Introducing C

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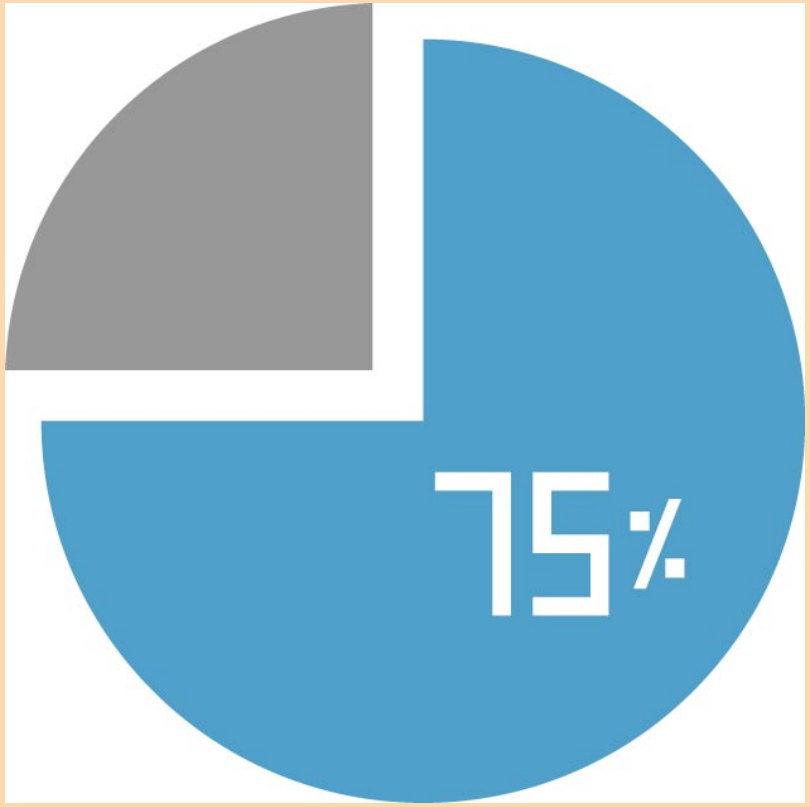
2022-CPL
群号：347625548
扫一扫二维码，加入群聊。
QQ

Questionnaire



75% of students are new to programming.

To C Beginners

From Beginners to Masters

Programming

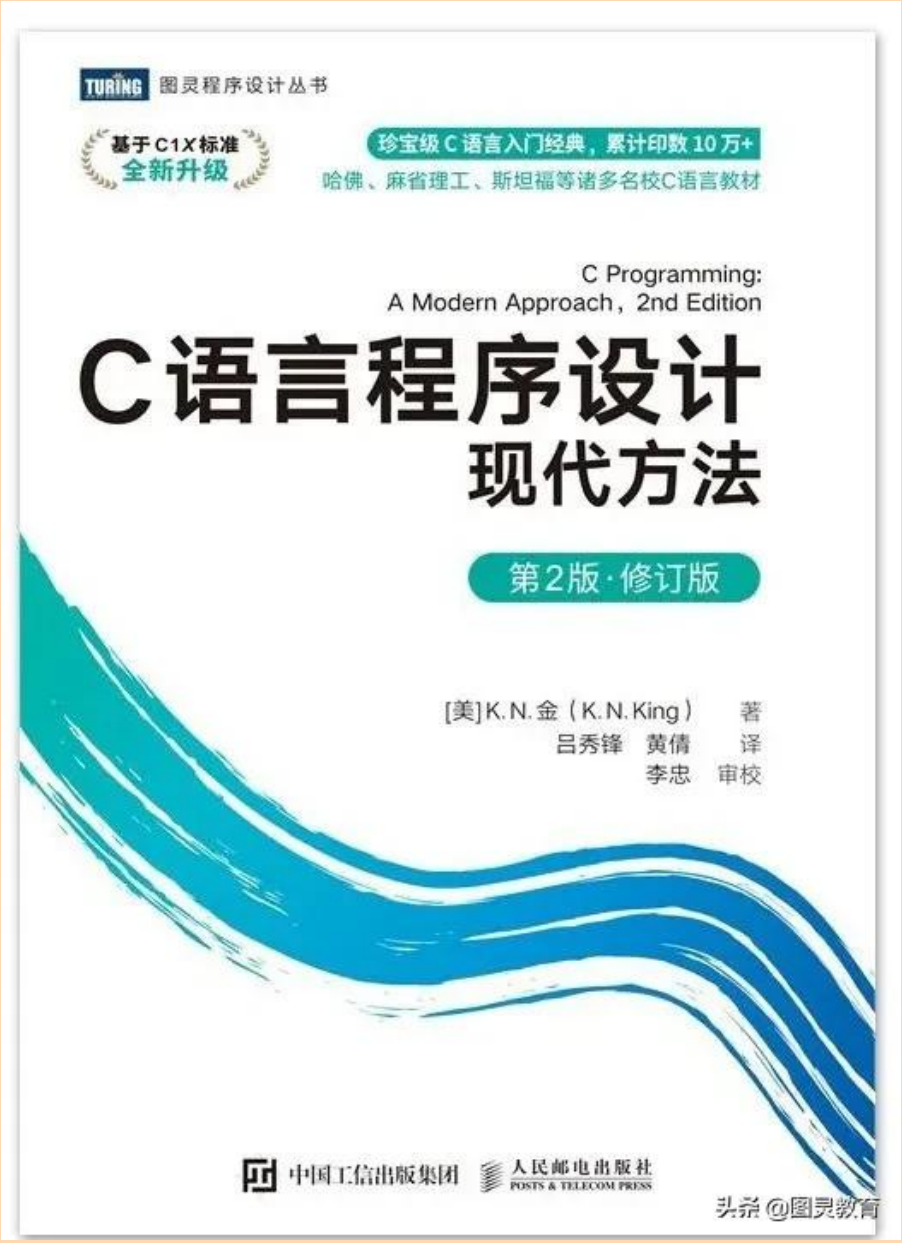
De-Programming

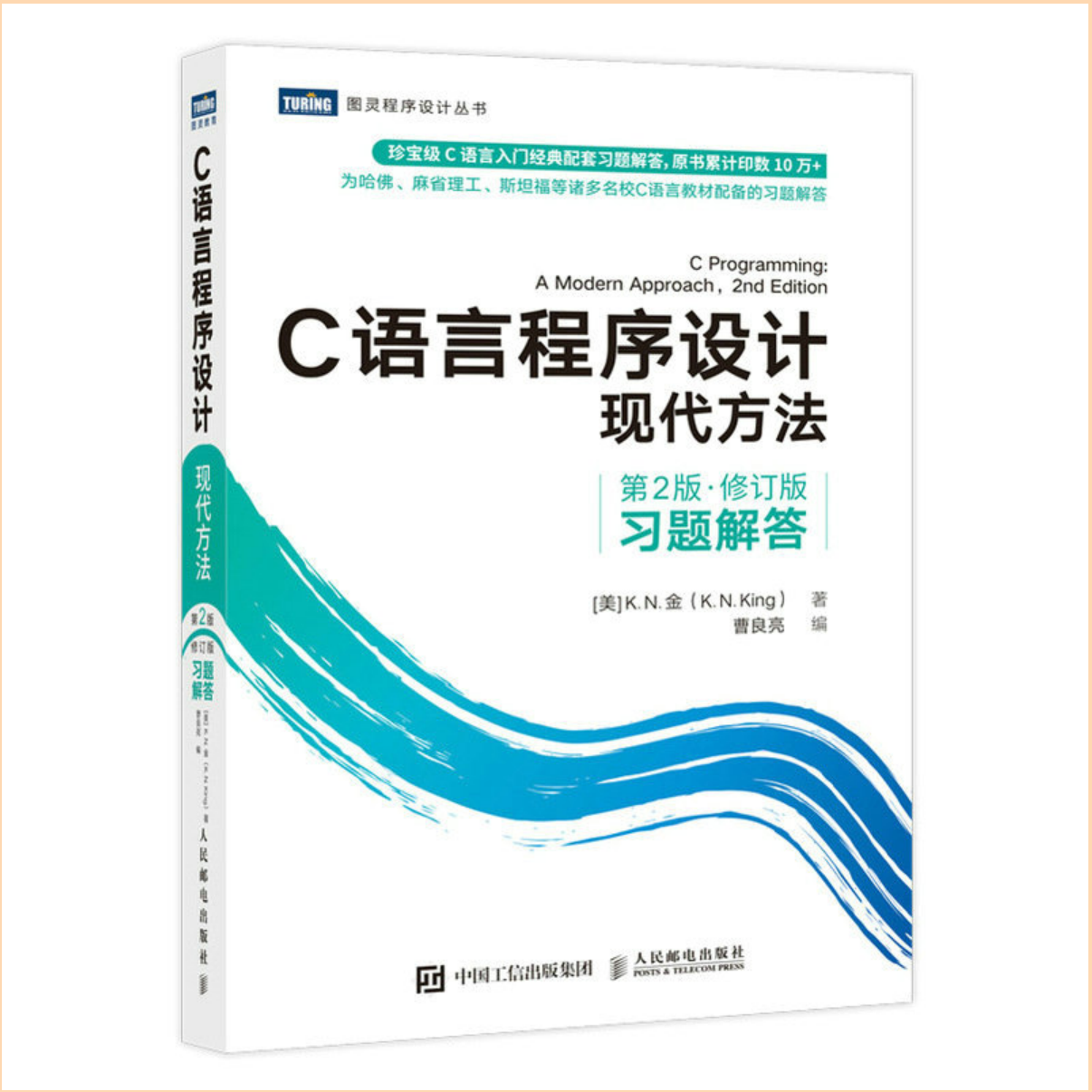
Scores

- ~~考勤~~
- ~~期中测试~~
- ~~期末笔试~~
- 编程练习 (40 分)
- 期中项目 (20 分)
- 期末项目 (10 分)
- 期末机试 (30 分)

No Plagiarism!!!

前两次总评各扣 10 分, 第三次直接判为不及格


TURING 图灵程序设计丛书
基于C1X标准
全新升级
珍宝级C语言入门经典，累计印数10万+
哈佛、麻省理工、斯坦福等诸多名校C语言教材
C Programming:
A Modern Approach，2nd Edition
C语言程序设计
现代方法
第2版·修订版
[美]K.N.金（K.N.King） 著
吕秀锋 黄倩 译
李忠 审校
中国工信出版集团
人民邮电出版社
POSTS & TELECOM PRESS
头条 @图灵教育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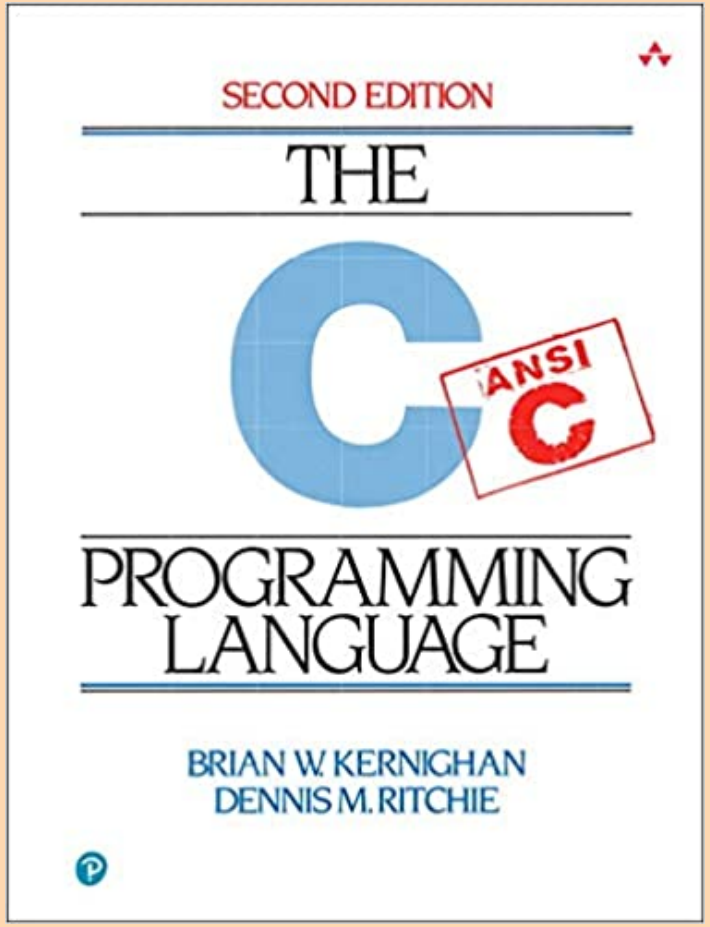
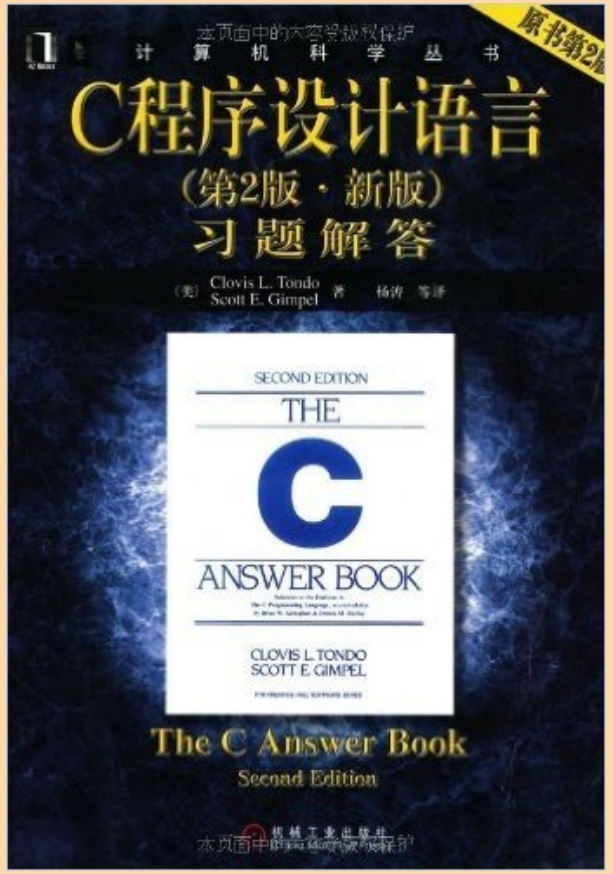
人民邮电出版社
POSTS & TELECOM PRESS

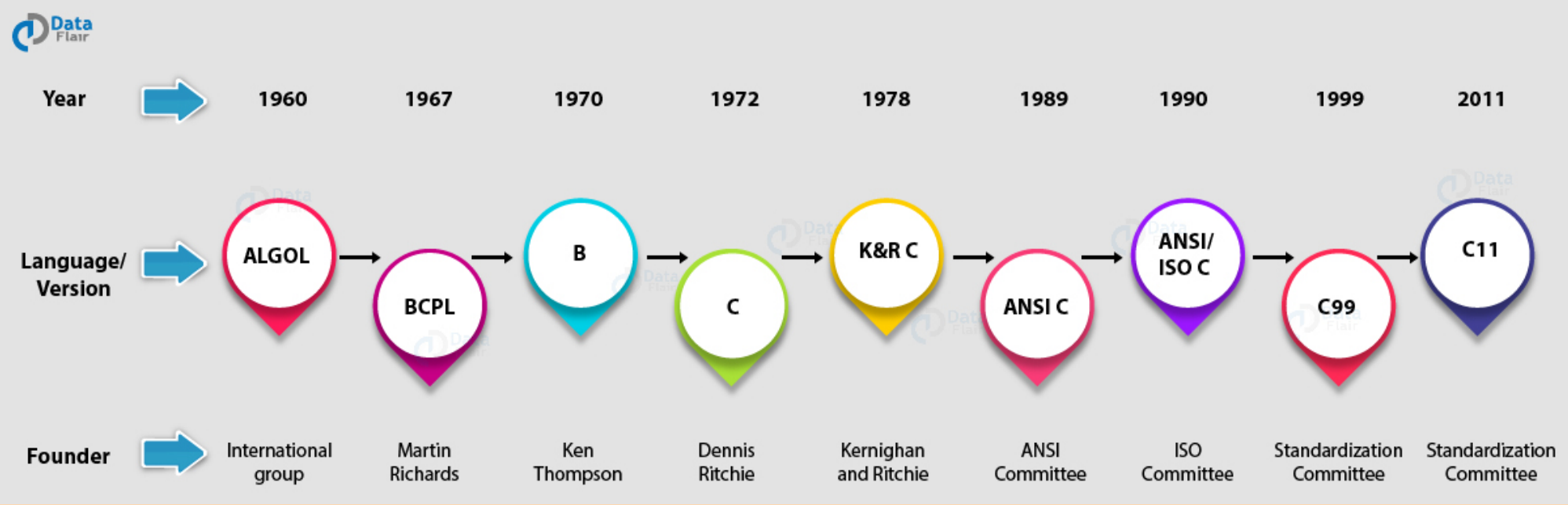
K&R C Bible (1978; 1988)





A Brief History of C

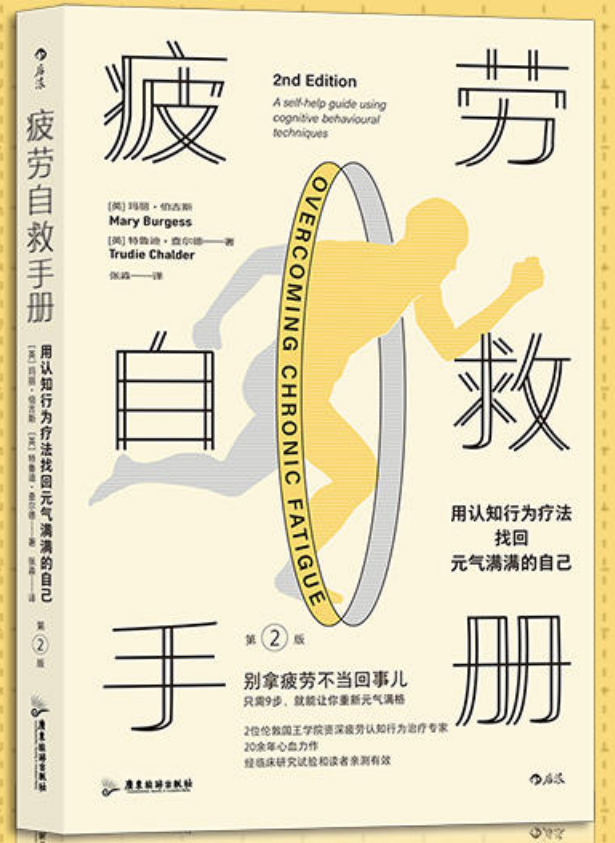
[History of C @ cppreference]



Do *NOT* become a **language lawyer**!

More Books in the Class . . .

别拿疲劳不当回事儿

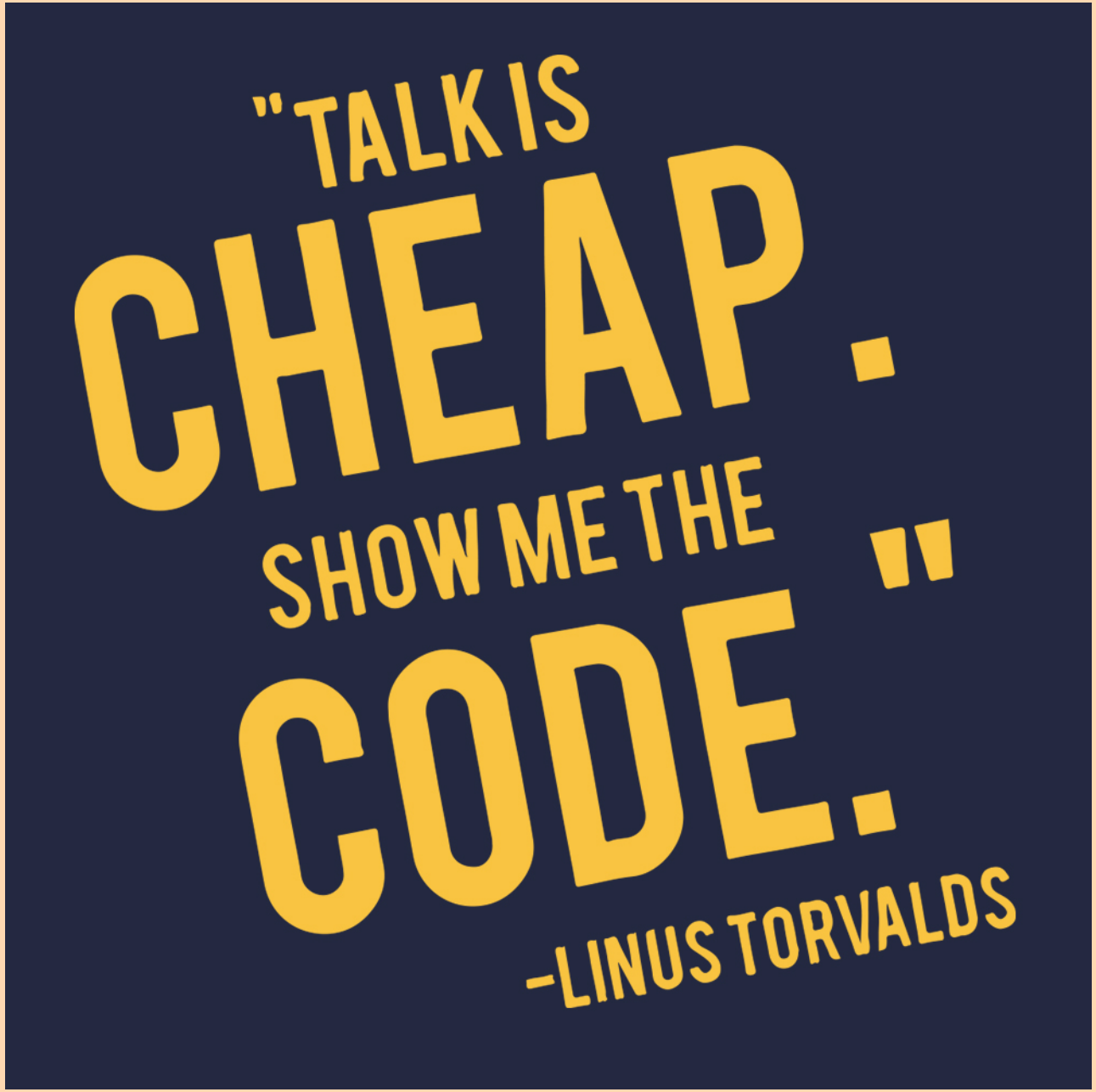


9步让你重新元气满格

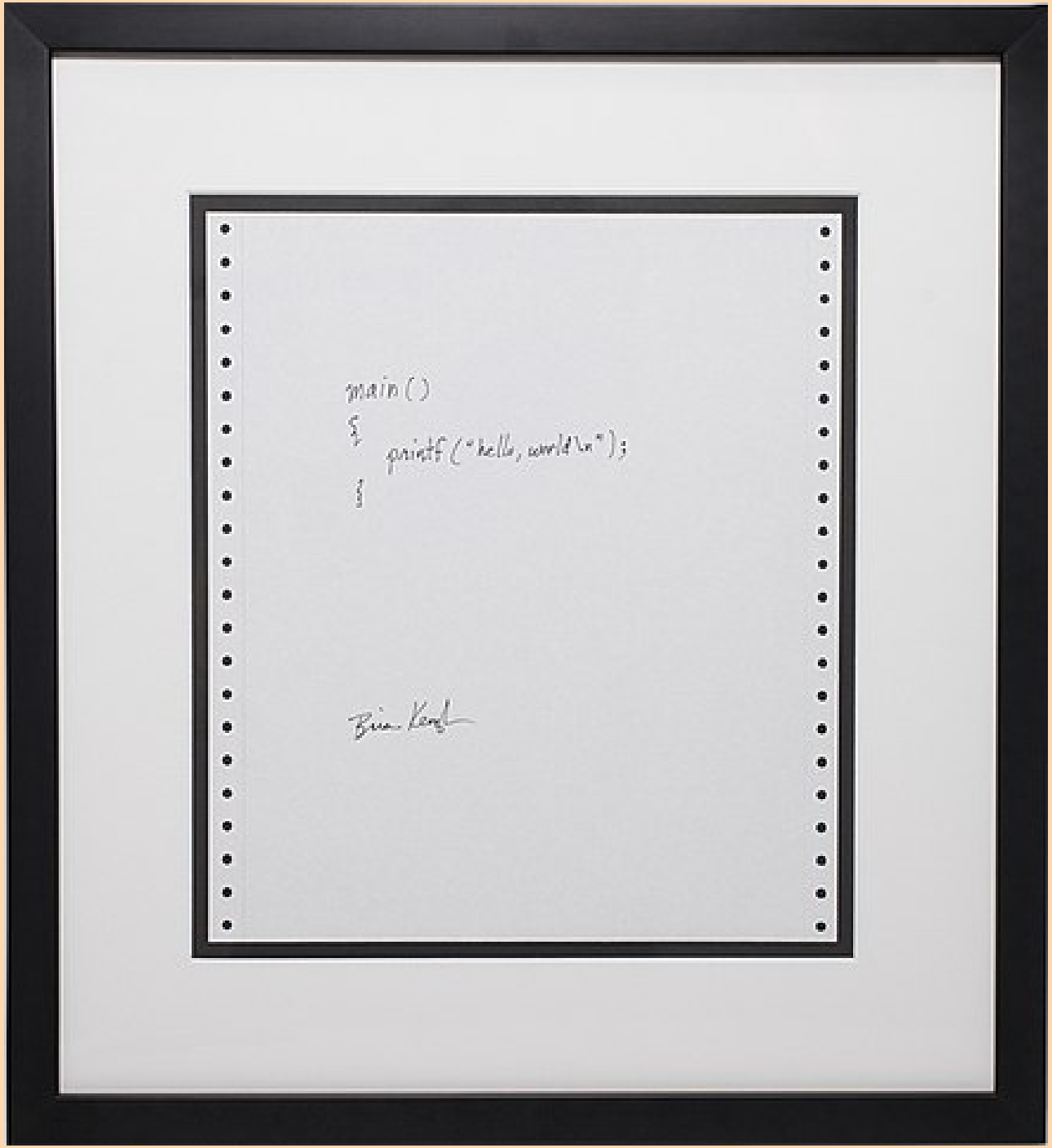
1. 观察你的活动与睡眠模式，了解疲劳是如何对你产生影响的
2. 设定让自己生活更愉快、更平衡的目标
3. 改善睡眠质量，稳定活动和休息模式

……

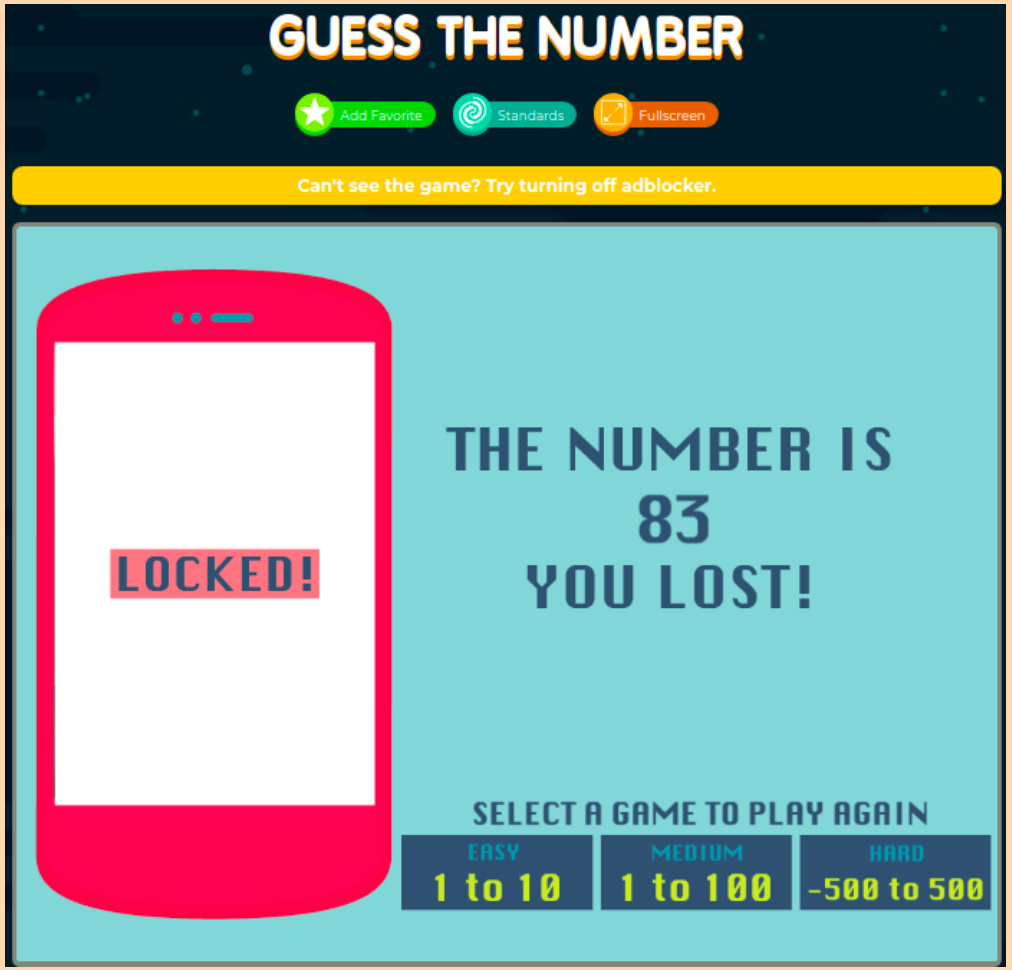

ASK ME
ANYTHING
GREAT MINDS
DISCUSS IDEAS


"TALK IS
CHEAP.
SHOW ME THE
CODE."
-LINUS TORVALDS

```
<Hello World/>
```


main()
{
printf("hello, world\n");
}
Brian Kernighan

Game: Guess the Number



Game: Guess the Number

Programming is *NOT* (only) about languages.

You learn C to express **YOUR IDEAS** with **COMPUTERS**.

Game: Guess the Number

Program = Input + Data + Operations + Output

c reference

C reference

C89, C95, C99, C11, C17, C23

Language
- Basic concepts
- Keywords
- Preprocessor
- Expressions
- Declaration
- Initialization
- Functions
- Statements

Headers

Type support
Program utilities
Variadic functions
Error handling
Dynamic memory management
Date and time utilities
Strings library
- Null-terminated strings:
  - byte – multibyte – wide

Algorithms

Numerics
- Common mathematical functions
- ~~Floating-point environment (C99)~~
- Pseudo-random number generation
- ~~Complex number arithmetic (C99)~~
- Type-generic math (C99)

Input/output support
Localization support
Atomic operations library (C11)
Thread support library (C11)

Technical specifications
- **Dynamic memory extensions** (dynamic memory TR)
- **Floating-point extensions, Part 1** (FP Ext 1 TS)
- **Floating-point extensions, Part 4** (FP Ext 4 TS)

External Links – Non-ANSI/ISO Libraries – Index – Symbol Index

Code Style

Watch the WAR between Tabs and Spaces

Code Style

styleguide

Google Style Guides

Every major open-source project has its own style guide: a set of conventions (sometimes arbitrary) about how to write code for that project. It is much easier to understand a large codebase when all the code in it is in a consistent style.

“Style” covers a lot of ground, from “use camelCase for variable names” to “never use global variables” to “never use exceptions.” This project (google/styleguide) links to the style guidelines we use for Google code. If you are modifying a project that originated at Google, you may be pointed to this page to see the style guides that apply to that project.

This project holds the C++ Style Guide, C# Style Guide, Swift Style Guide, Objective-C Style Guide, Java Style Guide, Python Style Guide, R Style Guide, Shell Style Guide, HTML/CSS Style Guide, JavaScript Style Guide, TypeScript Style Guide, AngularJS Style Guide, Common Lisp Style Guide, and Vimscript Style Guide. This project also contains cpplint, a tool to assist with style guide compliance, and google-c-style.el, an Emacs settings file for Google style.

[Code Style @ CLion]

Code Style (More Importantly!)

G.OTH.03 禁用rand函数产生用于安全用途的伪随机数

【描述】

rand()函数生成的随机数是可以预测的，所以禁止使用rand()函数生成的随机数用于安全用途，必须使用安全的随机数生成方式，如：类Unix平台的/dev/random文件。

典型的安全用途场景包括（但不限于）以下几种：

- 会话标识SessionID的生成；
- 挑战算法中的随机数生成；
- 验证码的随机数生成；
- 用于密码算法用途（例如用于生成IV、盐值、密钥等）的随机数生成。