
Lambda Java

MSC COMPUTER SCIENCE

PROGRAMME TUTORIAL

MARCH 16, 2022

Basic Introduction

[HTTPS://WWW.YOUTUBE.COM/WATCH?V=TJ5LSFJVj4](https://www.youtube.com/watch?v=TJ5LSFJVj4)

Code from presentation

DBServer.java

```
1 public void printTable(){
2     // Here we assume that we have been able to read the data
3     // from file into a 2D ArrayList
4     ArrayList<ArrayList<String>> tableData = readFile("data", "people");
5     System.out.println("\nRaw table data as read in:");
6     System.out.println(tableData);
7
8     // Using nested for loops, we can print the data in the 2D ArrayList
9     System.out.println("\n\nUsing nested for loops:");
10
11     for(ArrayList<String> row : tableData){
12         for(String cell : row){
13             System.out.print(cell + "\t");
14         }
15         System.out.println();
16     }
17
18     // We can do exactly the same things using Lambdas
19     System.out.println("\n\nUsing lambda:");
20
21     tableData.forEach((row) -> {
22         row.forEach((cell) -> System.out.print(cell + "\t"));
23         System.out.println();
24     });
25
26     Table table = new Table();
27
28     // In some cases, lambda methods can be replaced by method references
29     // We can replace "tableData.forEach((row) -> table.addRow(row));" with...
30     tableData.forEach(table::addRow);
31
32     // Once we have implemented toString(), it is called automatically
33     // when we pass the object to be printed
34     System.out.println("\n\nTable string:");
35     System.out.println(table);
36 }
```

Tasks:

1. Write to file using lambdas
2. Convert your table data into a string by implementing a toString() method
3. Think about somewhere else you might use a Lambda in your project, maybe the Tokenizer? Speak to one of the teaching staff about your ideas.