

# C++ Programming

## Tackling Practice & Homework

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# Two-edged sword

- There is **only one way** to build skills
  - Practice makes perfect
- As a teacher: a course with wide set of exercises is a **two-edged sword**
  - Some students enjoy and learn what they don't learn anywhere
  - Other students get frustrated for failing to get them done
    - 1/5 stars with \*\*\*\* comment
- As someone with passion of *real teaching* I take the **risk**
  - Students shouldn't be cheated with easy challenges
  - Students must be really challenged most of the time
  - But: Class shouldn't be  $1+1 = 2$ , and the homework is build a rocket
    - Fair practice first, then homework



Success is most often  
achieved by those who don't  
know that failure is inevitable.

Coco Chanel

 quote fancy

# Practice & Homework

- **Practice** per (most of) topics
  - Especially fundamentals and OOP
  - Stop the video. Challenge yourself. Listen to my solutions
  - Easy to hard range
- Easy to hard **homework** with their **coding** solutions
  - Easy to hard range
- Small-to-large set of **projects** to build up project building and design skills
  - From 200 lines of code to 1200 lines of code (optimal)
    - Your code will be 2-4 in size

# Handling the difficulties

- Moving to medium/hard challenges
  - Typically you will fail
  - Sometimes fail to solve, but manage to understand the solution
  - Sometimes fail to solve, and fail to understand the solution
- ToDo list approach.
  - Give a serious trial for the practice & homework (e.g. 30 min)
  - Check out my solution
  - My codes will typically be smarter & shorter than yours
  - Putting effort in understanding my solutions will teach you a lot
  - What is hard to do/understand, put in the todo list and come back later

*“Acquire knowledge and impart it to the people.”*

*“Seek knowledge from the Cradle to the Grave.”*