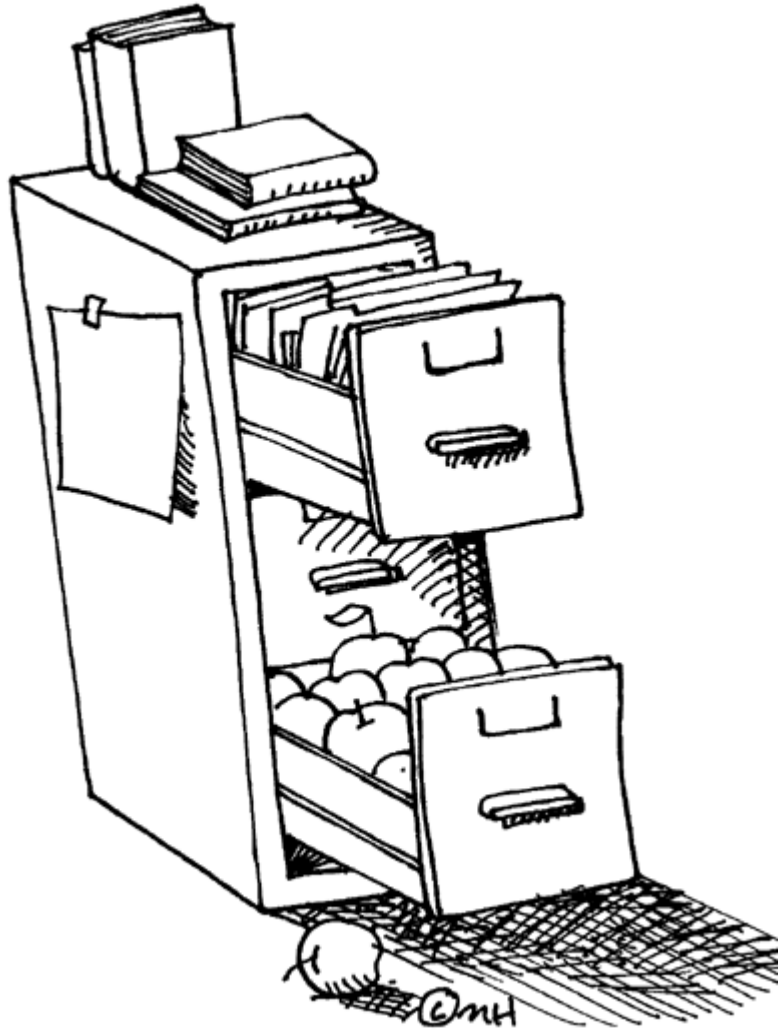


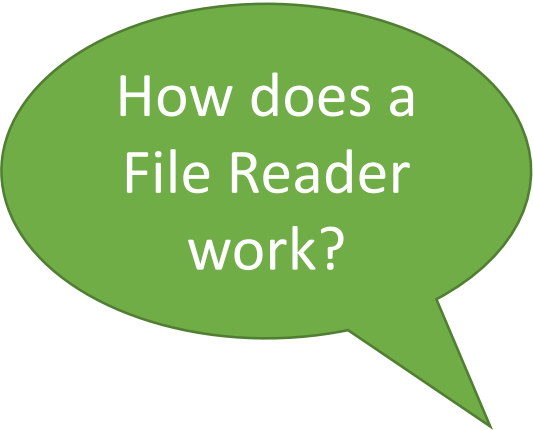
# Input from Files

FileInputStream



- Input from files is always int.
- The object we use is a `FileInputStream`
- They are really similar to a `FileOutputStream`, but they do the reverse.
- They also need a try/catch block and to be closed.

This is a file.  
It has text in it.  
The text can be read.  
Line by line.  
The program can ...  
... use the data.  
Like open a saved file.  
Maybe a high scores list.  
Or some user settings.



How does a  
File Reader  
work?

```
in.read();
```

```
12  
23  
34  
45  
56  
67  
78  
89  
91  
10
```



```
in.read();
```

```
12  
23  
34  
45  
56  
67  
78  
89  
91  
10
```



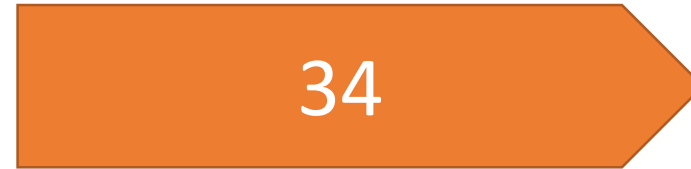
```
in.read();
```

12  
23  
34  
45  
56  
67  
78  
89  
91  
10



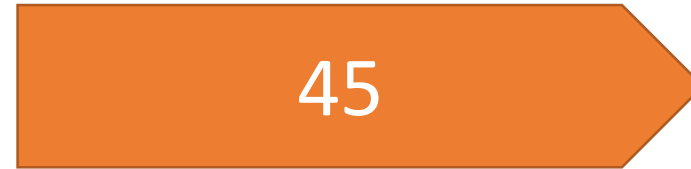
```
in.read();
```

```
12  
23  
34  
45  
56  
67  
78  
89  
91  
10
```



```
in.read();
```

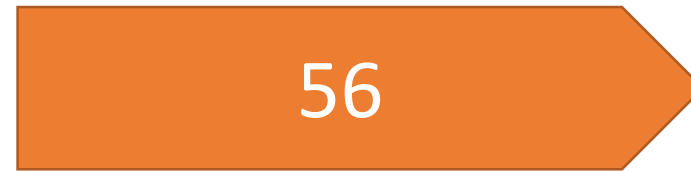
12  
~~23~~  
34  
45  
56  
67  
78  
89  
91  
10





```
in.read();
```

12  
~~23~~  
34  
45  
56  
67  
78  
89  
91  
10



```
public void open() {
    try {
        FileInputStream in = openFileInput("data.txt");
        String display="";
        for(int i=0; i<a.length; i++) {
            int data = in.read();
            display+=data+" ";
        }

        in.close();
        TextView words = (TextView) findViewById(R.id.words);
        words.setText(display);
    } catch (FileNotFoundException e) {
        e.printStackTrace();
    } catch (IOException e) {
        e.printStackTrace();
    }
}
```

Open a FileInputStream.

```
public void open() {
    try {
        FileInputStream in = openFileInput("data.txt");
        String display="";
        for(int i=0; i<a.length; i++) {
            int data = in.read();
            display+=data+" ";
        }

        in.close();
        TextView words = (TextView) findViewById(R.id.words);
        words.setText(display);
    } catch (FileNotFoundException e) {
        e.printStackTrace();
    } catch (IOException e) {
        e.printStackTrace();
    }
}
```

```
public void open() {
```

```
    try {
```

```
        FileInputStream in = openFileInput("data.txt");
```

```
        String display="";
```

```
        for(int i=0; i<a.length; i++) {
```

```
            int data = in.read();
```

```
            display+=data+" ";
```

```
        }
```

```
        in.close();
```

```
        TextView words = (TextView) findViewById(R.id.words);
```

```
        words.setText(display);
```

```
    } catch (FileNotFoundException e) {
```

```
        e.printStackTrace();
```

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

```
        e.printStackTrace();
```

```
    }
```

```
}
```

Open a FileInputStream.

Send in the file name.

```
public void open() {
```

```
    try {
```

```
        FileInputStream in = openFileInput("data.txt");
```

```
        String display="";
```

```
        for(int i=0; i<a.length; i++) {
```

```
            int data = in.read();
```

```
            display+=data+" ";
```

```
        }
```

```
        in.close();
```

```
        TextView words = (TextView) findViewById(R.id.words);
```

```
        words.setText(display);
```

```
    } catch (FileNotFoundException e) {
```

```
        e.printStackTrace();
```

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

```
        e.printStackTrace();
```

```
    }
```

```
}
```

Open a FileInputStream.

Send in the file name.

Read in a single line.

```
public void open() {
```

```
    try {
```

```
        FileInputStream in = openFileInput("data.txt");
```

```
        String display="";
```

```
        for(int i=0; i<a.length; i++) {
```

```
            int data = in.read();
```

```
            display+=data+" ";
```

```
        }
```

```
        in.close();
```

```
        TextView words = (TextView) findViewById(R.id.words);
```

```
        words.setText(display);
```

```
    } catch (FileNotFoundException e) {
```

```
        e.printStackTrace();
```

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

```
        e.printStackTrace();
```

```
    }
```

```
}
```

Open a FileInputStream.

Send in the file name.

Read in a single line.

Close the file.