

File Reading in Java

File reading in Java works similarly to reading information from the keyboard, in that it uses the Scanner class. However, typically to how we did it in Python/COMP 141, we often will read an entire file line by line and process each line separately.

Step 1: Open the file and create a Scanner from the file.

```
InputStream is = NameOfThisClass.class.getResourceAsStream("filename.txt");
if (is == null) {
    System.err.println("Could not open file.");
    System.exit(1);
}
Scanner scan = new Scanner(is); // Create a new scanner from the file.
```

- In the code above, change ***NameOfThisClass*** to whatever the current name of the class is; in other words, the name of the Java class this piece of code lives in.
- Change filename.txt to whatever file you want to read from.

Step 2: Read from the file.

Use the scanner to read information from the file. This can be done using any of the scanner's methods (like nextInt(), etc), but we often do this by using nextLine() which reads an entire line from the file at once.

```
while (scan.hasNextLine()) { // Check that the file has unread lines.
    String line = scan.nextLine(); // Read the next line of the file.
    System.out.println(line); // Useful to see what was just read.
    // Do whatever you want with the line variable here.
}
```