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KOD SERWERA

```
import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.io.PrintStream;
import java.net.InetAddress;
import java.net.ServerSocket;
import java.net.Socket;
import java.net.SocketException;
import java.util.Date;

public class server {
    public static void main(String[] args) {
        ServerSocket server;
        Socket socket;
        String host = "localhost";
        PrintStream streamOut;
        BufferedReader streamIn;
        String url;

        if (args.length > 0) {
            host = args[0];
        }

        try {
            server = new ServerSocket(8080);
            int clientCount = 0;
            while (clientCount < 5) {
                System.out.println("Waiting for connection");
                socket = server.accept();
                System.out.println("Client connected");
                Thread t = new ConnectionHandler(socket);
                t.start();
                clientCount++;
            }
        } catch (IOException e) {
            System.err.println(e);
        }
    }

    private static class ConnectionHandler extends Thread {
        private Socket socket;

        public ConnectionHandler(Socket socket) {
            this.socket = socket;
        }

        public void run() {
            PrintStream streamOut = null;
```

```

BufferedReader streamIn = null;
String url;

try {
    streamIn = new BufferedReader(new InputStreamReader(socket.getInputStream()));
    streamOut = new PrintStream(socket.getOutputStream());

    while ((url = streamIn.readLine()) != null) {
        System.out.println(url);
        streamOut.println("<html><body>");
        streamOut.println("<h1>Server Response</h1>");
        streamOut.println("<p>URL: " + url + "</p>");
        streamOut.println("<p>Date: " + new Date() + "</p>");
        InetAddress address = socket.getLocalAddress();
        int port = socket.getLocalPort();
        streamOut.println("<p>Server IP Address: " + address.getHostAddress() + "</p>");
        streamOut.println("<p>Server Port: " + port + "</p>");
        streamOut.println("</body></html>");
        streamOut.flush();
        break;
    }

    socket.close();
    System.out.println("Client disconnected");
} catch (SocketException e) {
    System.out.println("Connection lost");
} catch (IOException e) {
    System.err.println(e);
} finally {
    try {
        if (streamIn != null) {
            streamIn.close();
        }
        if (streamOut != null) {
            streamOut.close();
        }
        if (socket != null) {
            socket.close();
        }
    } catch (IOException e) {
        System.err.println(e);
    }
}
}
}
}

```

KOD KLIENTA

```
using System;
using System.IO;
using System.Net.Sockets;

class Program
{
    static void Main(string[] args)
    {
        TcpClient socket = null;
        string host = "localhost";
        StreamReader streamIn = null;
        StreamWriter streamOut = null;
        string url;

        try
        {
            socket = new TcpClient(host, 8080);
            streamIn = new StreamReader(socket.GetStream());
            streamOut = new StreamWriter(socket.GetStream());

            Console.WriteLine("Server connected.");
            Console.Write("Enter URL: ");

            while (true)
            {
                url = Console.ReadLine();

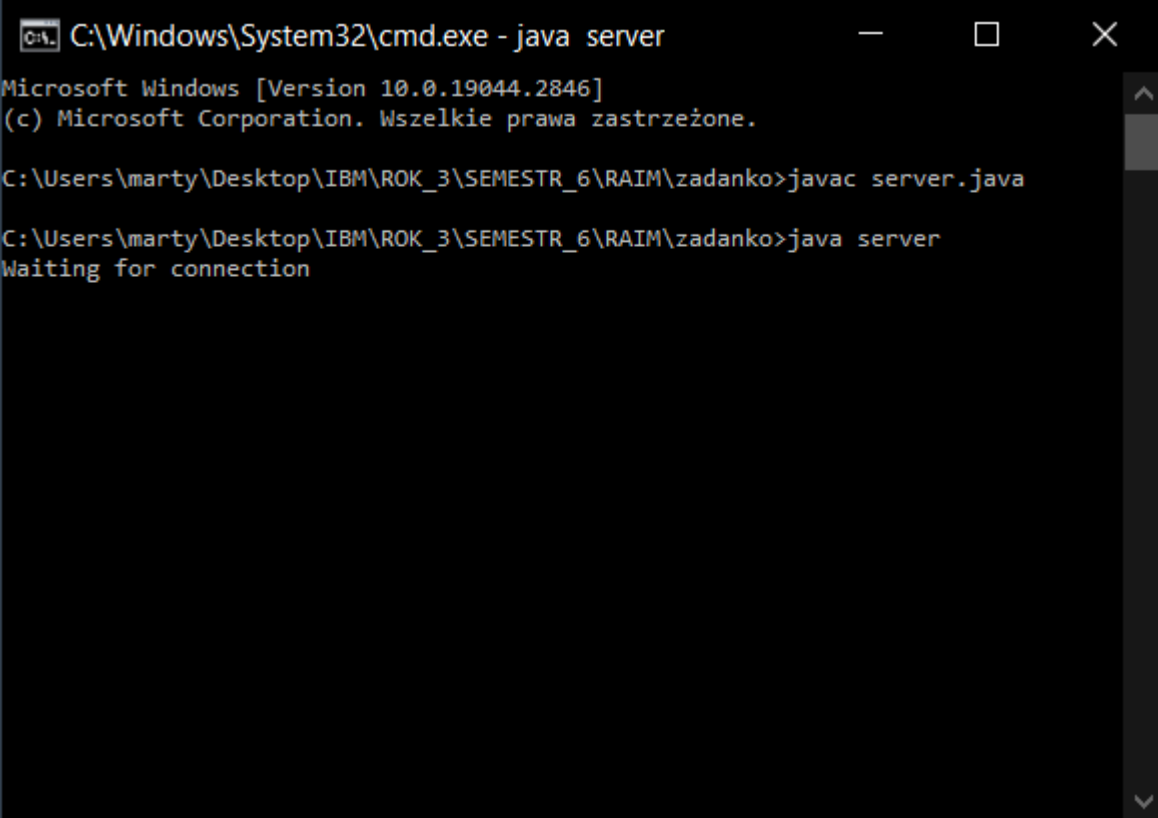
                // Wysyłanie żądania GET do serwera
                streamOut.WriteLine("GET " + url + " HTTP/1.1");
                streamOut.WriteLine("Host: " + host);
                streamOut.WriteLine();
                streamOut.Flush();

                // Odczytywanie danych zwróconych przez serwer
                string line;
                while ((line = streamIn.ReadLine()) != null)
                {
                    Console.WriteLine(line);
                }
            }
        }
        catch (Exception ex)
        {
            Console.WriteLine("Error: " + ex.Message);
        }
        finally
        {
            if (socket != null)
            {
                socket.Close();
            }
        }
    }
}
```

```
        if (streamIn != null)
        {
            streamIn.Close();
        }
        if (streamOut != null)
        {
            streamOut.Close();
        }
    }
}
```

DZIAŁANIE PROGRAMU

SERWER



```
C:\Windows\System32\cmd.exe - java server
Microsoft Windows [Version 10.0.19044.2846]
(c) Microsoft Corporation. Wszelkie prawa zastrzeżone.

C:\Users\marty\Desktop\IBM\ROK_3\SEMESTR_6\RAIM\zadanko>javac server.java

C:\Users\marty\Desktop\IBM\ROK_3\SEMESTR_6\RAIM\zadanko>java server
Waiting for connection
```

KLIENT

```
C:\Users\marty\Desktop\IBM\ROK_3\SEMESTR_6\RAI...
Server connected.
Enter URL: https://www.wp.pl
<html><body>
<h1>Server Response</h1>
<p>URL: GET https://www.wp.pl HTTP/1.1</p>
<p>Date: Fri May 05 19:52:36 CEST 2023</p>
<p>Server IP Address: 0:0:0:0:0:0:1</p>
<p>Server Port: 8080</p>
</body></html>
```

SERWER

```
C:\Windows\System32\cmd.exe - java server
Microsoft Windows [Version 10.0.19044.2846]
(c) Microsoft Corporation. Wszelkie prawa zastrzeżone.

C:\Users\marty\Desktop\IBM\ROK_3\SEMESTR_6\RAIM\zadanko>javac server.java

C:\Users\marty\Desktop\IBM\ROK_3\SEMESTR_6\RAIM\zadanko>java server
Waiting for connection
Client connected
Waiting for connection
GET https://www.wp.pl HTTP/1.1
Client disconnected
```