

```
1 import io.opentelemetry.api.GlobalOpenTelemetry;
2 import io.opentelemetry.api.trace.Span;
3 import io.opentelemetry.api.trace.Tracer;
4 import io.opentelemetry.api.trace.TracerProvider;
5 import io.opentelemetry.context.Scope;
6
7 import java.io.*;
8 import java.net.ServerSocket;
9 import java.net.Socket;
10 import java.util.UUID;
11
12 public class server {
13     public static void main(String[] args) {
14         System.setProperty("otel.tracer.provider", "
15         io.opentelemetry.api.trace.propagation.
16         B3Propagator$Factory");
17
18         try {
19             // Create a server socket listening on
20             port 8080
21             ServerSocket serverSocket = new
22             ServerSocket(8080);
23             System.out.println("Server is listening
24             on port 8080...");
25
26             while (true) {
27                 // Wait for a client to connect
28                 Socket clientSocket = serverSocket.
29                 accept();
30                 System.out.println("Client connected
31                 .");
32
33                 // Start a new span for the server
34                 operation
35                 TracerProvider tracerProvider =
36                 GlobalOpenTelemetry.getTracerProvider();
37                 Tracer tracer = tracerProvider.get("
38                 server-tracer");
39
40                 // Start a span
41                 Span span = tracer.spanBuilder("

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31 server-operation").startSpan();
32
33         // Create a scope to manage the span's lifecycle
34         try (Scope scope = span.makeCurrent
35             ()) {
36             // Process the client's request
37             processClientRequest(clientSocket
38             );
39             finally {
40                 // End the span when the operation is complete
41                 span.end();
42             }
43             // Close the client socket
44             clientSocket.close();
45         } catch (IOException e) {
46             e.printStackTrace();
47         }
48     }
49
50     private static void processClientRequest(Socket
51     clientSocket) throws IOException {
52         // Create input stream for communication with the client
53         BufferedReader in = new BufferedReader(new
54         InputStreamReader(clientSocket.getInputStream()));
55
56         // Read the number of files to expect
57         int numFiles;
58         try {
59             numFiles = Integer.parseInt(in.readLine
60             ());
61         } catch (NumberFormatException e) {
62             System.err.println("Error reading the
63             number of files from the client.");
64             return;
65         }
66         System.out.println("Expecting " + numFiles +

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62 " files from the client.");
63
64     // Receive files from the client
65     for (int i = 0; i < numFiles; i++) {
66         // Generate a random file name
67         String fileName = UUID.randomUUID().
        toString() + ".txt";
68
69         // Read the file content from the client
70         StringBuilder fileContent = new
        StringBuilder();
71         String line;
72         while ((line = in.readLine()) != null
        && !line.equals("END_OF_FILE")) {
73             fileContent.append(line).append("\n"
        );
74         }
75
76         // Save the file content to a file
77         try (FileOutputStream fileOutputStream
        = new FileOutputStream("received_" + fileName)) {
78             fileOutputStream.write(fileContent.
        toString().getBytes());
79             System.out.println("File content
        saved to received_" + fileName);
80         } catch (IOException e) {
81             System.err.println("Error saving
        file content to received_" + fileName);
82             e.printStackTrace();
83         }
84     }
85
86     // Close the input stream
87     in.close();
88 }
89 }
90
```