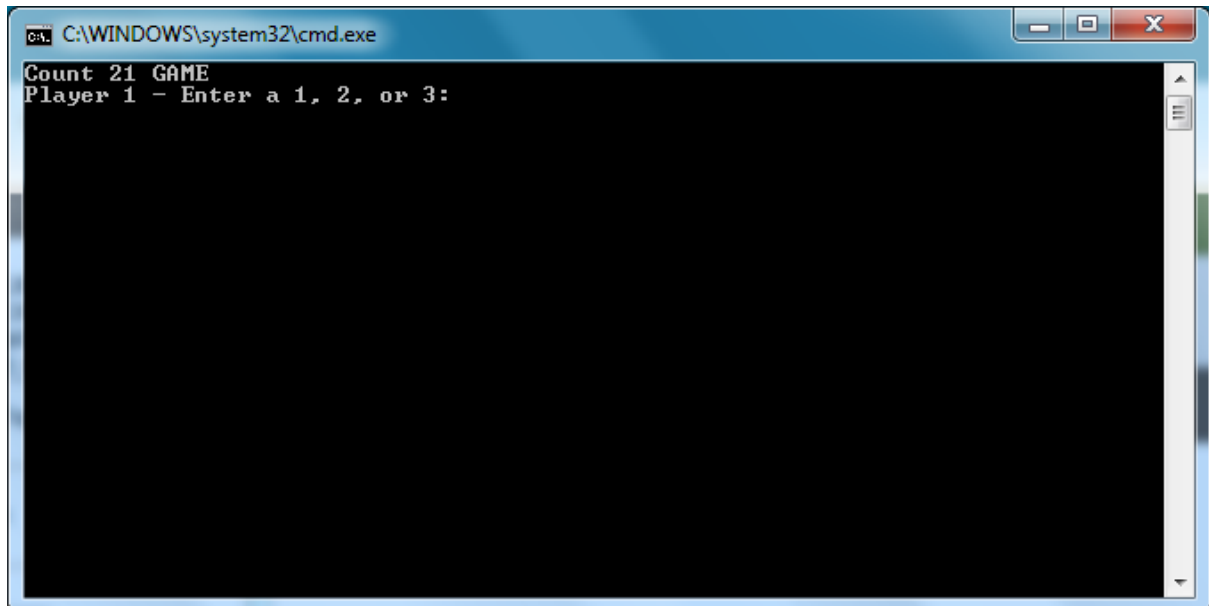# Exercise: Count21.java

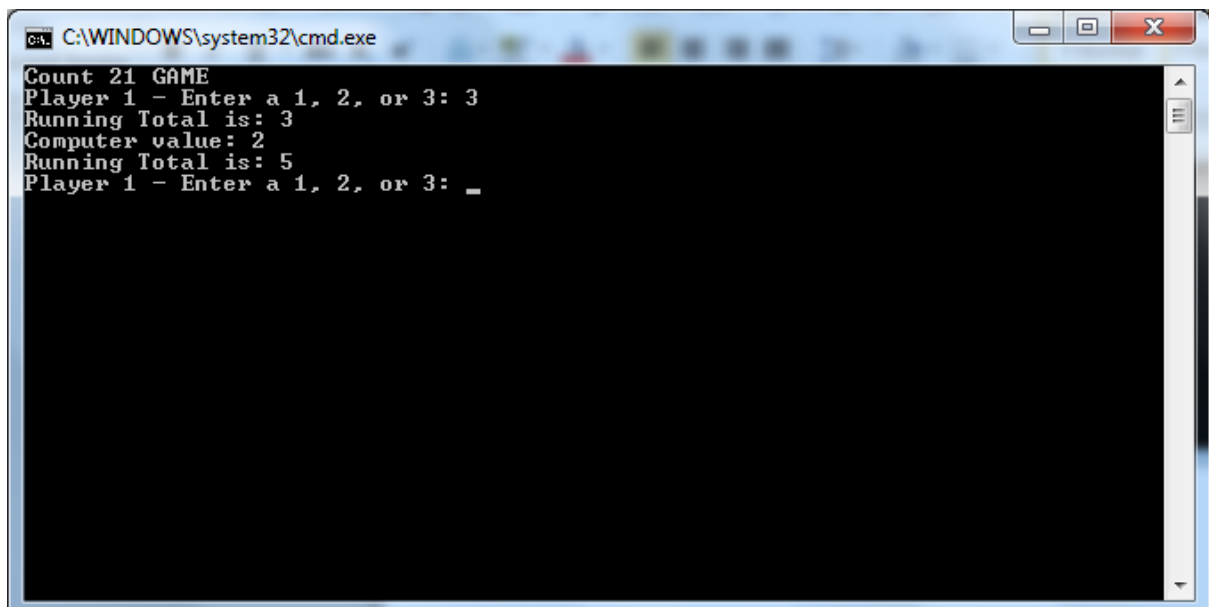Write a Java program to play the following GAME:

Two (2) people play a game of Count 21 by taking turns entering a 1, 2, or 3, which is added to a running total. The player who adds a value that makes the total points exceed 21, loses the game.

Create a game of Count 21 in which a player competes against the computer. On any turn, if the player enters a value other than 1, 2 or 3, force the player to re-enter the value. The output for the game should look similar as the following for the first pass:

Notice above that the user inputted the value 3 – so the Running Total is now 3.

Furthermore, the computer (randomly chooses an input value 1-3. In this sample run, the value was 2 so the Running Total is now 5.

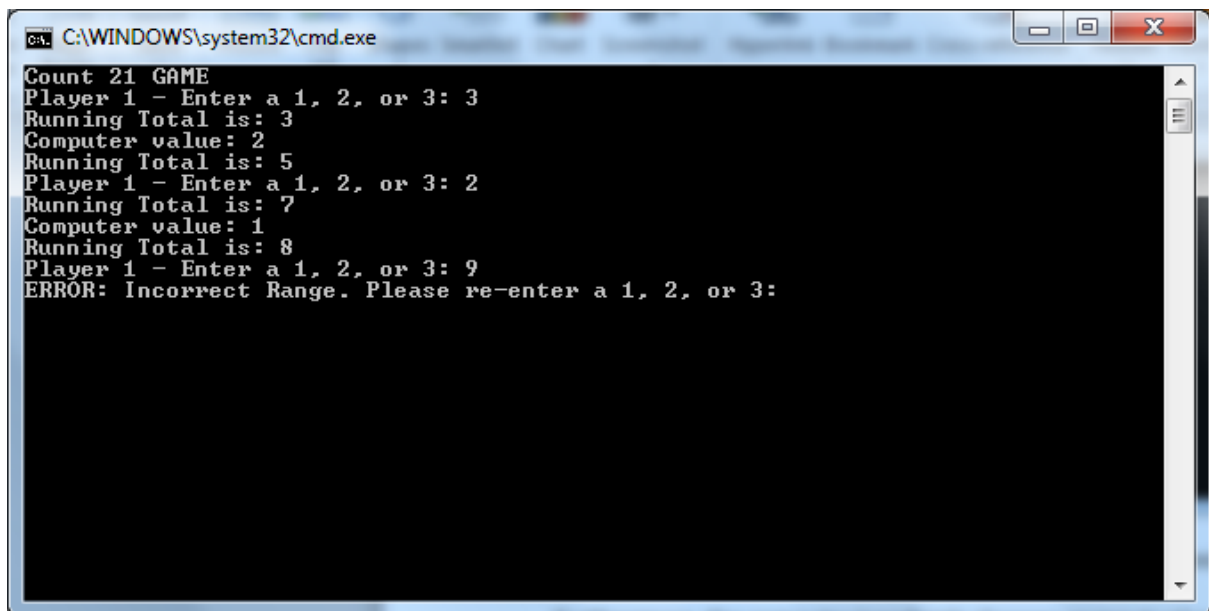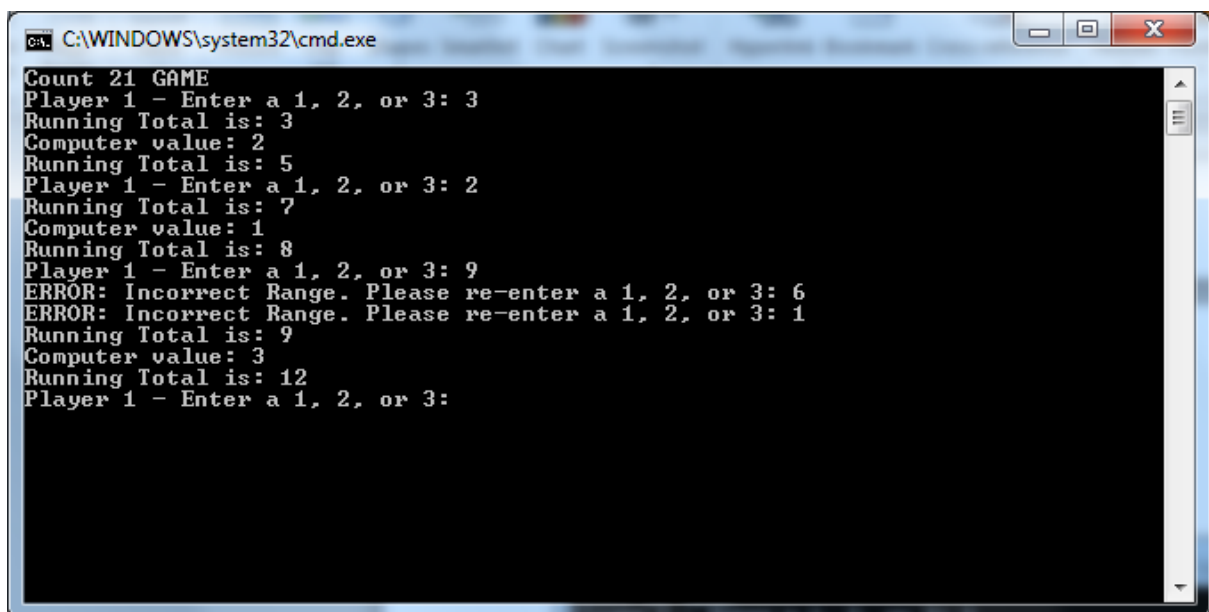Invalid input entered by the Player should NOT be allowed:

```
C:\WINDOWS\system32\cmd.exe

Count 21 GAME
Player 1 - Enter a 1, 2, or 3: 3
Running Total is: 3
Computer value: 2
Running Total is: 5
Player 1 - Enter a 1, 2, or 3: 2
Running Total is: 7
Computer value: 1
Running Total is: 8
Player 1 - Enter a 1, 2, or 3: 9
ERROR: Incorrect Range. Please re-enter a 1, 2, or 3:
```
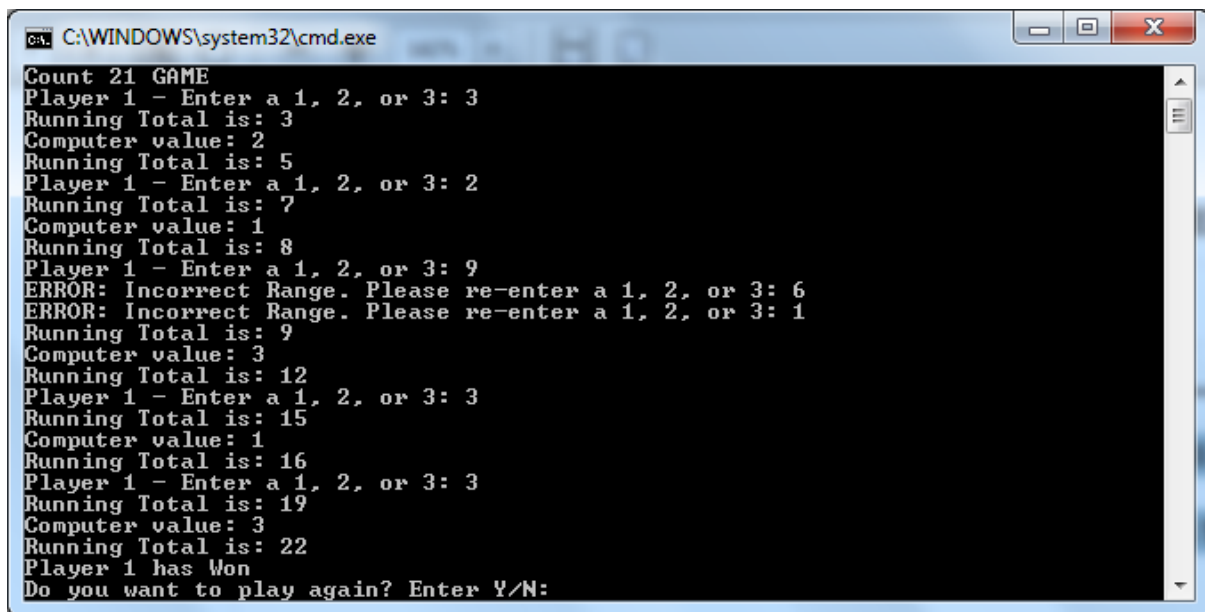
```
C:\WINDOWS\system32\cmd.exe

Count 21 GAME
Player 1 - Enter a 1, 2, or 3: 3
Running Total is: 3
Computer value: 2
Running Total is: 5
Player 1 - Enter a 1, 2, or 3: 2
Running Total is: 7
Computer value: 1
Running Total is: 8
Player 1 - Enter a 1, 2, or 3: 9
ERROR: Incorrect Range. Please re-enter a 1, 2, or 3: 6
ERROR: Incorrect Range. Please re-enter a 1, 2, or 3: 1
Running Total is: 9
Computer value: 3
Running Total is: 12
Player 1 - Enter a 1, 2, or 3:
```
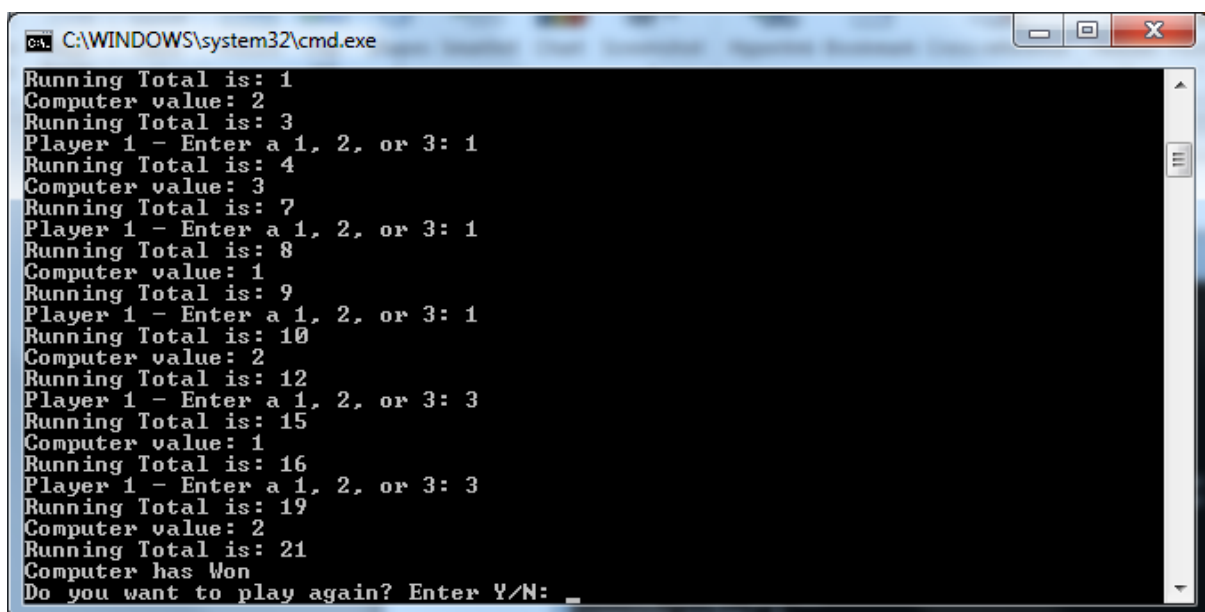
And the end of this sample run:

```
C:\WINDOWS\system32\cmd.exe

Count 21 GAME
Player 1 - Enter a 1, 2, or 3: 3
Running Total is: 3
Computer value: 2
Running Total is: 5
Player 1 - Enter a 1, 2, or 3: 2
Running Total is: 7
Computer value: 1
Running Total is: 8
Player 1 - Enter a 1, 2, or 3: 9
ERROR: Incorrect Range. Please re-enter a 1, 2, or 3: 6
ERROR: Incorrect Range. Please re-enter a 1, 2, or 3: 1
Running Total is: 9
Computer value: 3
Running Total is: 12
Player 1 - Enter a 1, 2, or 3: 3
Running Total is: 15
Computer value: 1
Running Total is: 16
Player 1 - Enter a 1, 2, or 3: 3
Running Total is: 19
Computer value: 3
Running Total is: 22
Player 1 has Won
Do you want to play again? Enter Y/N:
```

Notice:

1. The Player 1 has won
2. The user is prompted whether he wants to play again? If 'y' or 'Y' then, the Game starts again

Here is another sample run where the computer wins:

```
C:\WINDOWS\system32\cmd.exe

Running Total is: 1
Computer value: 2
Running Total is: 3
Player 1 - Enter a 1, 2, or 3: 1
Running Total is: 4
Computer value: 3
Running Total is: 7
Player 1 - Enter a 1, 2, or 3: 1
Running Total is: 8
Computer value: 1
Running Total is: 9
Player 1 - Enter a 1, 2, or 3: 1
Running Total is: 10
Computer value: 2
Running Total is: 12
Player 1 - Enter a 1, 2, or 3: 3
Running Total is: 15
Computer value: 1
Running Total is: 16
Player 1 - Enter a 1, 2, or 3: 3
Running Total is: 19
Computer value: 2
Running Total is: 21
Computer has Won
Do you want to play again? Enter Y/N: _
```