

Debug

ModifiedAgeGuess [Java Application]

- ModifiedAgeGuess at localhost:57887
 - Thread [main] (Suspended (breakpoint at line 37 in ModifiedAgeGuess.main(String[])) line: 37
 - ModifiedAgeGuess.main(String[]) line: 37

AgeGuess.java

```
17 // Read in the name entered by user
18 System.out.println("Enter a name: ");
19 name = scan.nextLine();
20
21 // Read in the age guess entered by user
22 System.out.println("Guess " + name + "'s age:");
23 ageGuess = scan.nextInt();
24
25 // Stop scan from awaiting further input
26 scan.close();
27
28 System.out.println("You guessed: " + ageGuess);
29 System.out.println();
30
31 // CONDITIONAL STATEMENTS
32
33
34 if (ageGuess != age) {
35     System.out.println("You guessed wrong! ");
36
37     if (ageGuess > age) {
38         System.out.println(name + " is younger.");
39     } else {
40         System.out.println(name + " is older.");
41     }
42
43 } else {
44     System.out.println("You guessed correctly!");
45 }
46
47 System.out.println();
48 System.out.println(name + "'s actual age: " + age);
49
50 }
51
52 }
53
```

Variables

Name	Value
no method return value	
args	String[0] (id=15)
scan	Scanner (id=18)
name	"Shirley" (id=23)
ageGuess	99
age	4
generator	Random (id=27)

Console

ModifiedAgeGuess [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_91.jdk/Contents/Home/bin/java (Jul 16, 2020 8:25:53 PM)

```
objc[28771]: Class JavaLaunchHelper is implemented in both /Library/Java/JavaVirtualMachines/jdk1.8.0_91.jdk/Contents/Home/
Enter a name: Shirley
Guess Shirley's age:99
You guessed: 99

You guessed wrong!
```

Debug console showing the execution of a Java application named ModifiedAgeGuess. The application is running on localhost:57887. The main thread is suspended at line 48 in the main method.

The code being debugged is as follows:

```
18 // Read in the name entered by user
19 System.out.print("Enter a name: ");
20 name = scan.nextLine();
21
22 // Read in the age guess entered by user
23 System.out.print("Guess " + name + "'s age:");
24 ageGuess = scan.nextInt();
25
26 // Stop scan from awaiting further input
27 scan.close();
28
29 System.out.println("You guessed: " + ageGuess);
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42 } else {
43     System.out.print("You guessed correctly!");
44 }
45
46 System.out.println();
47 System.out.println(name + "'s actual age: " + age);
48
49
50 }
51
52 }
53
```

The Variables window shows the following state:

Name	Value
no method return value	
args	String[] (id=15)
scan	Scanner (id=18)
name	"Shirley" (id=23)
ageGuess	99
age	4
generator	Random (id=27)

The Console window shows the following output:

```
ModifiedAgeGuess [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_91.jdk/Contents/Home/bin/java (Jul 16, 2020 8:25:53 PM)
Enter a name: Shirley
Guess Shirley's age:99
You guessed: 99
|
You guessed wrong! Shirley is younger.
```

The screenshot displays an IDE with the following components:

- Debugger:** Shows the state of the application. The selected item is `<terminated>ModifiedAgeGuess [Java Application]`. Below it, it indicates `<disconnected>ModifiedAgeGuess at localhost:57887` and `<terminated, exit value: 0>/Library/Java/JavaVirtualMachines/`.
- Source Editor:** Displays the code in `*AgeGuess.java`. The code is as follows:

```
18 // Read in the name entered by user
19 System.out.print("Enter a name: ");
20 name = scan.nextLine();
21
22 // Read in the age guess entered by user
23 System.out.print("Guess " + name + "'s age:");
24 ageGuess = scan.nextInt();
25
26 // Stop scan from awaiting further input
27 scan.close();
28
29 System.out.println("You guessed: " + ageGuess);
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39     } else {
40         System.out.println(name + " is older.");
41     }
42
43 } else {
44     System.out.print("You guessed correctly!");
45 }
46
47 System.out.println();
48 System.out.println(name + "'s actual age: " + age);
49
50 }
51
52 }
53
```
- Variables Panel:** Shows a search bar with the text `<Choose a previously entered expression>`.
- Console:** Displays the output of the application:

```
<terminated> ModifiedAgeGuess [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_91.jdk/Contents/Home/bin/java (Jul 16, 2020 8:25:53 PM - 8:27:02 PM)
Guess Shirley's age:99
You guessed: 99

You guessed wrong! Shirley is younger.

Shirley's actual age: 4
```