**Ex:6 - Computer Network Lab**

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***HTTP***

**server.c**

import java.io.\*;

import java.net.\*;

import java.nio.file.Files;

import java.nio.file.Path;

import java.nio.file.Paths;

public class SimpleHttpServer {

private static final int PORT = 3702;

private static final String DOCUMENT\_ROOT = "path/to/your/document/root";

public static void main(String[] args) {

try (ServerSocket serverSocket = new ServerSocket(PORT)) {

System.out.println("Server listening on port " + PORT);

while (true) {

try (Socket clientSocket = serverSocket.accept()) {

handleClient(clientSocket);

} catch (IOException e) {

System.err.println("Error handling client: " + e.getMessage());

}

}

} catch (IOException e) {

System.err.println("Server error: " + e.getMessage());

}

}

private static void handleClient(Socket clientSocket) {

try (BufferedReader in = new BufferedReader(new InputStreamReader(clientSocket.getInputStream()));

PrintWriter out = new PrintWriter(clientSocket.getOutputStream(), true)) {

StringBuilder request = new StringBuilder();

String line;

while (!(line = in.readLine()).isEmpty()) {

request.append(line).append("\n");

}

System.out.println("Request:\n" + request.toString());

String requestLine = request.toString().split("\n")[0];

String[] requestParts = requestLine.split(" ");

String method = requestParts[0];

String path = requestParts[1];

String responseBody;

String responseStatus;

if ("GET".equalsIgnoreCase(method)) {

if ("/".equals(path)) {

responseBody = "<html><body><h1>Welcome to my website!</h1></body></html>\n";

responseStatus = "HTTP/1.1 200 OK";

} else if ("/about".equals(path)) {

responseBody = "<html><body><h1>About Us</h1><p>This is the about page.</p></body></html>\n";

responseStatus = "HTTP/1.1 200 OK";

} else {

Path filePath = Paths.get(DOCUMENT\_ROOT, path);

if (Files.exists(filePath) && !Files.isDirectory(filePath)) {

byte[] fileBytes = Files.readAllBytes(filePath);

responseBody = new String(fileBytes);

responseStatus = "HTTP/1.1 200 OK";

} else {

responseBody = "<html><body><h1>404 Not Found</h1></body></html>\n";

responseStatus = "HTTP/1.1 404 Not Found";

}

}

} else {

responseBody = "<html><body><h1>405 Method Not Allowed</h1></body></html>\n";

responseStatus = "HTTP/1.1 405 Method Not Allowed";

}

String response = responseStatus + "\r\n" +

"Content-Type: text/html\r\n" +

"Content-Length: " + responseBody.length() + "\r\n" +

"Connection: close\r\n" +

"\r\n" +

responseBody;

out.print(response);

out.flush();

} catch (IOException e) {

System.err.println("Error handling client: " + e.getMessage());

}

}

}

**Output:**

