

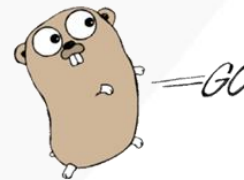
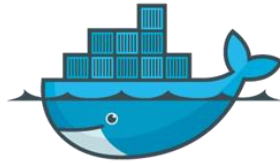
## Basic Programming Elements

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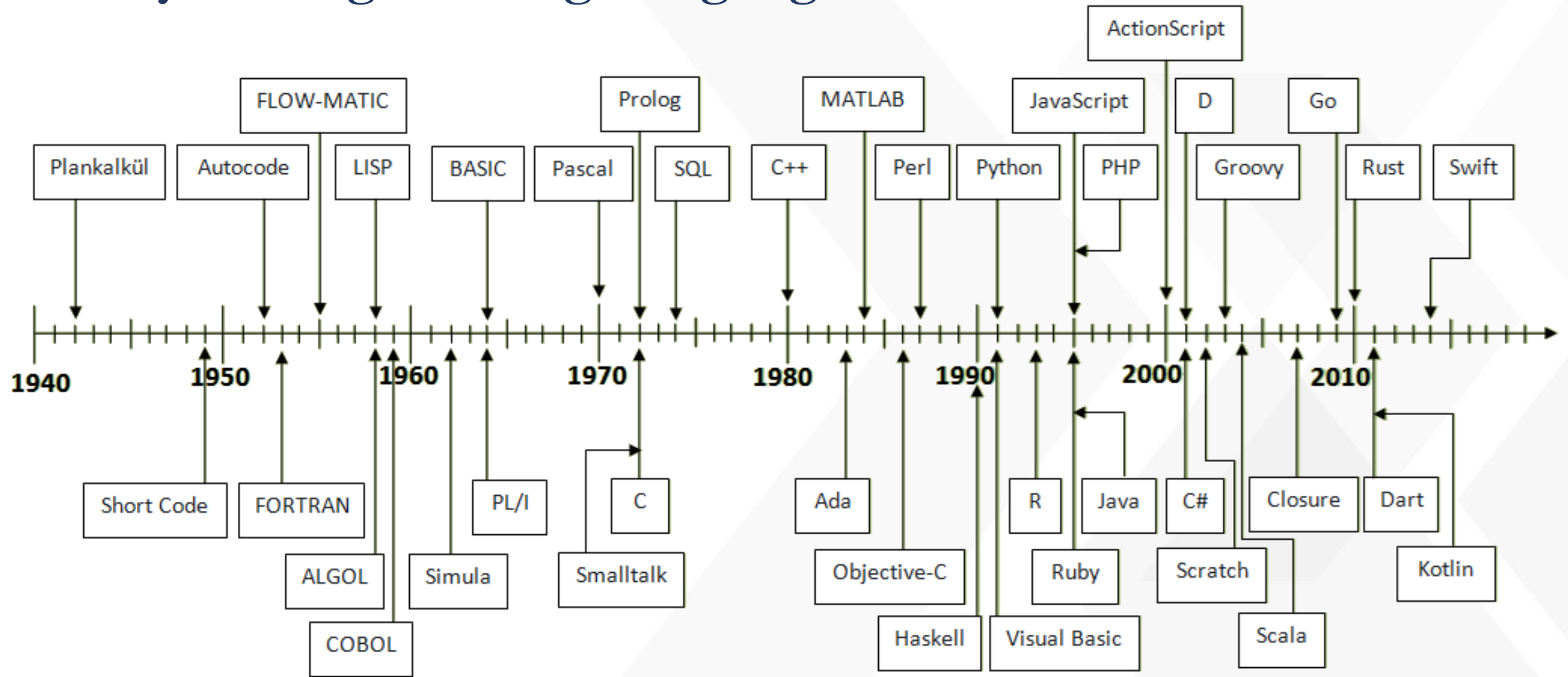
## Lecture 2 – Topics

1. Different programming languages
2. High level vs Low level languages
3. Language translators – Compiler and Interpreter
4. Why syntax rules?

# Computer/Programming Languages



# History of Programming Languages



# Classification – basis type

## Low level

Codes are written in binary which machine can understand and process directly; however codes written in low level languages are not human readable

## Machine Language

Considered as oldest computer language where the input is directly given as binary which is processed by the machine

## Assembly Language

Famous for writing an operating system codes for desktop applications. Can't be reused and difficult to understand

## High Level

Most of the modern languages are high level where codes are written in human readable form; but can't be understood directly by machine

## Procedural/Functional

Follows a set of commands in a specific order. Make use of functions, conditional statements, and variables to create programs.

e.g. C, BASIC, FORTAN, PASCAL

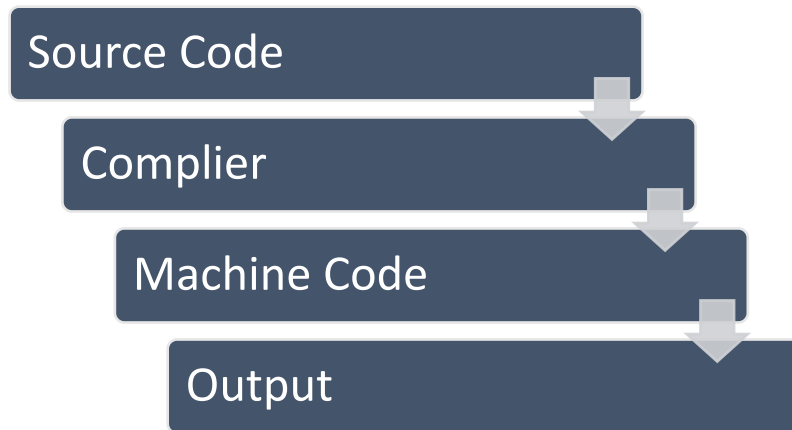
## Object Oriented Programming

Based on the concept of "objects"; It assumes every task in programming is performed for certain entity/object; which can contain data and code: data in the form of fields, and code, in the form of procedures.

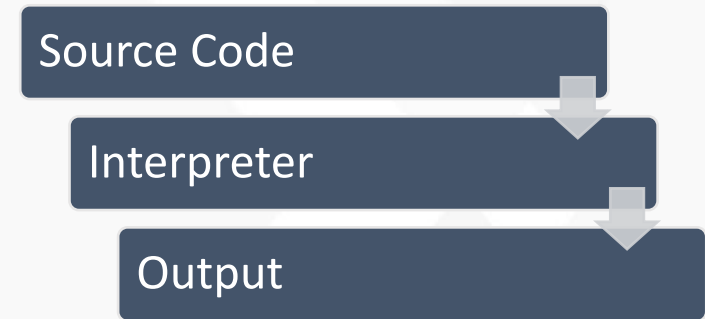
e.g. JAVA, PHP, Python, C++, Dot Net

# Compiler and Interpreter

Language translator are the computer programs which translates the human-readable code to a language a computer processor understands (binary 1 and 0)



**Compiler** transforms **complete code** written in a high-level programming language into the machine code



**Interpreter** works **line by line** and coverts each high-level program statement into the machine code sequentially

# Classification – basis applications

Web Development	Web Designing	Desktop App Development	Smart Phone App Development	Analytics
<ul style="list-style-type: none"><li>• PHP</li><li>• ASP .NET</li><li>• Python</li><li>• Java</li><li>• ROL</li><li>• Node JS</li></ul>	<ul style="list-style-type: none"><li>• HTML</li><li>• CSS</li><li>• Java Script</li><li>• Angular JS/ React JS/ Veu JS</li></ul>	<ul style="list-style-type: none"><li>• ADO .NET</li><li>• C++</li><li>• Java</li><li>• SWIFT</li></ul>	<ul style="list-style-type: none"><li>• SWIFT</li><li>• KOTLIN</li><li>• React Native</li><li>• Objective C</li><li>• Android Java</li></ul>	<ul style="list-style-type: none"><li>• Python</li><li>• R</li><li>• SAS</li><li>• SCALA</li><li>• JULIA</li><li>• SQL</li></ul>

# Contact Us

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