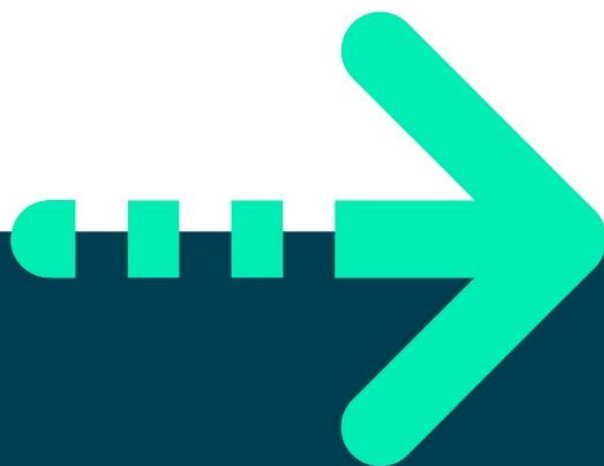




# **EXERCISE 12, WORKING WITH FILES**

## **FUNDAMENTAL**





## Exercise 12, Java - Working with Files

### Objective

The objective of this practical session is for you to become familiar with a number of classes found in the `java.io` namespace and practice reading and writing to files.

### Part 1 – File I/O Practice

1. Back in the **labs** project which you created in *Lab1*, add a new package called **lab12**.
2. Add a new class called **Program** to this package with a *main()* method.
3. Add three pre-supplied text files to your **src** folder.  
**course.txt, trainer.txt and courseTrainer.txt**

**Tip:** to add these right mouse click on the src folder and then select **import > general > file system**.

4. Create a method in the Program class with following signature

```
private static String[] readCSV(String inFile) throws IOException {  
}
```

We've not covered Exception handling so just ignore the **throws IOException** part for now!

Please also change the *main()* as:

```
public static void main(String[] args) throws Exception {
```

5. Write code in the `readCSV` method to read one line the `inFile` parameter and split the resulting `String` using `,` as delimiter. Return the `String[]` returned from the `split` method.

**Tip:** use the `String`'s `split(",")` method. This method returns an `String[]`.

6. Back in *main()*, call the `readCSV()` method and pass it the `"src/course.txt"` as file name and capture the result back in a variable called **courses**.

Do the same for `"src/trainer.txt"` and capture the result in a variable called **trainers**.

7. Create a file called **trainersAndCourses.txt** and append the `courses` and `trainers` arrays to this file.
8. Run your code and make sure it works.



## Part 2 – Relate courses and trainers (optional and only if you've time)

1. Add a pre-supplied text file called **trainerCourse.txt** to the **src** folder.

This file contains rows of two ";" separated integers.

The two integers point to trainer numbers (the first value) and course titles (second number).

Trainer and course numbers being the order in which trainers and courses are stored in the files.

For example, **1,2** indicates

*"Mike Baradaran"* (**1<sup>st</sup>** row of *trainer.txt*), teaching

*"Systems Development Basics"* (**2<sup>nd</sup>** row of *course.txt*).

Convert all the numbers to trainer names and course titles in order to produce a report.

**\*\* End \*\***

