Problem 1: Square Root Calculation (Easy Level)

Description:

Write a Java program to calculate the **square root** of a number.

• **Use try-catch** to handle invalid inputs (negative numbers or non-numeric values).

Code:

```
import java.util.Scanner;

class SquareRootCalculator {
   public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a number: ");
        try {
            double number = scanner.nextDouble();
            if (number < 0) {
                throw new IllegalArgumentException("Error: Cannot calculate the square root of a negative number.");
        }
        System.out.println("Square Root: " + Math.sqrt(number));
        } catch (Exception e) {
            System.out.println("Error: Invalid input. Please enter a valid number.");
        }
    }
}</pre>
```

Output:

```
C □ ② ∃ ② :

↑ "C:\Program Files\Java\jdk-22\bin\java.exe" "-javaa
Enter a number: -9
Error: Invalid input. Please enter a valid number.

→ Process finished with exit code 0
□
```