

Programming Language



What is Programming?

- Programming is the process of writing an algorithm into a sequence of computer instructions. Or you can simply say it is the process of writing programs.
- The process of transforming the solution of a specific problem into computer language.
- Programming requires skill, logical thinking and lots of experience.
- programming is giving a set of instructions to a computer to execute

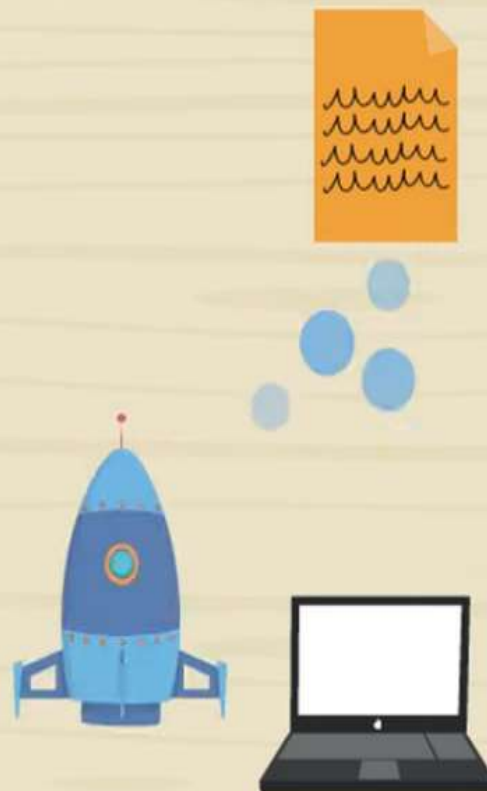


- And programming languages are the tools we use to write instructions for computers to follow. Computers “think” in binary — strings of 1s and 0s. Programming languages allow us to translate the 1s and 0s into something that humans can understand and write. A programming language is made up of a series of symbols that serves as a bridge that allow humans to translate our thoughts into instructions computers can understand.

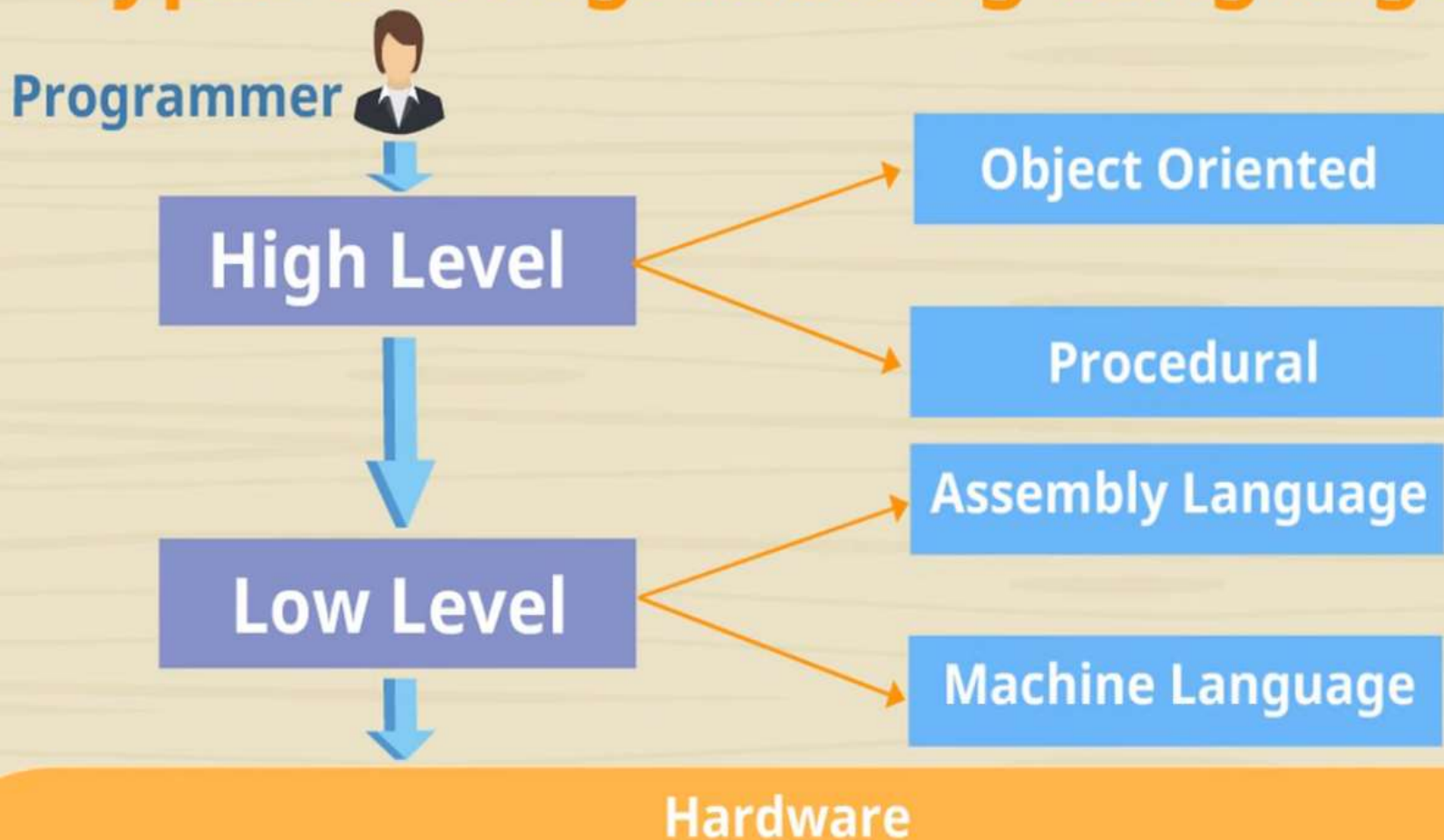


Programming Languages

1. Artificial language
2. Designed to communicate instructions to a machine
3. Used to create programs that control the behavior of a machine.




Types of Programming Languages



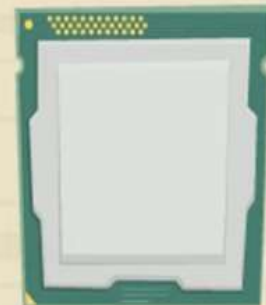
Machine Language

1. Directly run on CPU
2. Series of bits like, 0s and 1s
3. Tedious and error prone to write code manually.
4. Not portable



```
10110100  
10110101  
01010100  
01011011
```

10101001



Assembly Language

1. Less error-prone
2. Coding easier than machine Language
3. Replaces 1 and 0s with English instructions
4. Mnemonic codes for corresponding machine language

```
Mov A1, AA  
JMP L20  
CMP R0, R1  
ADD R1, AH, BH
```



Apple



Procedural

Program is written as sequence of instructions

1. Top down approach
2. It doesn't have proper way for hiding data
3. Data is not secure
4. Code is interdependent
5. Reuse difficult

Object Oriented

Program is an interaction of functions between objects

1. Bottom up approach
2. Helps in wrapping data and functions in a class
3. Helps Building secure programs
4. Code is modular
5. Can be extended for reuse



Procedural

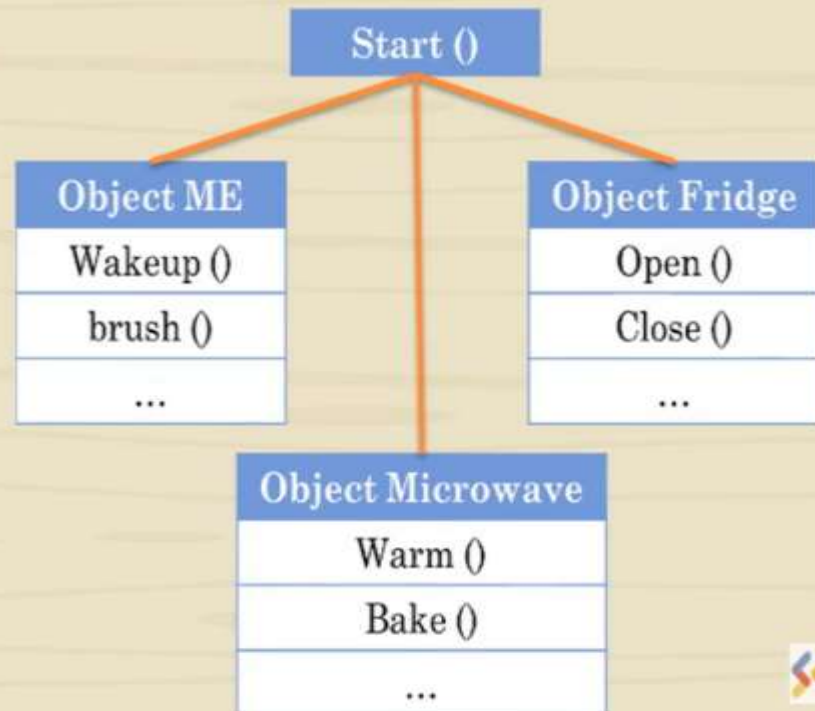
Program is written as
sequence of instructions

e.g.: Recipes,
Morning Steps:

Start ()
I wake up
I brush my teeth
I open fridge
I take milk
I warm it in microwave

Object Oriented

Program is an interaction of
functions between objects





Apple

Swift

Objective-C

Google

JavaScript

Java

Python

Microsoft

JavaScript

SQL

C++

C#

Mozilla

JavaScript

HTML

C++

C#

Oracle

Java

SQL

C++

C#

Facebook

JavaScript

PHP

C++





Languages Used

Youtube - JavaScript, C, C++, Python, Java, Go

Google - JavaScript, C, C++, Go, Java, Python

Yahoo - JavaScript, PHP

Amazon - JavaScript, Java, C++, Perl

Microsoft - JavaScript, ASP.NET

Wikipedia - JavaScript, PHP, Hack

eBay.com - JavaScript, Java, Scala

Pinrest - JavaScript, Django (Python), Erlang

MSN - JavaScript, ASP.NET

Twitter - JavaScript, C++, Java, Scala, Ruby on Rails

Facebook - JavaScript, Hack, PHP, Python, C++, Java, Erlang, D, Xhp, Haskell



Thank you

