Experiment 3

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1. Aim: Write a Java program to calculate the square root of a number entered by the user. Use try-catch to handle invalid inputs (e.g., negative numbers or non-numeric values).

2. Code:

```java
import java.util.Scanner;

public class SquareRootCalculator {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.print("Enter a number: ");
        try {
            double number = sc.nextDouble();
            if (number < 0) {
                System.out.println("Error: Cannot calculate the square root of a negative number.");
            } else {
                System.out.println("Square Root: " + Math.sqrt(number));
            }
        } catch (Exception e) {
            System.out.println("Error: Invalid input. Please enter a numeric value.");
        }
    }
}
```

3. Output:-

```
Enter a number: -16
Error: Cannot calculate the square root of a negative number.
```