Lab 6 Report

Course: ENSF 607 - Fall 2020
Lab #: Lab 6
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Exercise 1

Program Output

```
(base) mklasby@XPS-13-9300:~/Documents/meng/607/Labs/Lab_6$ java -cp ./bin: Ex_1.Client
please enter a word:
racecar
racecar
racecar Is a palindrome!
please enter a word:
hello
hello
hello Is not a palindrome!
please enter a word:
QUIT
(base) mklasby@XPS-13-9300:~/Documents/meng/607/Labs/Lab_6$
```

Exercise 2

Program Output

```
Hello Mike
(base) mklasby@XPS-13-9300:~/Documents/meng/607/Labs/Lab_6$ java -cp ./bin: Ex_2.Client
Please select an option (DATE/TIME):
DATE
2020-11-07
Please select an option (DATE/TIME):
TIME
10:52:29
Please select an option (DATE/TIME):
QUIT
Good Bye!
(base) mklasby@XPS-13-9300:~/Documents/meng/607/Labs/Lab_6$
```

Exercise 3

Program Output

NOTE: Due to the encoding of allsongs.ser, please see all files for this exercise in the root folder of the git repo. Please specify the file name to read as a command line argument to ReadRecord.java

Write Record:

```
(base) mklasby@XPS-13-9300:~/Documents/meng/607/Labs/Lab_6$ java WriteRecord
1999  I have a dream  ABBA  23.5
2012  Dream On  Aerosmith  12.0
2008  Grace like rain  Todd Agnew  6.7
1999  Old soul  Thea Gilmor  4.5
1999  Rolling in the deep  Adele  11.98
1999  I see stars  Cindy Alxander  23.5
2000  I am Eighteen  Alice Cooper  14.5
(base) mklasby@XPS-13-9300:~/Documents/meng/607/Labs/Lab_6$
```

Read Record - mysongs.ser

```
(base) mklasby@XPS-13-9300:~/Documents/meng/607/Labs/Lab_6$ java ReadRecord mySongs.ser
mySongs.ser1999 I have a dream ABBA 23.5
2012 Dream On Aerosmith 12.0
2008 Grace like rain Todd Agnew 6.7
1999 Old soul Thea Gilmor 4.5
1999 Rolling in the deep Adele 11.98
1999 I see stars Cindy Alxander 23.5
2000 I am Eighteen Alice Cooper 14.5
End of file reached
(base) mklasby@XPS-13-9300:~/Documents/meng/607/Labs/Lab_6$
```

Read Record - allsongs.ser

```
(base) mklasby@XPS-13-9300:~/Documents/meng/607/Labs/Lab_6$ java ReadRecord allSongs.ser
allSongs.ser1999 I have a dream ABBA 23.5
2000 S.O.S. ABBA 14.5
2013 Waterloo ABBA 30.0
2012 Dream On Aerosmith 12.0
2008 Grace like rain Todd Agnew 6.7
1999 Old soul Thea Gilmor 4.5
1988 Honey Bunny Adam Gilmor 6.7
2000 Poison Arrow ABC 7.95
1988 How Long? Ace 12.45
1991 Straight From the Heart Bryan Adams 9.9
1999 Rolling in the deep Adele 11.98
1999 I see stars Cindy Alxander 23.5
2000 I am Eighteen Alice Cooper 14.5
2013 Waterloo ABBA 30.0
2012 Smile Lily Allen 12.0
2008 Tear in your hand Tori Amos 6.7
1999 Crash about to happen Brett Anderson 4.5
1988 O Superman Laurie Anderson 6.7
2000 Do-Re-Mi Julie Andrews 7.95
End of file reached
(base) mklasby@XPS-13-9300:~/Documents/meng/607/Labs/Lab_6$
```

Exercise 4

Program Output

Server:

```
(base) mklasby@XPS-13-9300:~/Documents/meng/607/Labs/Lab_6$  /usr/lib/jvm/java-11-openjdk-amd64/bin/java -Dfile.encoding=UTF-8 -cp /home/mklasby/.config/Code/User/workspace
Storage/16f041a7a190a49816b745d0aa180284/redhat.java/jdt_ws/Lab_6_96debe1b/bin ticTacToe_DA.Server
Server is running...
1 player has connected...
2 players have connected, beginning a new game...
Server is running...
```

X-Players terminal

```
Mike, what row should your next X be placed in?
1
Mike, what column should your next X be placed in?
1
Good move, here is the board...
          |col 0|col 1|col 2
          +-----+-----+-----+
          |     |     |     |
   row 0  |     |     |     |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 1  |     |  X  |     |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 2  |     |     |     |
          |     |     |     |
          +-----+-----+-----+

Waiting for opponent to make a move...
```

O-Players terminal

```
Davis, what row should your next O be placed in?
2
Davis, what column should your next O be placed in?
1
Good move, here is the board...
          |col 0|col 1|col 2
          +-----+-----+-----+
          |     |     |     |
   row 0  |     |     |     |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 1  |     |  X  |     |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 2  |     |  O  |     |
          |     |     |     |
          +-----+-----+-----+

Waiting for opponent to make a move...
```
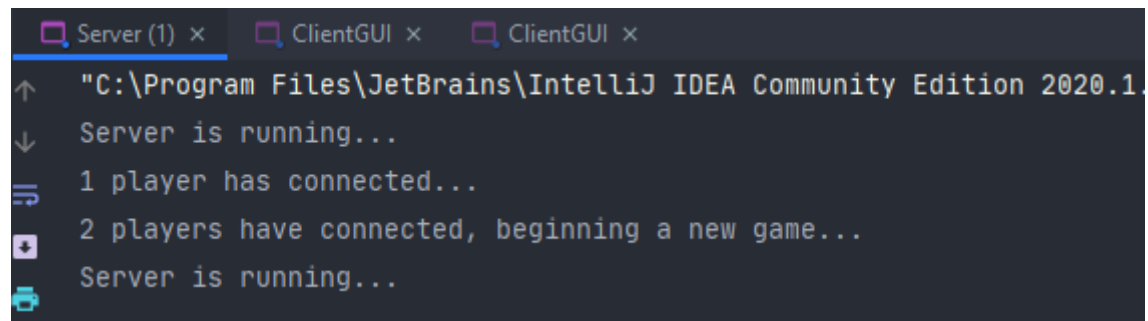
Game

```
Mike, what row should your next X be placed in?
1
Mike, what column should your next X be placed in?
0
Good move, here is the board...
          |col 0|col 1|col 2
          +-----+-----+-----+
          |     |     |     |
   row 0  |     |     |     |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 1  |  X  |  X  |  X  |
          |     |     |     |
          +-----+-----+-----+
          |     |     |     |
   row 2  |     |  O  |  O  |
          |     |     |     |
          +-----+-----+-----+

THE GAME IS OVER: Mike has won!
Connection closed, thanks for playing!
```
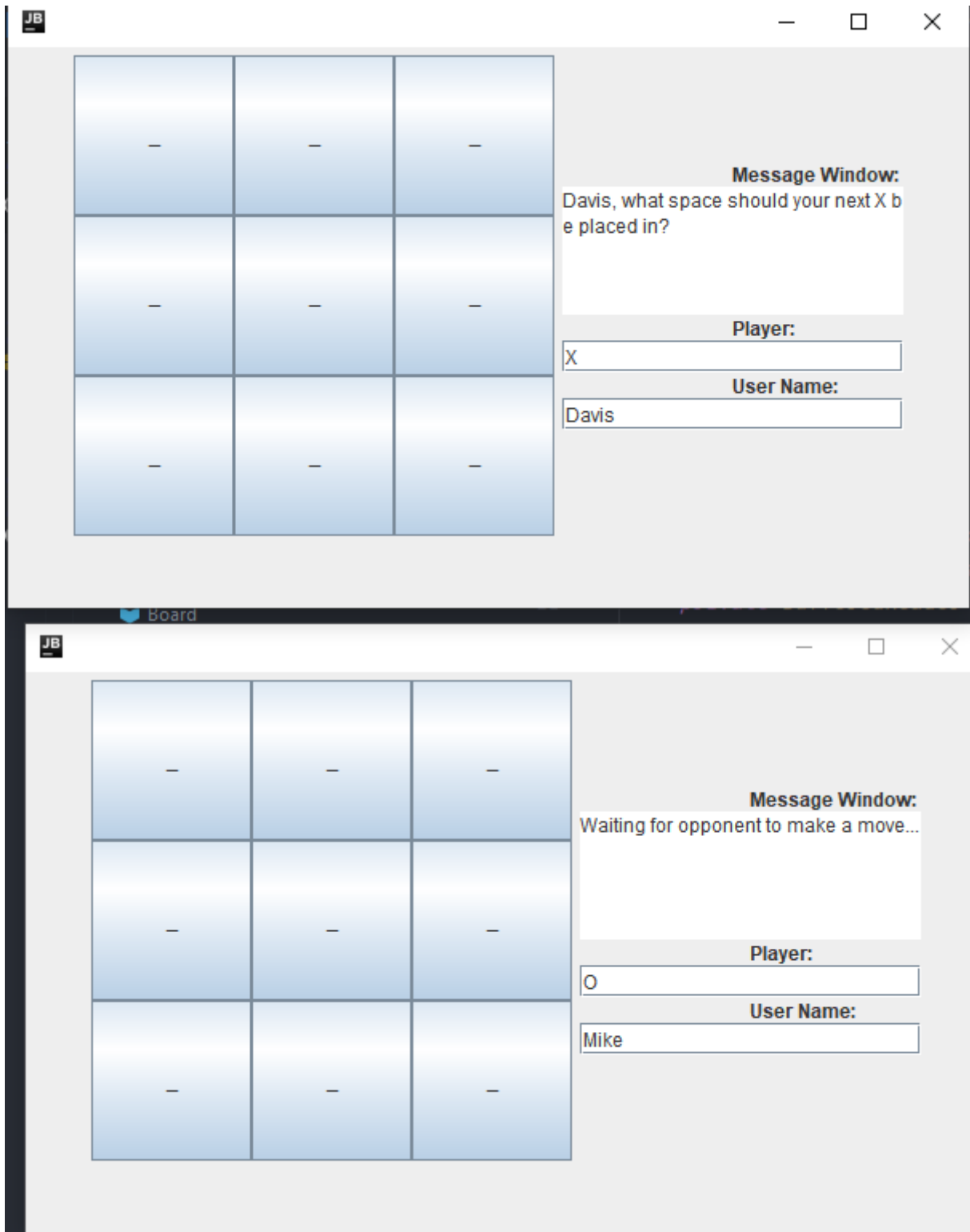
Exercise 5

Program Output

Server:


```
Server (1) ×    ClientGUI ×    ClientGUI ×

    "C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2020.1.
    Server is running...
    1 player has connected...
    2 players have connected, beginning a new game...
    Server is running...
```

Gui screenshots

Message Window:
Davis, what space should your next X be placed in?

Player:
X

User Name:
Davis

Board

Message Window:
Waiting for opponent to make a move...

Player:
O

User Name:
Mike

Window 1

_	_	X
_	X	_
_	_	O

Message Window:

Waiting for opponent to make a move...

Player:

X

User Name:

Davis

Window 2

_	_	X
_	X	_
_	_	O

Message Window:

Mike, what space should your next O be placed in?

Player:

O

User Name:

Mike

Window 1:

Board:
X	_	X
_	X	_
O	O	O

Message Window:
THE GAME IS OVER: Mike has won!

Player:
X

User Name:
Davis

Window 2:

Board:
X	_	X
_	X	_
O	O	O

Message Window:
THE GAME IS OVER: Mike has won!

Player:
O

User Name:
Mike