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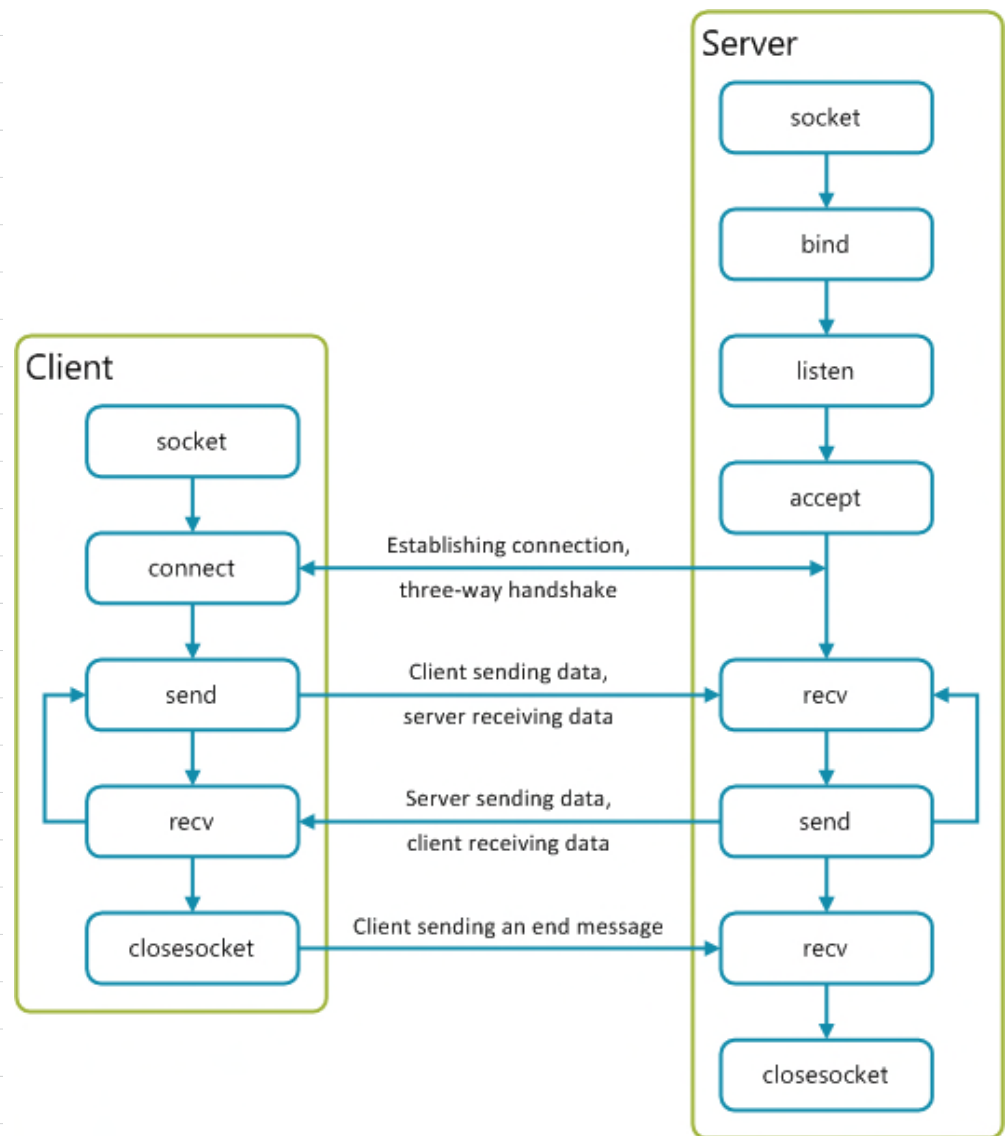
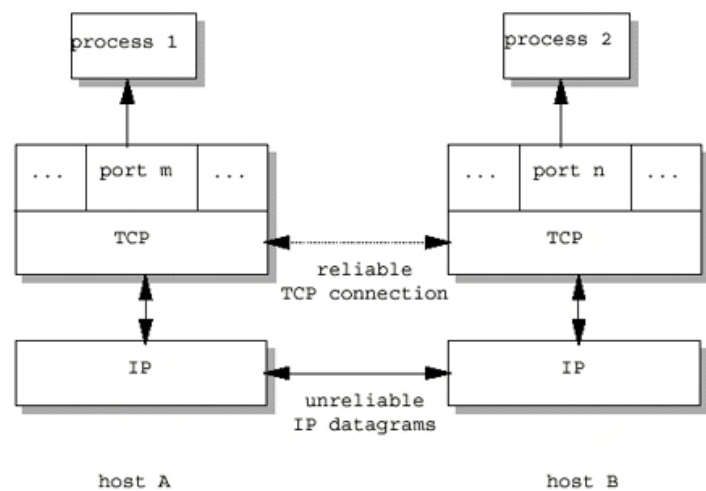
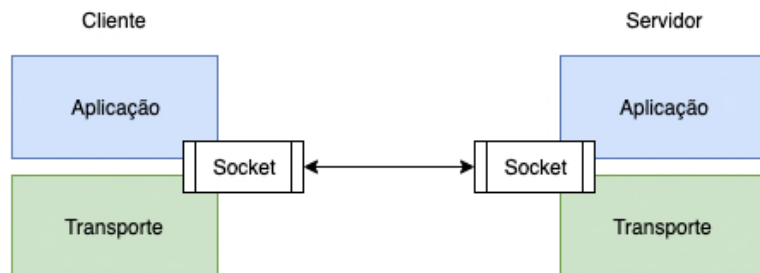
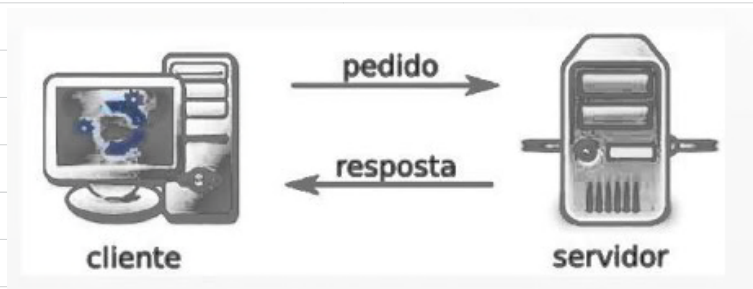
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```

1 package br.principal;
2
3 import java.io.BufferedReader;
4
5
6
7
8
9 public class TCPServer {
10
11     public static void main(String[] args) throws Exception{
12
13         String clientSentence;
14         String capitalizeSentence;
15         int port = 6789;
16         ServerSocket welcomeSocket = new ServerSocket(port);
17         while(true)
18         {
19             System.out.println("Servidor aguardando o cliente");
20             Socket connectionSocket = welcomeSocket.accept();
21             BufferedReader inFromClient = new BufferedReader(new InputStreamReader(connectionSocket.getInputStream()));
22             DataOutputStream outToClient = new DataOutputStream(connectionSocket.getOutputStream());
23
24             clientSentence = inFromClient.readLine();
25             System.out.println("Texto vindo do cliente: " + clientSentence);
26             capitalizeSentence = clientSentence.toUpperCase() + '\n';
27             outToClient.writeBytes(capitalizeSentence);
28         }
29     }
30 }

```

```

1 package br.principal;
2
3 import java.io.BufferedReader;
4
5
6
7
8
9 public class TCPClient {
10
11     public static void main(String[] args) throws UnknownHostException, IOException{
12
13         String sentence;
14         String modifiedSentence;
15         int port = 6789;
16         Socket clientSocket = new Socket("127.0.0.1", port);
17         BufferedReader inFromUser = new BufferedReader(new InputStreamReader(System.in));
18         DataOutputStream outServer = new DataOutputStream(clientSocket.getOutputStream());
19         BufferedReader inFromServer = new BufferedReader(new InputStreamReader(clientSocket.getInputStream()));
20
21         sentence = inFromUser.readLine();
22         outServer.writeBytes(sentence + '\n');
23         modifiedSentence = inFromServer.readLine();
24
25         System.out.println("Texto enviado do servidor: " + modifiedSentence);
26         clientSocket.close();
27     }
28 }
29

```

ComunicacaoTCP
- escuta: ServerSocket
- conexao : Socket
- recebeMsg : DataInputStream
- enviaMsg : DataOutputStream
+ComunicacaoTCP(ipServer:String, porta:int)
+ComunicacaoTCP(porta : int)
+enviarMensagem(msg: String)
+receberMensagem()

```

1
2 import java.io.DataInputStream;
3 import java.io.DataOutputStream;
4 import java.io.IOException;
5 import java.net.ServerSocket;
6 import java.net.Socket;
7
8 public class ComunicadorTCP {
9     ServerSocket ss;
10    Socket socket;
11    DataInputStream entrada;
12    DataOutputStream saida;
13
14    //Modo Cliente
15    public ComunicadorTCP(String ipServer, int portaServer) throws IOException {
16        socket = new Socket(ipServer, portaServer);
17        entrada = new DataInputStream(socket.getInputStream());
18        saida = new DataOutputStream(socket.getOutputStream());
19    }
20    //Modo Servidor
21    public ComunicadorTCP(int portaServer) throws IOException {
22        ss = new ServerSocket(portaServer);
23        socket = ss.accept();
24        entrada = new DataInputStream(socket.getInputStream());
25        saida = new DataOutputStream(socket.getOutputStream());
26    }
27
28    public void enviarMensagem(String mensagem) throws IOException {
29        saida.writeUTF(mensagem);
30        saida.flush();
31    }
32
33    public String receberMensagem() throws IOException {
34        return entrada.readUTF();
35    }
36 }
37

```

```

1  import java.io.IOException;
2  import java.util.Scanner;
3  public class ClienteMain {
4      public static void main(String[] args) throws IOException {
5          Scanner teclado = new Scanner(System.in);
6          ComunicadorTCP cliente = new ComunicadorTCP("127.0.0.1");
7
8          while(true) {
9              System.out.print("Mensagem: ");
10             String mensagem = teclado.nextLine();
11             cliente.enviarMensagem(mensagem);
12
13             String resposta = cliente.receberMensagem();
14             System.out.println("Resposta: " + resposta);
15         }
16     }
17 }
18
19

```

```

1  import java.io.IOException;
2  import java.util.Scanner;
3  public class ServidorMain {
4      public static void main(String[] args) throws IOException {
5          Scanner teclado = new Scanner(System.in);
6          ComunicadorTCP servidor = new ComunicadorTCP(7777);
7
8          while(true) {
9              String resposta = servidor.receberMensagem();
10             System.out.println("Resposta: " + resposta);
11
12             System.out.print("Mensagem: ");
13             String mensagem = teclado.nextLine();
14             servidor.enviarMensagem(mensagem);
15         }
16     }
17 }
18
19

```