SWIFT - 1

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Agenda

- Basics Concepts
- Intro to Swift
- Variables and Printing
- Loops
- Conditions

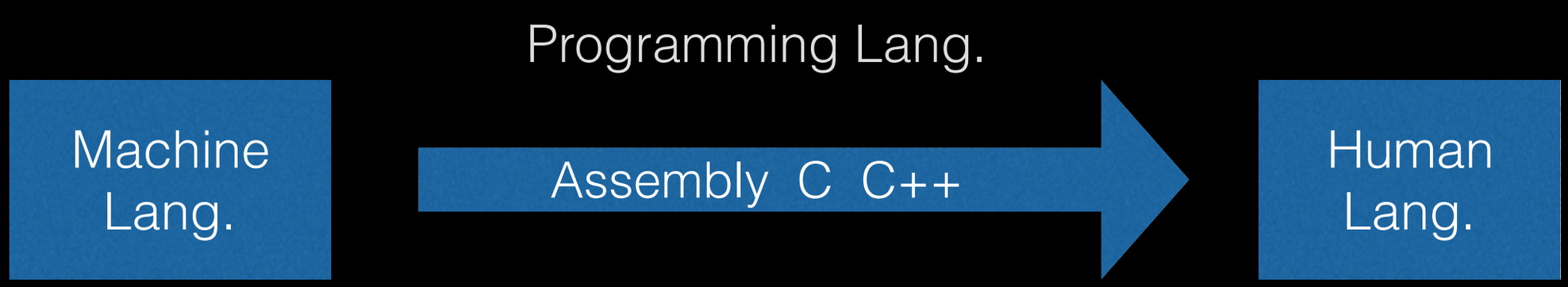
Programming Languages

OOP VS FOP

- In Functional programming:
  - Data are named values
  - Functions are value to value mapping
- In OOP:
  - Data are values stores determining state of an object
  - Methods operates on data and results an output depending on the state of the object

Why Programming Languages?

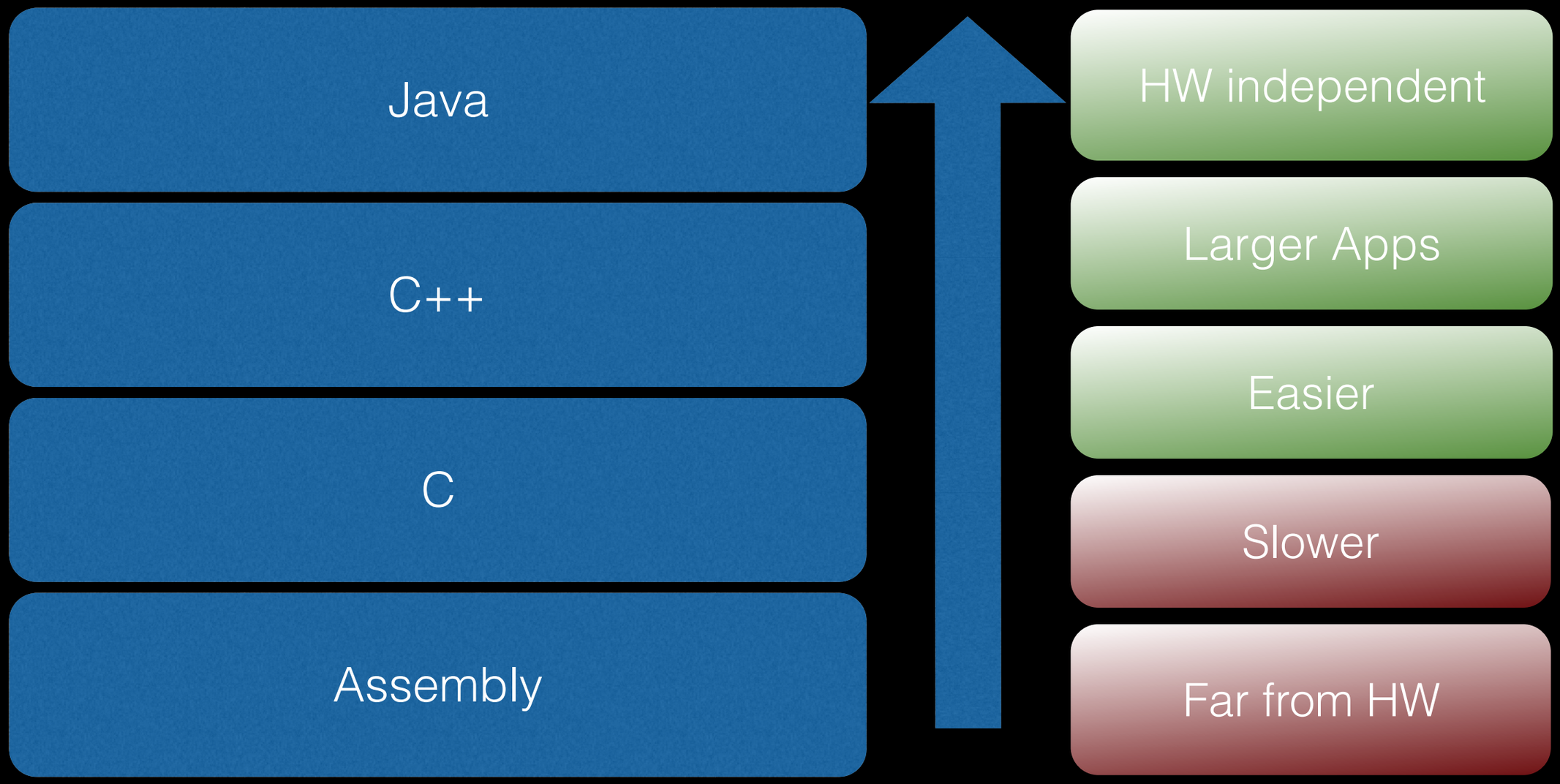
- Hardware is useless without SW
- Programming language is the alternative of writing instruction in machine code
- Programming languages are filling the gab between machine and human languages



Programming Lang. Levels

- We have low level and high level programming languages
- Low level like assembly
- High level like C
- High and low with respect to hardware

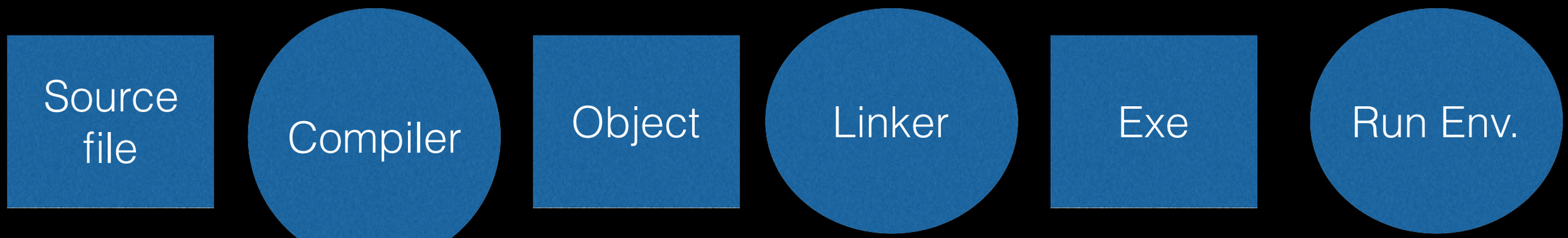
Languages Levels



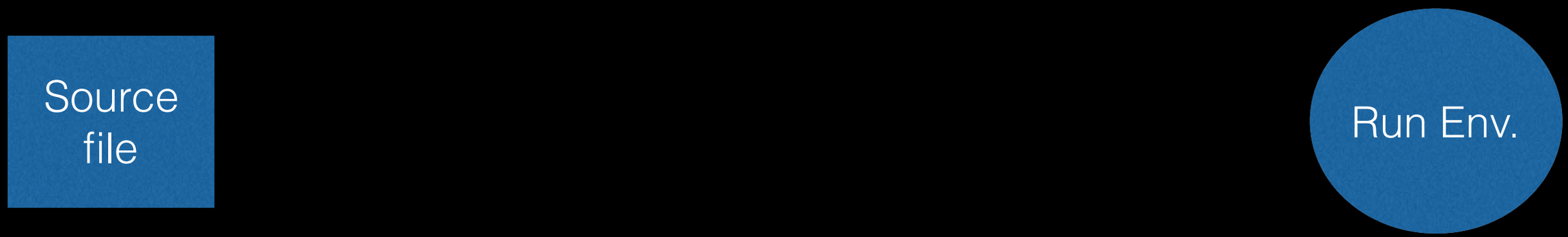
Software life cycle

Compiler based VS Interpreter

- Compiler based languages



- Interpreter based languages



Which is better?

- WRONG QUESTION !

Compiler Based Lang.

- Exe distribution
- Better in large applications
- Longer development time
- Code reusing by dynamic and static linking

Interpreter Based Lang.

- Code distribution
- Better in small repeatable applications
- Shorter development time
- Program is executed line by line

Difference Between Languages

- Programming languages are tools
- You can almost do anything with any of them

Difference Between Languages

Intro to Swift

About Swift

Modern PL

Created by Apple

Announced at WWDC14

It is fun

About Swift

; is optional

Datatype is optional

:) can be a variable name

It is fun

Intro to Swift

Variables & Printing

Variable

```
int x = 5;
```

```
var x = 5
```

Keyword var

No datatype

No ;

Constant

```
const int x = 5;
```

```
let x = 5
```

Keyword let

No datatype

No ;

Examples

```
var x = 5
```

```
let x = 5
```

```
var x = "5"
```

```
let x = "5"
```

```
var x = 5.5
```

```
let x = 5.5
```

Printing

```
println("Hello")
```

Hello

```
println("x")
```

x

```
println("\(x)")
```

value of x

Demo

Intro to Swift

Define Data Type

Variable

```
int x = 5;
```

```
var x:Int = 5
```

Keyword var

No ;

Constant

```
const String x = "5";
```

```
let x:String = "5"
```

Keyword let

No ;

Intro to Swift

Loops

For

```
for (int i=0;  i<10;  i++)
```

```
for i in 1..<5
```

No ()

Range

Intro to Swift

Conditions

IF

```
if (i==5)
```

```
if i == 5
```

No ()

IF - ELSE

```
if (i==5) {}
else{}
```

```
if i == 5{}
else {}
```

Demo