1 Algorithmus

Definition: **Endliches**, **deterministisches** und **allgemeines** Verfahren unter Verwendung **ausführbarer**, **elementarer** Schritte.
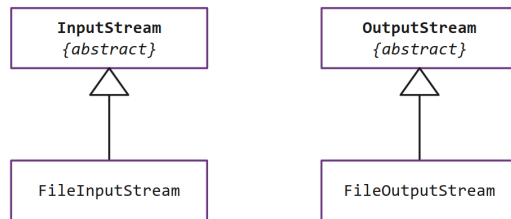
2 Input und Output

Abbildung 1: Klassenhierarchie von Input und Output

2.1 Input

2.1.1 File-Reader

```java
try (var reader = new
FileReader("quotes.txt")) {
  int value = reader.read();
  while (value ≥ 0) {
    char c = (char) value;
    // use character
    value = reader.read();
  }
}

new FileReader(f);
// ist äquivalent zu
new InputStreamReader(new
FileInputStream(f));
```

2.1.2 Zeilenweises Lesen

```java
try (var reader = new BufferedReader(new
FileReader("quotes.txt")) {
  String line = reader.readLine();
  while (line != null) {
    System.out.println(line);
    line = reader.readLine();
  }
}
```

> **Info**: `FileReader` liest einzelne Zeichen, `BufferedReader` liest ganze Zeilen.

2.2 Output

2.2.1 File-Writer

```java
try (var writer = new
FileWriter("test.txt", true)) {
  writer.write("Hello!");
  writer.write("\n");
}
```