

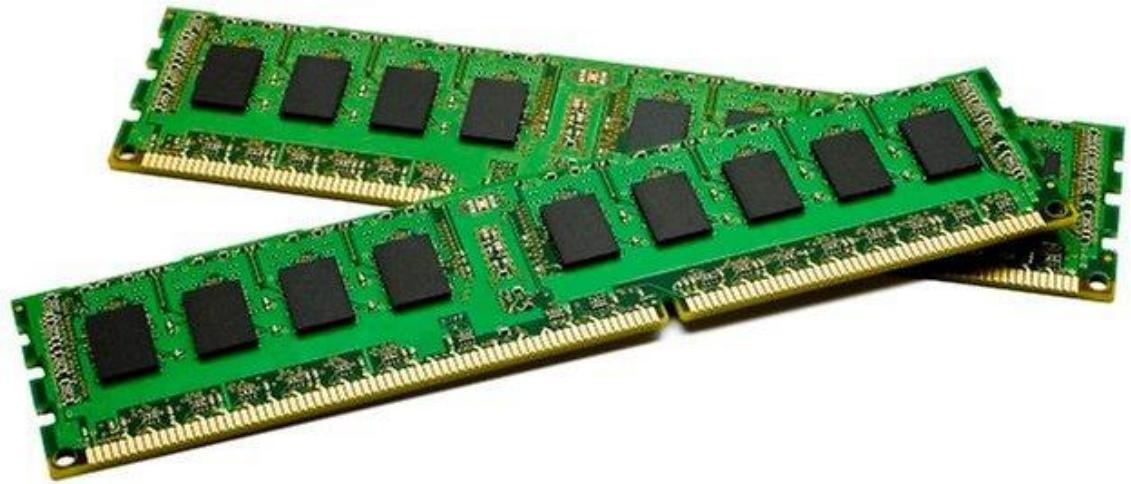
# Output to Files

PrintWriter

programmer joke:

**!false**

It's funny  
because it's true

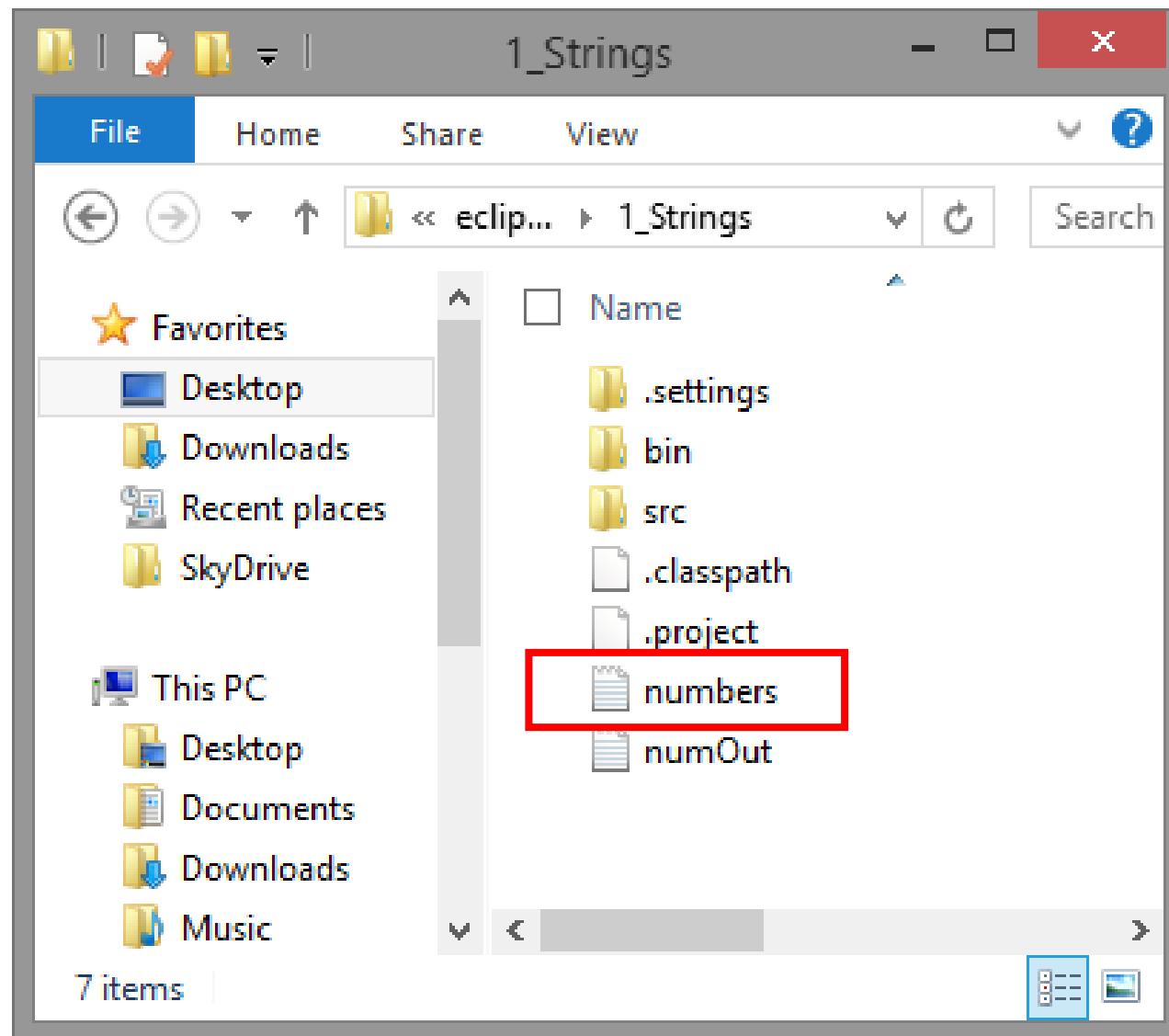


Temporary  
Fast (close to CPU)

Variables  
“Open” things

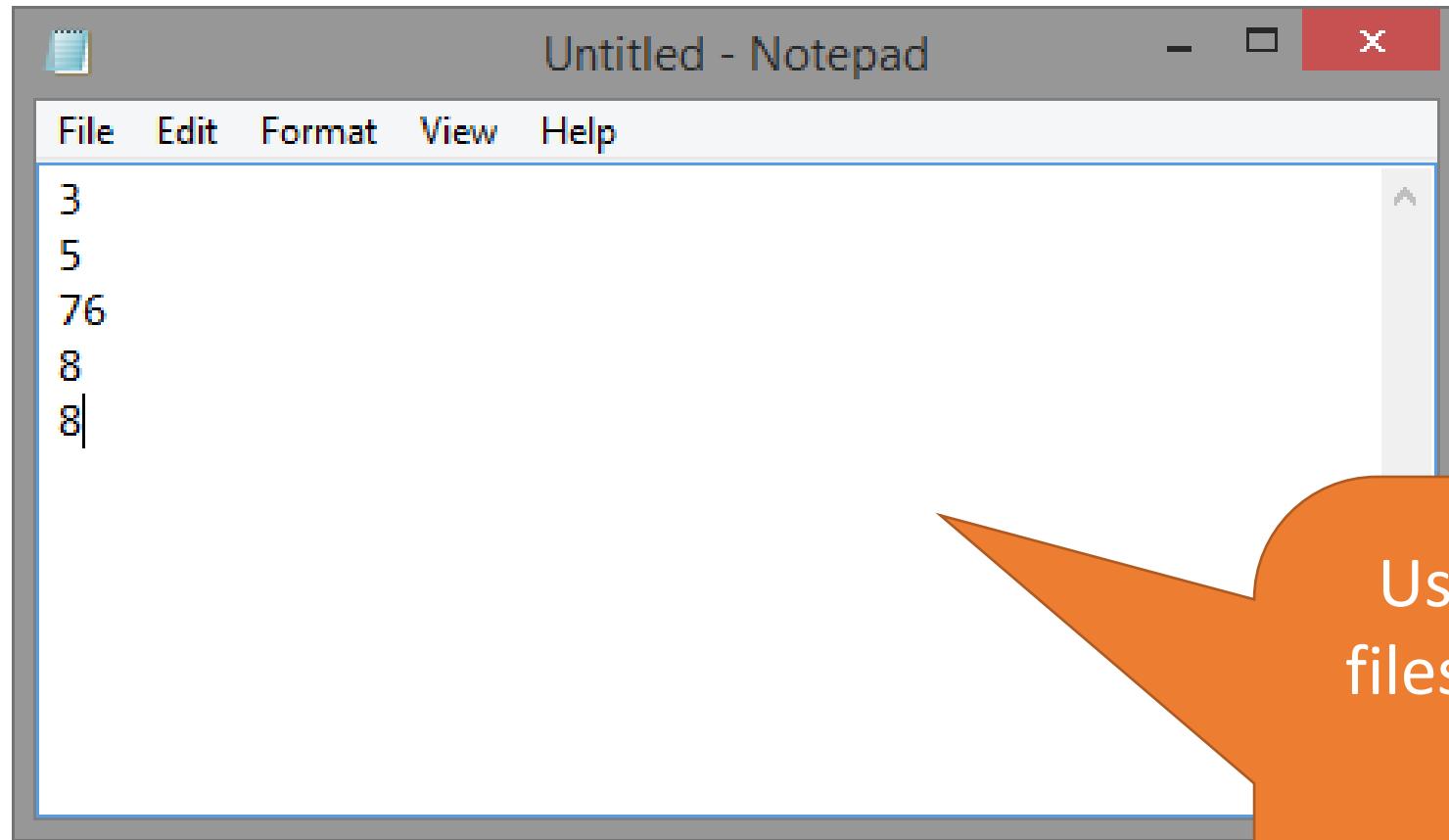
Permanent  
Slow (far from CPU)

Files  
“Saved” things



Where do  
the files  
need to be  
stored?

Inside the  
project folder,  
inside your  
workspace.



Use Notepad to make the files, then store them in the right folder.

Ready to Program does this too if you save it as a .txt instead of .java.

Printing to files  
works exactly like  
System.out  
Same Commands.

print  
println  
\t  
\n  
\”  
\\"



```
try {  
    //File code here  
}  
  
catch (IOException e) {  
    System.out.println ("File error " + e);  
}
```

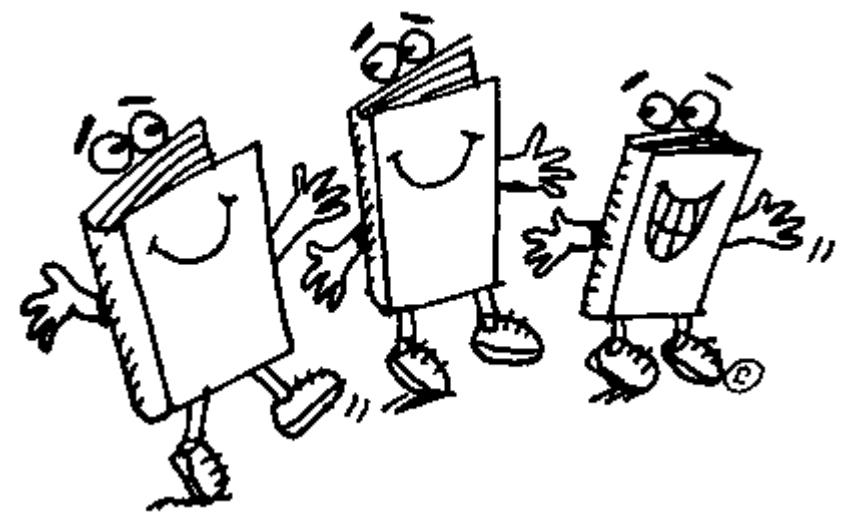
Files REQUIRE a try/catch.

They are external to the program, so as a programmer we can't trust they will actually be where we hope they are.

Files are from the io  
library.

```
import java.io.*;  
PrintWriter out;
```

The file object is a  
“PrintWriter”



```
import java.io.*;
public class printOut {
    public static void main (String args[]) {
        new printOut ();
    }

    public printOut () {
        PrintWriter out;
        try {
            out = new PrintWriter (new FileWriter ("numOut.txt"));
            for (int i = 0 ; i < 10 ; i++) {
                out.println(i);
            }
            out.close ();
        }
        catch (IOException e) {
            System.out.println ("Error opening file " + e);
        }
    }
}
```

## Import the right library

```
import java.io.*;
public class printOut {
    public static void main (String args[]) {
        new printOut ();
    }

    public printOut () {
        PrintWriter out;
        try {
            out = new PrintWriter (new FileWriter ("numOut.txt"));
            for (int i = 0 ; i < 10 ; i++) {
                out.println(i);
            }
            out.close ();
        }
        catch (IOException e) {
            System.out.println ("Error opening file " + e);
        }
    }
}
```

```
import java.io.*;  
public class printOut {  
    public static void main (String args[]) {  
        new printOut ();  
    }  
  
    public printOut () {  
        PrintWriter out;  
        try {  
            out = new PrintWriter (new FileWriter ("numOut.txt"));  
            for (int i = 0 ; i < 10 ; i++) {  
                out.println(i);  
            }  
            out.close ();  
        }  
        catch (IOException e) {  
            System.out.println ("Error opening file " + e);  
        }  
    }  
}
```

Import the right library

Open a Print Writer.  
Like System.out.

```
import java.io.*;  
public class printOut {  
    public static void main (String args[]) {  
        new printOut ();  
    }  
  
    public printOut () {  
        PrintWriter out;  
        try {  
            out = new PrintWriter (new FileWriter ("numOut.txt"));  
            for (int i = 0 ; i < 10 ; i++) {  
                out.println(i);  
            }  
            out.close ();  
        }  
        catch (IOException e) {  
            System.out.println ("Error opening file " + e);  
        }  
    }  
}
```

Import the right library

Open a Print Writer.  
Like System.out.

Send in the file name.

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

```
public class printOut {
```

```
    public static void main (String args[]) {
```

```
        new printOut () ;
```

```
}
```

```
public printOut () {
```

```
    PrintWriter out;
```

```
    try {
```

```
        out = new PrintWriter (new FileWriter ("numOut.txt")) ;
```

```
        for (int i = 0 ; i < 10 ; i++) {
```

```
            out.println(i) ;
```

```
        }
```

```
        out.close () ;
```

```
}
```

```
    catch (IOException e) {
```

```
        System.out.println ("Error opening file " + e) ;
```

```
}
```

```
}
```

Import the right library

Open a Print Writer.  
Like System.out.

Send in the file name.

Print out what you want.

```
import java.io.*;  
public class printOut {  
    public static void main (String args[]) {  
        new printOut ();  
    }  
  
    public printOut () {  
        PrintWriter out;  
        try {  
            out = new PrintWriter (new FileWriter ("numOut.txt"));  
            for (int i = 0 ; i < 10 ; i++) {  
                out.println(i);  
            }  
            out.close ();  
        }  
        catch (IOException e) {  
            System.out.println ("Error opening file " + e);  
        }  
    }  
}
```

Import the right library

Open a Print Writer.  
Like System.out.

Send in the file name.

Print out what you want.

Close the file.