Code Quality Rubric

“Perfection is not attainable, but if we chase perfection we can catch excellence.”

- Vince Lombardi

Throughout our classes we discuss *quantitative, qualitative, and semantic* concerns with our work, with several examples of improvements that we can make. The chart below aggregates some quality coding practices into these overall categories. No codebase is perfect, however, *“professional quality”* work is considered to show acknowledgement and attention to these dimensions.

Category	Focus	In-depth
Quantitative	**Completeness (a.k.a MVP)** : Does your work achieve the required task?	“What does MVP mean and why you need It” By Mariia Lozhka
	Maintainability: Is it easy to adjust your code if you have to?	“For Secure Code, Maintainability Matters” by G. Ann Campbell
	Scalability : Will your codebase easily grow to meet new requirements? Will it work well with a larger input size?	“What the hell is scalable code anyway?” by Saras Arya
	Robustness : Will your code still work given unexpected circumstances?	“How to write robust code” by Salvatore Iovene
	Efficiency : Does your solution avoid detours?	“Big-O Notation Explained with Examples” by Vineet Choudhary
	Reusability: Can parts of this work be reused for similar problems?	“The Challenge of Code Reuse” by Richard Bellairs
Qualitative	**Concise**: Does your code avoid redundancies?	“Don’t repeat yourself” - Wikipedia
	Readability : Is it easy to read your code at a glance and understand how it works?	“What is Code Readability?” by Aakansha Damani
	Documentation : Do you explain how your code works?	“The eight rules of good documentation” by Adam Scott
	Testing : Are you testing your code for different circumstances?	“The A-Z Guide to the Software Testing Process” By Ulf Eriksson

	Debugging : Are you using debugging techniques?	“10 Debugging Tips for Beginners” By Hartley Brody
Semantic	**UI/UX Considerations** : How will a user interact with your product?	“Part 1 — The Design of Everyday Things (Revised & Expanded Edition)—Book Summary & Key Points” Book by Donald Norman, Article by Lim Zhiyang
	Data Structure Considerations : Is the data represented well?	“Database Design and Modeling Fundamentals” By Brent Huscher
	Convention : Is the project structure similar to other projects on the same framework?	"Convention over configuration” - Wikipedia