

Steps to Debug a Java Code in STS

1. **Start the Program in Debug Mode:** Run your Java program in debug mode. This can usually be done by selecting the "Debug As" or "Run As" option and choosing "Java Application" in your IDE (in this case, STS).
2. **Switch to Debug Perspective:** Once the program is running in debug mode, your IDE (STS) will typically switch to the debug perspective automatically. If not, you can manually switch to the debug perspective by going to "Window" > "Perspective" > "Open Perspective" > "Debug".
3. **Navigate to Debugging Tools:** In the debug perspective, you'll have access to various debugging tools. These tools allow you to control the execution flow of your program and inspect variables.
4. **Step Into:** Use the "Step Into" command (usually mapped to F5) to step into methods being called by your program. This allows you to trace the execution path and understand how your program behaves.
5. **Step Over:** Use the "Step Over" command (usually mapped to F6) to execute the current line of code and move to the next line without stepping into any method calls on that line.
6. **Step Return:** Use the "Step Return" command (usually mapped to F7) to step out of the current method and return to the caller.
7. **Inspect Variables:** While debugging, you can inspect the values of variables by hovering over them in the code editor or by adding them to the "Expressions" view. This allows you to monitor the state of your program as it executes.
8. **Debug Console:** The debug console provides information about the execution of your program, including stack traces, output from `System.out.println()` statements, and other debugging messages.
9. **Evaluate Expressions:** You can evaluate expressions during debugging using the "Expressions" view or the "Display" view. This can help you understand the state of your program and diagnose issues.
10. **Terminate Debug Session:** Once you've finished debugging, you can terminate the debug session by clicking the terminate button (a red square icon) or by pressing F2.