

# Iterables Summary

Understanding an Iterable in Java

# Iterables in edu.duke Library

- You have used two Iterables in edu.duke library: FileResource, URLResource
  - Understand by example use
  - Read documentation
- Java Libraries
  - java.lang
  - edu.duke
  - more later

The screenshot shows the Java documentation for the `FileResource` class. On the left, under 'All Classes', a list of classes includes `DirectoryResource`, `FileResource` (highlighted), `ImageResource`, `Pixel`, `Range`, `StorageResource`, and `URLResource`. The main panel shows the package `edu.duke` and the class `FileResource`. It indicates that `FileResource` extends `java.lang.Object`. The class declaration is shown as `public class FileResource extends java.lang.Object`. Below this, there is a description: 'The FileResource class that opens a file and allows...' and 'This class is used in the Duke/Coursera Java Program...'. The author is listed as 'Duke Software Team'.

# edu.duke.FileResource

- Construct an object using `new`
  - From a `File` or a `String` that's name of a file
- Access contents of file via `FileResource`
  - one line-at-a-time: `lines()`
  - one word-at-a-time: `words()`
  - entire file as a `String`: `asString()`

```
public void sayHello(){  
    FileResource hello = new FileResource("hello_unicode.txt");  
    for(String line : hello.lines() ){  
        System.out.println(line);  
    }  
}
```

# edu.duke.URLResource

- Construct an object using `new`
  - From a String that's a valid URL
- Access contents of URL via URLResource
  - one line-at-a-time: `lines()`
  - one word-at-a-time: `words()`
  - entire file as a String: `asString()`

```
public void sayHello(){  
    URLResource hello = new URLResource("http://nytimes.com");  
    for(String line : hello.lines() ){  
        System.out.println(line);  
    }  
}
```