

Scala

# Scala

- Modern multi-paradigm programming language.
- Short for Scalable Language.
- Created by Martin Odersky
- Released the first version in 2003.
- Scala runs on a Java virtual machine and is compatible with existing Java programs.
- Scala source code is compiled into Java bytecode, so it can run on top of the JVM and can call existing Java class libraries.

# The first Scala program: Hello World

- HelloWorld.scala
  - `object HelloWorld {`
  - `def main(args: Array[String]): Unit = {`
  - `println("Hello, world!")`
  - `}`
  - `}`
- `// Compile source code into bytecode`
  - `$ scalac HelloWorld.scala`
- `// Put the bytecode into the virtual machine to explain Run`
  - `$ scala HelloWorld`
- The output is:
  - Hello, world!

# Access Console

- Open
  - <http://pythonvm.westus.cloudapp.azure.com:4200>

# Scala - Installation Setup

- Must have Java 1.8 or greater installed on your computer.
- Step 1: Verify Java Installation
  - `java -version`
- Step 2: Install Scala
  - Windows
    - <https://downloads.lightbend.com/scala/2.13.1/scala-2.13.1.msi>
  - Ubuntu:
    - `curl -s "https://get.sdkman.io" | bash`
    - `source "~/.sdkman/bin/sdkman-init.sh"`
    - `sdk install scala`
    - `scala -version`

# Scala documentation and help

- <https://docs.scala-lang.org/>
- Scala Book
  - An online book introducing the main language features.
  - <https://docs.scala-lang.org/overviews/scala-book/introduction.html>

# Thanks