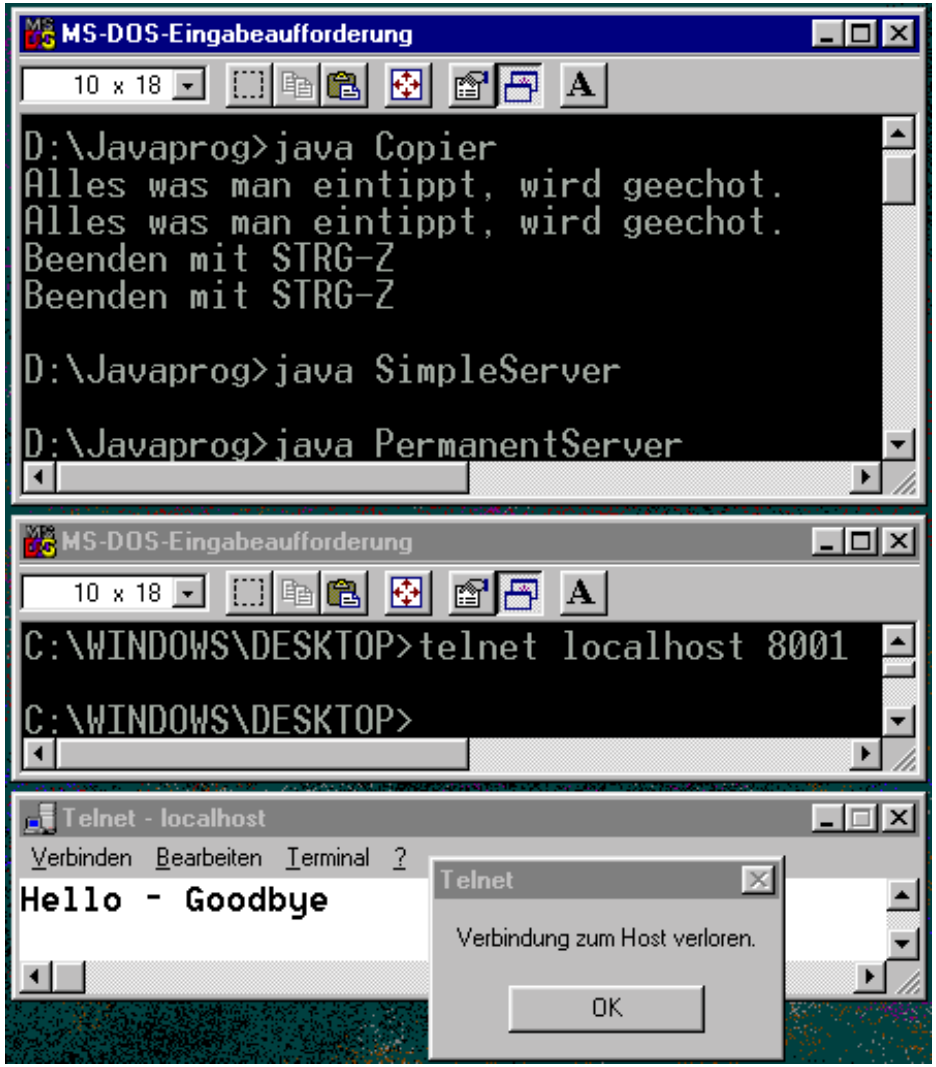
Java-Programme zur Ein-/Ausgabe- und Netzwerkprogrammierung

Copier.java
SimpleServer.java
PermanentServer.java



Klasse Copier: dient zum Kopieren von Zeichen

Copier.java:

```
import java.io.*;

public class Copier {
    public OutputStream out;
    public InputStream in;
    public void start() throws IOException {
        byte buffer[] = new byte[100];
        int count;
        for( count=in.read(buffer);
             count > 0;
             count=in.read(buffer))
        {
             out.write(buffer,0,count);
             out.flush();
        };
        in.close();
        out.close();
    }
    public static void main(String[] args) throws IOException {
        Copier keyboardEcho = new Copier();
        keyboardEcho.in = System.in;
        keyboardEcho.out = System.out;
        keyboardEcho.start();
    }
}
```

Klasse SimpleServer, antwortet einmal mit Hello-Goodbye-Message

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

public class SimpleServer extends ServerSocket {
    public SimpleServer (int port) throws IOException {
        super(port);
    }
    public void oneConnection() throws IOException {
        Socket theSocket = this.accept();
        PrintWriter thePrintWriter
            = new PrintWriter(theSocket.getOutputStream());
        thePrintWriter.println("Hello - Goodbye");
        thePrintWriter.close();
        theSocket.close();
    }
    public static void main(String[] args) {
        try {
            int port = 8001;
            SimpleServer s = new SimpleServer(port);
            s.oneConnection();
        }
        catch (IOException e) {
        System.err.println(e);
        }
    }
}
```

Klasse PermanentServer, gibt wiederholte Antworten

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

public class PermanentServer extends SimpleServer {
    public PermanentServer (int port) throws IOException {
        super(port);
    }
    public void run() throws IOException {
        while (true) {
            oneConnection();
        }
    }
    public static void main(String[] args) {
        try {
            int port = 8001;
            PermanentServer p
                = new PermanentServer(port);
            p.run();
        }
        catch (IOException e) {
        System.err.println(e);
        }
    }
}
```

Nutzung der Klasse Copier zum Kopieren von Dateien und URLs

FileCopier.java:

```
import java.io.*;
public class FileCopier {
    public static void main(String[] args) throws IOException {
        Copier fileCopier = new Copier();
        if (args.length > 0)
            fileCopier.in = new FileInputStream(args[0]);
        else fileCopier.in = System.in;
        if (args.length > 1)
            fileCopier.out = new FileOutputStream(args[1]);
        else fileCopier.out = System.out;
        fileCopier.start();
    }
}
```

URLCopier.java:

```
import java.io.*;
import java.net.*;
public class URLCopier {
    public static void main(String[] args) throws IOException {
        Copier urlCopier = new Copier();
        if (args.length > 0) {
            URL url = new URL(args[0]);
            urlCopier.in = url.openStream();
        }
        else urlCopier.in = System.in;
        if (args.length > 1)
            urlCopier.out = new FileOutputStream(args[1]);
        else urlCopier.out = System.out;
        urlCopier.start();
    }
}
```