



# Problem Solving through Programming in C

COE 251

WEEK 1: PROGRAMMING LANGUAGE CONCEPTS



# INTRODUCTION TO PROGRAMMING LANGUAGE CONCEPTS



# Programming Language Concepts

Algorithm

Expressed in  
some way

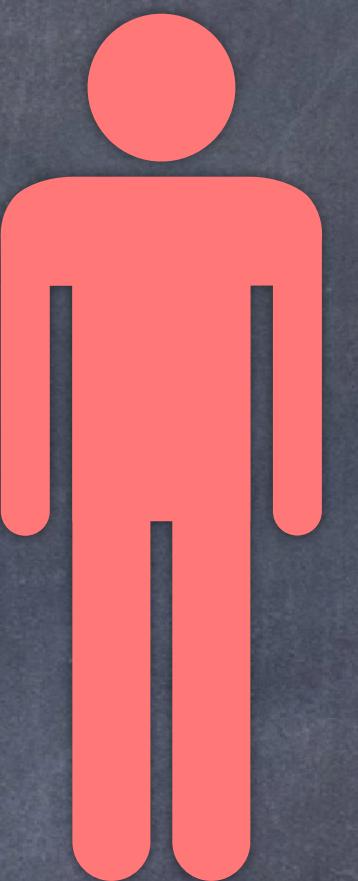
Flow  
Chart

Pseudo  
Code



Program

Language understood  
by a computer



Programmer



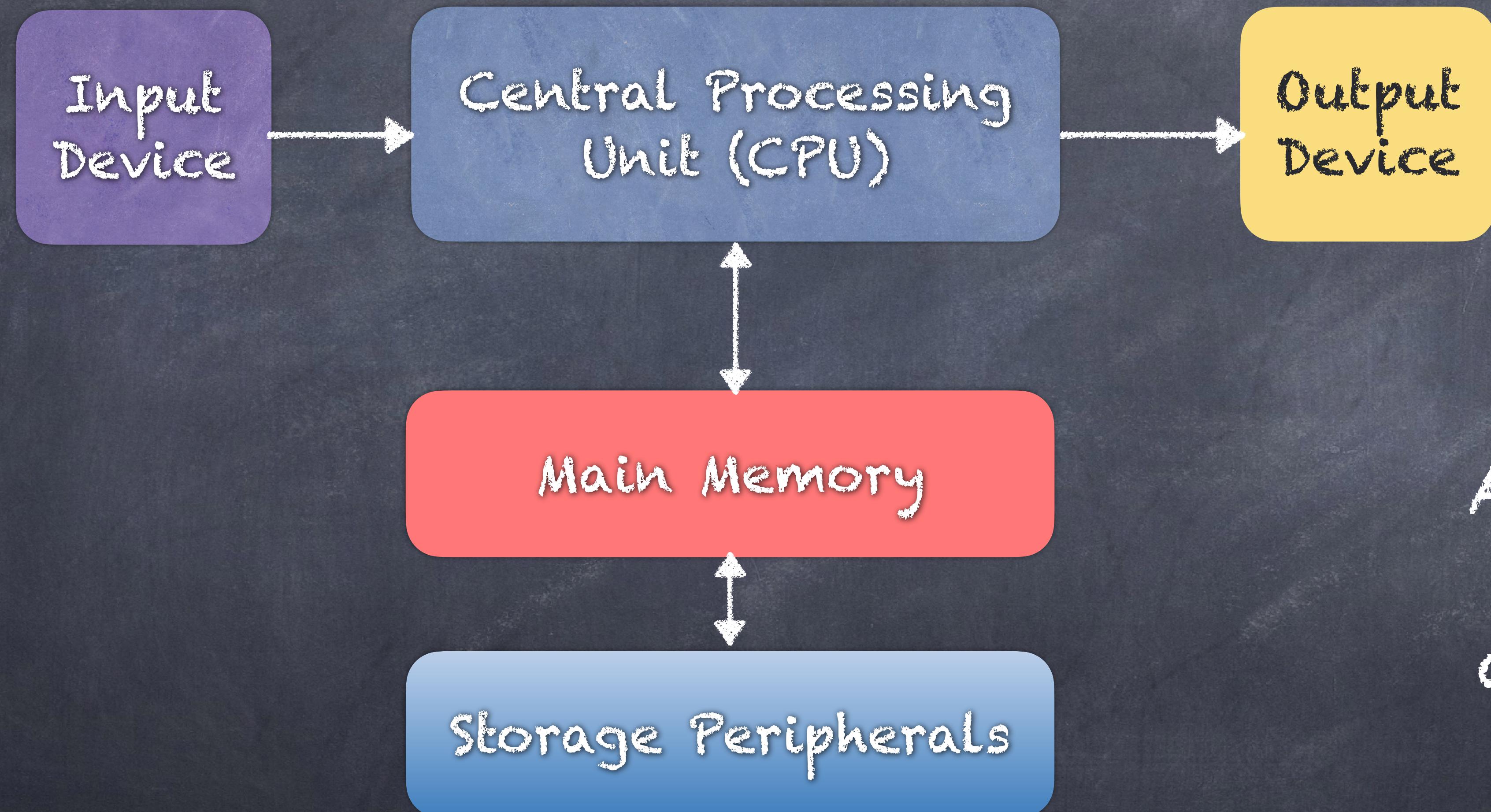
# Programming Language Concepts

**Question:**

What is the language that is understood by a computer?



# Programming Language Concepts



Basic  
Architecture  
of  
a Computer



# Programming Language Concepts

## Reading Assignment:

### Computer Number System

1. Decimal
2. Binary
3. Hexadecimal
4. ASCII
5. BCD



# Programming Language Concepts

Programmer



High Level  
Language



→ Compiler →

Compiler

Computer Language

C → C Compiler  
Java → Java Compiler  
Python → Interpreter



# Programming Language Concepts

Reading Assignment:

What is the difference between an Interpreter  
and a Compiler?



# Programming Language Concepts

## Code Execution Flow





Next ...

How does the computer handle  
Variables and memory operations?