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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", "
io.opentelemetry.api.trace.propagation.
B3Propagator$Factory");
15
16         try {
17             // Create a server socket listening on
port 8080
18             ServerSocket serverSocket = new
ServerSocket(8080);
19             System.out.println("Server is listening
on port 8080...");
20
21             while (true) {
22                 // Wait for a client to connect
23                 Socket clientSocket = serverSocket.
accept();
24                 System.out.println("Client connected
.");
25
26                 // Start a new span for the server
operation
27                 TracerProvider tracerProvider =
GlobalOpenTelemetry.getTracerProvider();
28                 Tracer tracer = tracerProvider.get("
server-tracer");
29
30                 // Manually create a span for the
server operation
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31         Span span = tracer.spanBuilder("
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
44             // Close the client socket
45             clientSocket.close();
46         }
47     } catch (IOException e) {
48         e.printStackTrace();
49     }
50
51     private static void processClientRequest(Socket
52     clientSocket) throws IOException {
53         // Create input stream for communication with
the client
54         BufferedReader in = new BufferedReader(new
55         InputStreamReader(clientSocket.getInputStream()));
56
57         // Read the number of files to expect
58         int numFiles;
59         try {
60             numFiles = Integer.parseInt(in.readLine
61             ());
62         } catch (NumberFormatException e) {
63             System.err.println("Error reading the
64             number of files from the client.");
65             return;
66         }

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62         System.out.println("Expecting " + numFiles
        + " 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
```