Lab Exercise 2- Looping and Methods

Create the Java Programs based on the following specifications:

1. Create a program that will simulate the card game of 21.
    a. The program will generate random numbers from 1 to 21 to represent the computers move.
    b. The program will generate random numbers for 1 to 11 to represent the users move.
    c. The program will then prompt the user if he or she wants to add another card.
    d. If the user decides to have another card, the program will again generate random numbers from 1 to 11. The user can add more cards as he wants but if he goes over than 21, he will automatically lose.
    e. The number the user got from the first card and the number the user got from the other cards he or she requested will be added and will represent the user's final move.
    f. If the user got a higher card number compared to what the computer has the user wins otherwise the computer wins
    g. If the user got a number that is more than 21, he automatically loses.
    h. The program will prompt the user again if he or she wants to play if the user says no, the program will end.
    i. If the final card number of the user is the same as the computer, a message that says it is a tie will be displayed.
    j. The program should have methods that accepts parameter and returns a value.

Sample Output 1:

```
The card is 8
Your total is 8
Do you want another card (y/n)?  y
The card is 4
Your total is 12
Do you want another card (y/n)?  y
The card is 1
Your total is 13
Do you want another card (y/n)?  y
The card is 8
Your total is 21
Do you want another card (y/n)?  n
The computer's score is 2
You win.
Do you want to play again, Y or N Y
The card is 8
Your total is 8
Do you want another card (y/n)?  y
The card is 7
Your total is 15
Do you want another card (y/n)?  n
The computer's score is 10
You win.
Do you want to play again, Y or N N
```

.

2. Program 2

a) Create another class with an instance method that displays the following:

```
Thank you for playing
*Thank you for playing
**Thank you for playing
***Thank you for playing
****Thank you for playing
*****Thank you for playing
******Thank you for playing
*****Thank you for playing
****Thank you for playing
***Thank you for playing
**Thank you for playing
*Thank you for playing
```

a) Call this instance method in your main program when the first program ends.

Note: You have to use a For Loop

General Specifications:

All programs should have proper prompts and description of output. All numeric output that has decimal points should be rounded to two decimal points except if the program itself specify a different format. All programs should have comments and proper documentation. All variable names should be mnemonic.