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"
```