



Scala Cheatsheet – Essential Commands

Setup & Running

- **scala:** Start REPL (interactive shell)
- **scalac MyFile.scala:** Compile Scala file
- **scala MyFile:** Run compiled class
- **scala MyFile.scala:** Run script directly

File Viewing & Editing

- **val x = 10:** Immutable value
- **var y = 20:** Mutable variable
- **val name: String = "Scala":** Explicit type
- **Common types:** Int, Double, Boolean, String, Unit, Any

Collections

- **Lists:** `val nums = List(1, 2, 3)`
- **Sets:** `val items = Set("a", "b")`
- **Maps:** `val m = Map("a" -> 1, "b" -> 2)`
- **Arrays:** `val arr = Array(1, 2, 3)`

Operators

- **Arithmetic:** `+`, `-`, `*`, `/`, `%`
- **Comparison:** `==`, `!=`, `>`, `<`, `>=`, `<=`
- **Logical:** `&&`, `||`, `!`

Control Flow

- **If/Else:** `if (x > 0) println("Positive") else println("Negative")` **Match**
- **(like switch):** `x match { case 1 => "One"; case _ => "Other" }` **For loop:** `for (i <- 1 to 5) println(i)`

Functions

- **Basic:** `def add(a: Int, b: Int): Int = a + b`
- **Anonymous:** `val add = (a: Int, b: Int) => a + b`

Classes & Objects

- **Class:** `class Person(val name: String, val age: Int)`

- **Object (Singleton):**

```
object Hello { def main(args: Array[String]): Unit =  
  println("Hello, Scala") }
```

Higher-Order Functions

- **Map:** `List(1, 2, 3).map(_ * 2)`
- **Filter:** `List(1, 2, 3).filter(_ % 2 == 1)`
- **Reduce:** `List(1, 2, 3).reduce(_ + _)`

SBT (Simple Build Tool)

- **sbt:** Open sbt shell
- **sbt compile:** Compile project
- **sbt run:** Run main class
- **sbt test:** Run tests
- **build.sbt:**
`name := "MyApp"`
`scalaVersion := "2.13.12"`

