

Introduction

Computer Programming

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CLASS INFORMATION

- ▶ Instructor: Jiraporn Pooksook
- ▶ Lecture time and Location: Tue and Wed 9-12 a.m. , EE 113
- ▶ Office: EE214
- ▶ Office hour: by appointment
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ASSIGNMENTS AND GRADING

- ▶ Homework: 10%
- ▶ Quiz: 15%
- ▶ Midterm: 30%
- ▶ Final: 30%
- ▶ Project: 15%

BOOKS AND REFERENCES

- ▶ The C Programming Language

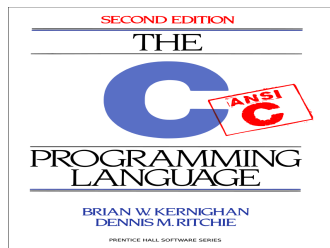


Figure: Retrieved from <https://upload.wikimedia.org/wikipedia>

TOOLS

- ▶ Codeblocks
<http://www.codeblocks.org/downloads/26>
- ▶ Code.org
<https://studio.code.org/s/express/>

EXERCISES

- ▶ Register Code.org
<https://studio.code.org/s/express/>
- ▶ Finish tasks and report what level you have already done every week.

HOW TO WRITE A PROGRAM

1. Decide which language you want to code.
2. Find a good compiler/interpreter.
3. Start writing a code.

TYPES OF PROGRAMMING LANGUAGES

1. Static Programming Language : Java, C, C++, etc.
 - ▶ declare the type of variables before use.
 - ▶ need compiler to read all instructions and run finally.
2. Dynamic Programming Language : Python, Ruby, etc.
 - ▶ a variable can be any type.
 - ▶ an interpreter read and run line by line.

A PROCESS OF WRITING CODE TO EXECUTE

1. You write code into a readable file, `xx.c` in c language
2. When you compile your code, the compiler will read your code and translate it into an object file(`xx.c` to `xx.o`)
3. When you run your code, the compiler will combine your object files with necessary libraries and make them into executable file (`xx.o` to `xx.exe`)

HOW A COMPUTER WORKS

1. Each parts in a computer.
2. What is a binary number?
3. Turing Machine is a model of modern computer. Let's understand how it works.