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Lab 10

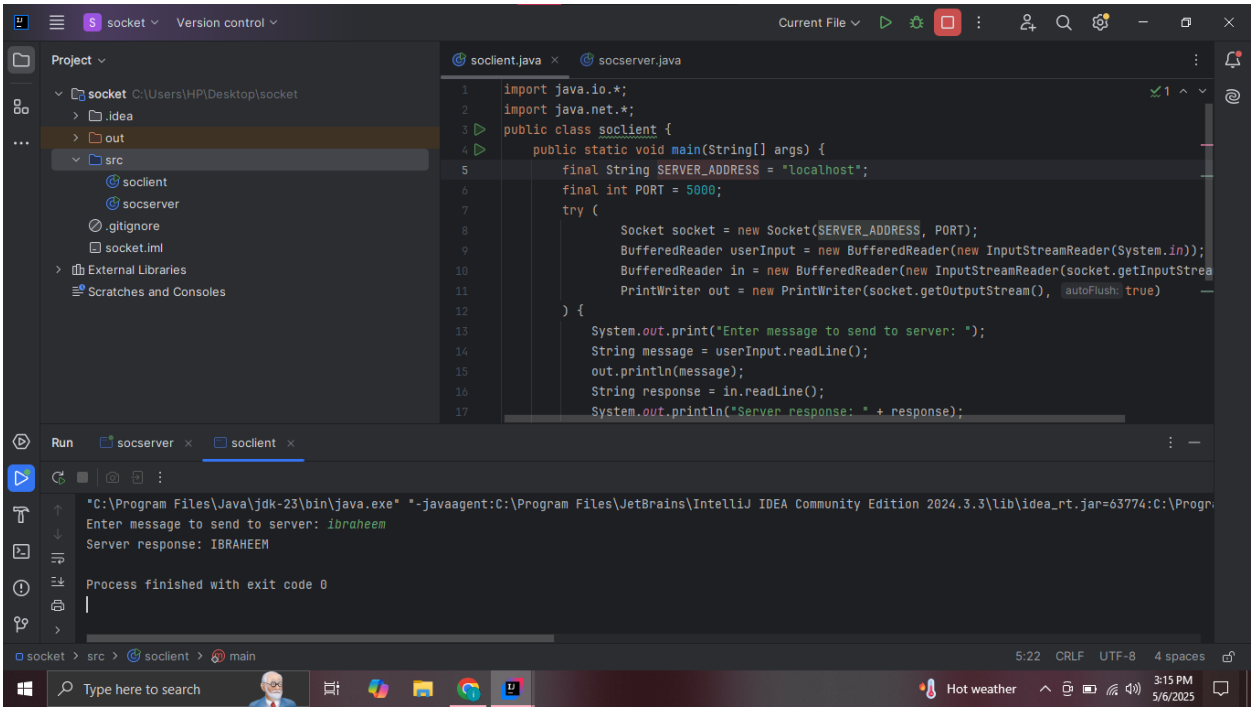
Server code :

```
import java.io.*;
import java.net.*;

public class socserver {
    public static void main(String[] args) {
         int PORT = 5000;
        try (ServerSocket serverSocket = new ServerSocket(PORT)) {
            System.out.println("Server started. Listening on port " + PORT);
            while (true) {
                try (
                        Socket clientSocket = serverSocket.accept();
                        BufferedReader in = new BufferedReader(new
InputStreamReader(clientSocket.getInputStream()));
                        PrintWriter out = new
PrintWriter(clientSocket.getOutputStream(), true)
                ) {
                    System.out.println("Client connected: " +
clientSocket.getInetAddress());

                    String message = in.readLine();
                    System.out.println("Received from client: " + message);

                    String upperCaseMessage = message.toUpperCase();
                    out.println(upperCaseMessage);

                    System.out.println("Sent to client: " +
upperCaseMessage);
                } catch (IOException e) {
                    System.err.println("Error communicating with client: " +
e.getMessage());
                }
            }

        } catch (IOException e) {
            System.err.println("Server exception: " + e.getMessage());
        }
    }
}
```

client code :

```java
import java.io.*;
import java.net.*;
public class soclient {
    public static void main(String[] args) {
        final String SERVER_ADDRESS = "localhost";
        final int PORT = 5000;
        try (
                Socket socket = new Socket(SERVER_ADDRESS, PORT);
                BufferedReader userInput = new BufferedReader(new
InputStreamReader(System.in));
                BufferedReader in = new BufferedReader(new
InputStreamReader(socket.getInputStream()));
                PrintWriter out = new PrintWriter(socket.getOutputStream(),
true)
        ) {
            System.out.print("Enter message to send to server: ");
            String message = userInput.readLine();
            out.println(message);
            String response = in.readLine();
            System.out.println("Server response: " + response);
        } catch (UnknownHostException e) {
            System.err.println("Unknown host: " + SERVER_ADDRESS);
        } catch (IOException e) {
            System.err.println("I/O Error: " + e.getMessage());
        }
    }


}
```

Output :



Task 2 :

Server code :

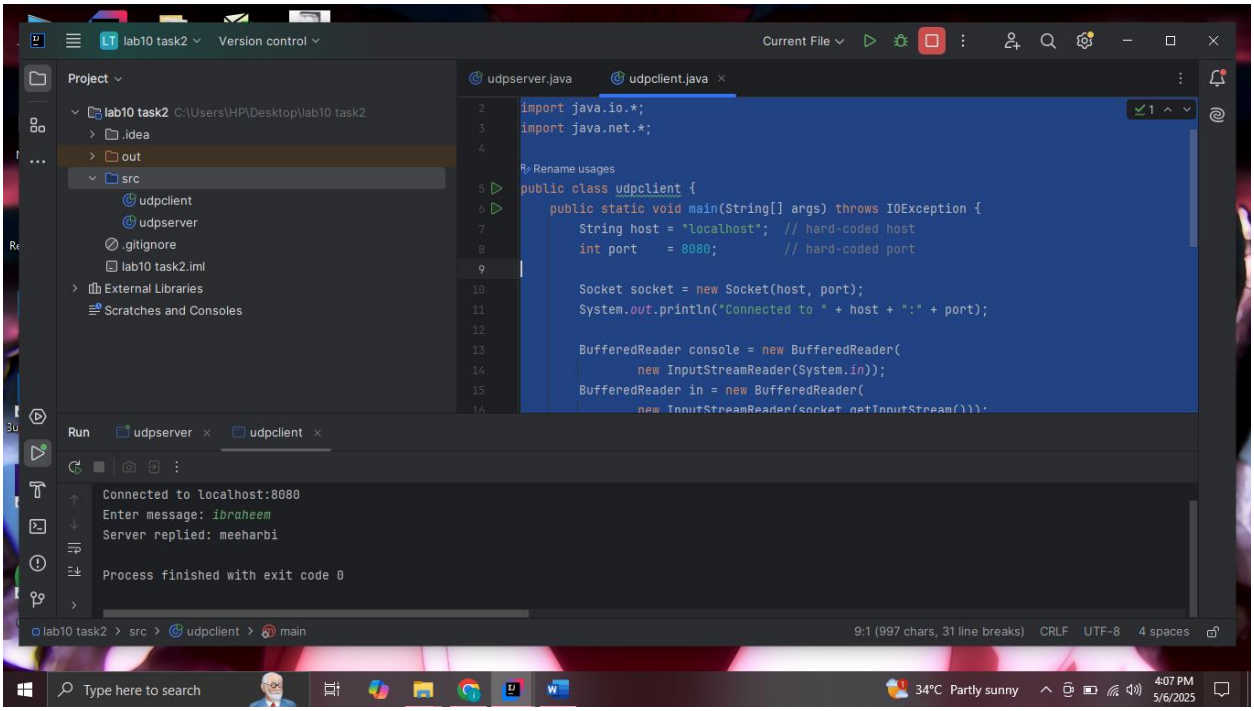
```
// ReverseServer.java
import java.io.*;
import java.net.*;

public class udpserver {
    public static void main(String[] args) throws IOException {
        int port = 8080;  // hard-coded port
        ServerSocket serverSocket = new ServerSocket(port);
        System.out.println("Server listening on port " + port + "...");

        while (true) {
            Socket clientSocket = serverSocket.accept();
            System.out.println("Client connected: " +
clientSocket.getRemoteSocketAddress());

            BufferedReader in = new BufferedReader(
                    new InputStreamReader(clientSocket.getInputStream()));
            PrintWriter out = new PrintWriter(
                    clientSocket.getOutputStream(), true);

            String line = in.readLine();
            System.out.println("Received: " + line);

            String reversed = new StringBuilder(line).reverse().toString();
            out.println(reversed);
```

```
            System.out.println("Sent:     " + reversed);

            in.close();
            out.close();
            clientSocket.close();
        }
    }
}
```

Client code :

```
// ReverseClient.java
import java.io.*;
import java.net.*;

public class udpclient {
    public static void main(String[] args) throws IOException {
        String host = "localhost";  // hard-coded host
        int port    = 8080;         // hard-coded port

        Socket socket = new Socket(host, port);
        System.out.println("Connected to " + host + ":" + port);

        BufferedReader console = new BufferedReader(
                new InputStreamReader(System.in));
        BufferedReader in = new BufferedReader(
                new InputStreamReader(socket.getInputStream()));
        PrintWriter out = new PrintWriter(
                socket.getOutputStream(), true);

        System.out.print("Enter message: ");
        String message = console.readLine();
        out.println(message);

        String reply = in.readLine();
        System.out.println("Server replied: " + reply);

        console.close();
        in.close();
        out.close();
        socket.close();
    }
}
```

Output :


lab10 task2
Version control
Current File
Project
lab10 task2 C:\Users\HP\Desktop\lab10 task2
.idea
out
src
udpclient
udpserver
.gitignore
lab10 task2.iml
External Libraries
Scratches and Consoles
udpserver.java
udpclient.java
import java.io.*;
import java.net.*;
Rename usages
public class udpclient {
public static void main(String[] args) throws IOException {
String host = "localhost"; // hard-coded host
int port = 8080; // hard-coded port
Socket socket = new Socket(host, port);
System.out.println("Connected to " + host + ":" + port);
BufferedReader console = new BufferedReader(
new InputStreamReader(System.in));
BufferedReader in = new BufferedReader(
Run
udpserver
udpclient
Connected to localhost:8080
Enter message: ibraheem
Server replied: meeharbi
Process finished with exit code 0
lab10 task2 > src > udpclient > main
9:1 (997 chars, 31 line breaks)
CRLF
UTF-8
4 spaces
Type here to search
34°C Partly sunny
4:07 PM
5/6/2025