 P6 P6 P6

1 R3 N5 B4 Q2 K1 B4 N5 R3

Enter the action of white player: 52 62

1 2 3 4 5 6 7 8  
8 3R 5N 4B 2Q 1K 4B 5N 3R  
7 6P 6P 6P 6P 6P 6P 6P

6

P6 6P

Enter the action of white player: 62 72

1 2 3 4 5 6 7 8  
8 3R 5N 4B 2Q 1K 4B 5N 3R  
7 6P P6 6P 6P 6P 6P 6P

6

5 6P

4

3

2 P6 P6 P6 P6 P6 P6 P6

1 R3 N5 B4 Q2 K1 B4 N5 R3

Enter the action of black player: 53 43

1 2 3 4 5 6 7 8  
8 3R 5N 4B 2Q 1K 4B 5N 3R  
7 6P P6 6P 6P 6P 6P 6P

6

5 6P

4

3

2 P6 P6 P6 P6 P6 P6 P6

1 R3 N5 B4 Q2 K1 B4 N5 R3

Enter the action of white player: 72 82

Pawn promotion, choose:

1. Queen

2. Rook

3. Bishop

4. Knight

Please enter the num you choose : 1

1 2 3 4 5 6 7 8  
8 3R Q2 4B 2Q 1K 4B 5N 3R  
7 6P 6P 6P 6P 6P 6P 6P

6

5 6P

4

3

2 P6 P6 P6 P6 P6 P6 P6

1 R3 N5 B4 Q2 K1 B4 N5 R3

Enter the action of black player: 72 82

```

1. Queen
2. Rook
3. Bishop
4. Knight
Please enter the num you choose : 1
  1  2  3  4  5  6  7  8
8 3R Q2 4B 2Q 1K 4B 5N 3R
7 6P      6P 6P 6P 6P 6P
6
5
4      6P
3
2      P6 P6 P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of black player: 43 33
  1  2  3  4  5  6  7  8
8 3R Q2 4B 2Q 1K 4B 5N 3R
7 6P      6P 6P 6P 6P 6P
6
5
4
3      6P
2      P6 P6 P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of white player: 82 83
  1  2  3  4  5  6  7  8
8 3R      Q2 2Q 1K 4B 5N 3R
7 6P      6P 6P 6P 6P 6P
6
5
4
3      6P
2      P6 P6 P6 P6 P6 P6 P6
1 R3 N5 B4 Q2 K1 B4 N5 R3
Enter the action of black player: Exit
See you~~

```