

Unit 5e: Zipping

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1 Introduction

The *zip* function creates a new collection by merging a collection into the current collection.

The new collection consists of **Tuple2** elements – more on tuples later.

It can be used with both Mutable and Immutable collections.

Let's look at an example:

The screenshot shows the ScalaFiddle interface. On the left, there's an 'Info' sidebar with fields for 'Name' (Untitled) and 'Description'. The main area contains Scala code:

```
val students = List("Xavi", "Messi", "Iniesta")
val exam = List(70, 100, 45)
val coursework = List(50, 100, 35)

val studentResults = exam zip coursework
println(studentResults)
```

Below the code, the output is displayed: `List((70,50), (100,100), (45,35))`. The interface also includes buttons for 'Run', 'Update', 'Fork', and 'Embed'.

Here the marks for coursework and exam are combined into a tuple of 2 values – a **Tuple2**.

What if we then add the student names:

```
val studentResults = students zip (exam zip coursework)
println(studentResults)
```

The output of this code is:

```
List((Xavi,(70,50)), (Messi,(100,100)), (Iniesta,(45,35)))
```