Write the interactive Java class Project4 and following the following instructions.

1. Display the following menu to the user:

    ```
    *****************************************
    *                  MENU                 *
    *****************************************
    * 1 - Increment a number by 1.          *
    * 2 - Check if a number is odd or even. *
    * 3 - Decrement a number by 1.          *
    * 4 - Sum 2 numbers.                    *
    *****************************************
    ```

2. After displaying the menu, display the prompt `"Enter your menu selection: "` to the user.
3. Evaluate the user input using an *if…then* statement.
4. If the user input is *1* do the following:
    o   Display the prompt `"Enter an integer: "`.
    o   Increment the user input by 1.
    o   Display the message `"The incremented number is "` followed by the new incremented integer.
5. If the user input is *2* do the following:
    o   Display the prompt `"Enter an integer: "`.
    o   Using an if statement determine if the integer entered by the user is odd or even.
    o   If the number is odd, display the message `"That number is odd."` To the user.
    o   If the number is even, display the message `"That number is even."` To the user.
6. If the user input is *3* do the following:
    o   Display the prompt `"Enter an integer: "`.
    o   Decrement the user input by 1.
    o   Display the message `"The decremented number is "` followed by the new decremented integer.
7. If the user input is *4* do the following:
    o   Display the prompt `"Enter an integer: "`.
    o   Display the prompt `"Enter another integer: "`.
    o   Display the message `"The sum of the two numbers is "` followed by the sum of the two integers.
8. If the user input is not any of the above options, do the following:
    o   Display the message `"That is an invalid menu option!"`

Use lecture comments to determine a good way. Follow all style and documentation conventions. Turn in a listing of your source code, a sample run, and use this page as a cover sheet. Late assignments will not be accepted.

```
C:\>javac Project4.java

C:\>java Project4
*****************************************
*                 MENU                  *
*****************************************
* 1 - Increment a number by 1.          *
* 2 - Check if a number is odd or even. *
* 3 - Decrement a number by 1.          *
* 4 - Sum 2 numbers.                    *
*****************************************
Enter your menu selection: 1
Enter an integer: 10
The incremented number is 11

C:\>java Project4
*****************************************
*                 MENU                  *
*****************************************
* 1 - Increment a number by 1.          *
* 2 - Check if a number is odd or even. *
* 3 - Decrement a number by 1.          *
* 4 - Sum 2 numbers.                    *
*****************************************
Enter your menu selection: 2
Enter an integer: 10
That number is even.

C:\>java Project4
*****************************************
*                 MENU                  *
*****************************************
* 1 - Increment a number by 1.          *
* 2 - Check if a number is odd or even. *
* 3 - Decrement a number by 1.          *
* 4 - Sum 2 numbers.                    *
*****************************************
Enter your menu selection: 3
Enter an integer: 10
The decremented number is 9

C:\>java Project4
*****************************************
*                 MENU                  *
*****************************************
* 1 - Increment a number by 1.          *
* 2 - Check if a number is odd or even. *
* 3 - Decrement a number by 1.          *
* 4 - Sum 2 numbers.                    *
*****************************************
Enter your menu selection: 4
Enter an integer: 10
Enter another integer: 3
The sum of the two numbers is 13

C:\>java Project4
*****************************************
*                 MENU                  *
*****************************************
* 1 - Increment a number by 1.          *
* 2 - Check if a number is odd or even. *
* 3 - Decrement a number by 1.          *
* 4 - Sum 2 numbers.                    *
*****************************************
Enter your menu selection: 5
That is an invalid option!

C:\>
```