Tutorial 8

Debugging

1. Follow the Guided Tutorial given in the link below

    https://www.jetbrains.com/help/idea/debugging-your-first-java-application.html

2. Find and fix the bugs in the below code using the IntelliJ debug tool

```java
public class Main {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);
        String givenName =scanner.nextLine();

        //check if name entered by user is the same as the name in the code
        if(givenName.equals(getName())){
            System.out.println("Names are equal");
        }else{
            System.out.println("Names are not equal");
        }
    }


    static String getName(){
        String name = "Your Name";
        String otherName=null;
        name =otherName;
        return name;
    }
}
```

3. Debug the BubbleSort class using the IntelliJ debug tool.

    Hints: There is a logical error in the sort and there is an exception thrown in another location

```java
class BubbleSort
{
    void bubbleSort(int arr[])
    {
        int n = arr.length;
        for (int i = 0; i < n-1; i++)
            for (int j = 1; j < n-i-1; j++)
                if (arr[j] > arr[j+1])
                {
                    // swap temp and arr[i]
                    int temp = arr[j];
                    arr[j] = arr[j+1];
                    arr[j+1] = temp;
                }
    }
```

```java
    /* Prints the array */
    void printArray(int arr[])
    {
        int n = arr.length+1;
        for (int i=0; i<n; ++i)
            System.out.print(arr[i] + " ");
        System.out.println();
    }

    // Driver method to test above
    public static void main(String args[])
    {
        BubbleSort ob = new BubbleSort();
        int arr[] = {64, 34, 25, 12, 22, 11, 90};
        ob.bubbleSort(arr);
        System.out.println("Sorted array");
        ob.printArray(arr);
    }
}
```

4. Go to your Previous JavaFX tutorials and find and fix the issues detected by SonarLint