German University in Cairo
Media Engineering and Technology
Prof. Dr. Slim Abdennadher

Computer Programming Lab,
Reading from CSV file

A comma-separated values (CSV) file is just a normal plain-text file, where data is separated by a separator (e.g comma ",").

In our project, we use commas to separate the data.

For example :

"Spell","Raigeki","Destroy all monsters your opponent controls."

Means that it is a spell card called Raigeki and that the card Destroy all monsters your opponent controls.

In order to deal with CSV files you need to know:

- How to read a file

- How to parse a String

1 Reading a file

```
import java.io.BufferedReader;
import java.io.FileReader;
import java.io.IOException;


public class ReadingCSVFile {
    public static void readFile(String path) throws IOException{
        String currentLine = "";
        FileReader fileReader= new FileReader(path);
        BufferedReader br = new BufferedReader(fileReader);
        while ((currentLine = br.readLine()) != null) {
            System.out.println(currentLine);
            // Parsing the currentLine String
        }
    }
    public static void main(String[] args) throws IOException{
        readFile("Database-Spells.csv");
    }
}
```

Note: Any method that calls the method `void readFile(String path)` should have `throws IOException` after the method signature. An example of that can be seen in the main method in the code. This will be discussed later in the course :)

2 Parsing the String

We need to separate the string at the occurrences of commas. For this, we use the pre-defined method
`String[] java.lang.String.split(String separator)`

The method splits this string around matches of `separator` and returns a `String[]` with the separated strings.

For example:

```
String s= "x,y,z";
String [] result= s.split(",");
```

In this piece of code, the array result will be set to: `{"x","y","z"}`

3 Where to place the CSV files for the project?

In the project we would like to read the files as follows:
`readFile("Database-Spells.csv");`.

Therefore, the files need to be placed inside the project folder (in the same location as the src folder), as shown in the figure.

ReadingCSVfilePic.PNG