

C++ Programming

UML in Practice

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Teaching, Training and Coaching since more than a decade!

Artificial Intelligence & Computer Vision Researcher

PhD from Simon Fraser University - Canada

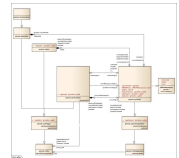
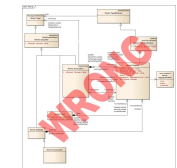
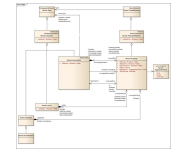
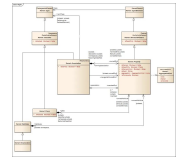
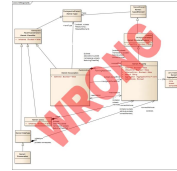
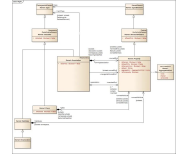
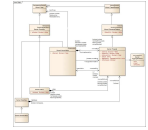
Bachelor / Msc from Cairo University - Egypt

Ex-(Software Engineer / ICPC World Finalist)

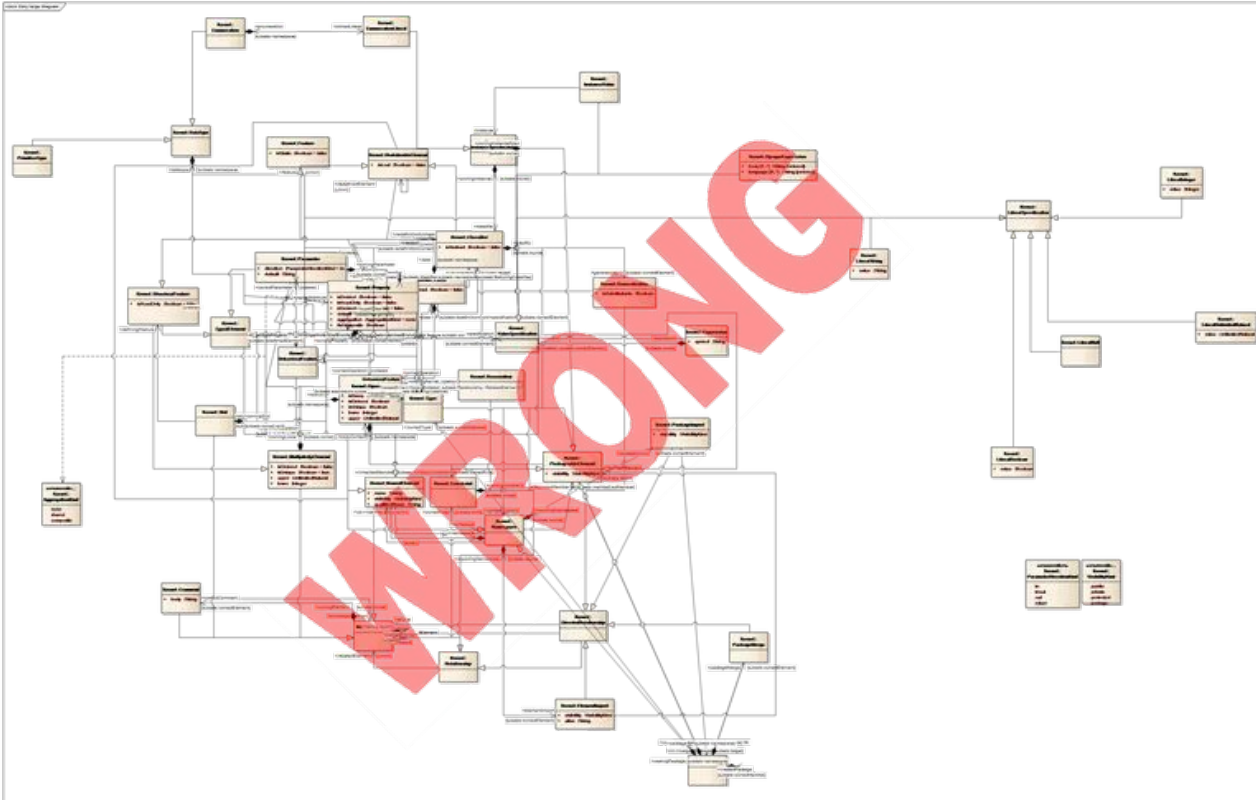


Class Diagram: UML Best Practice

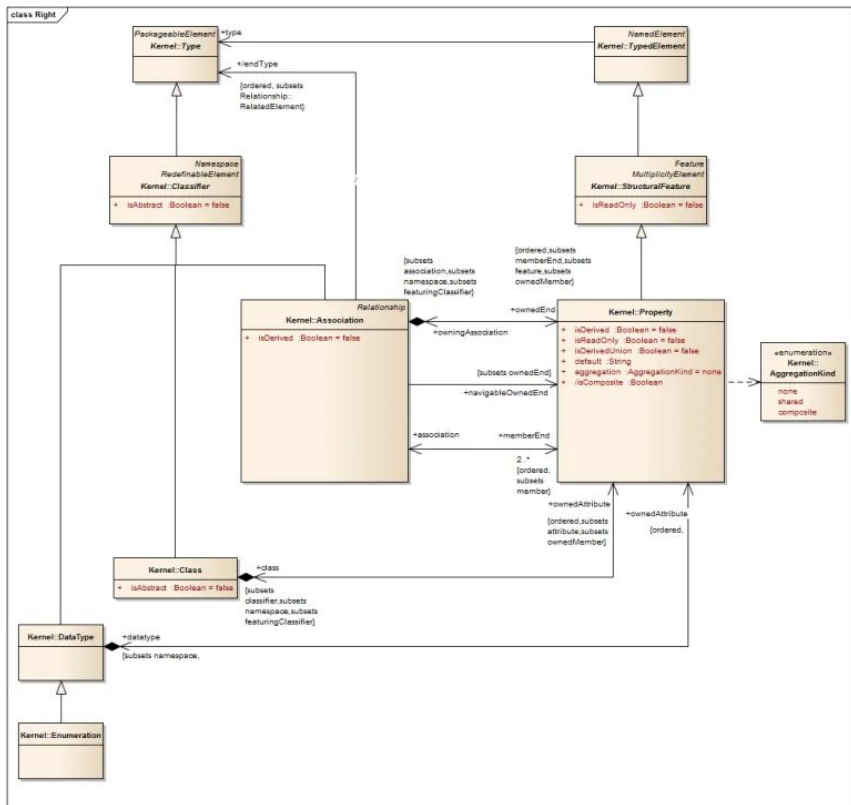
- Many diagrams can be so useless / hard to get
- Future: [reading](#) [reading](#)
- 5 Tips
 - Less is more (Providing a lot just confuse)
 - No Crossings (Don't cross lines)
 - Orthogonality (All lines vertical or horizontal)
 - Parents Up (Inheritance parent always above)
 - Tidy Up (Clean view, e.g. alignments)



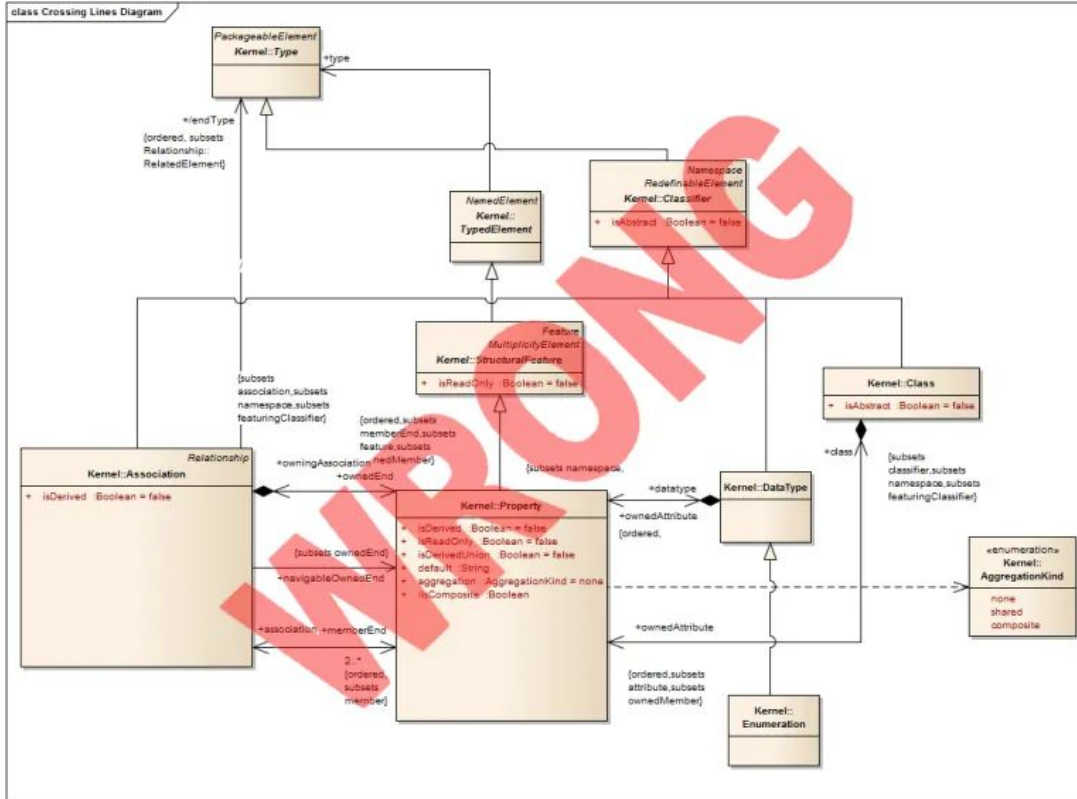
Rule #1: Less is more



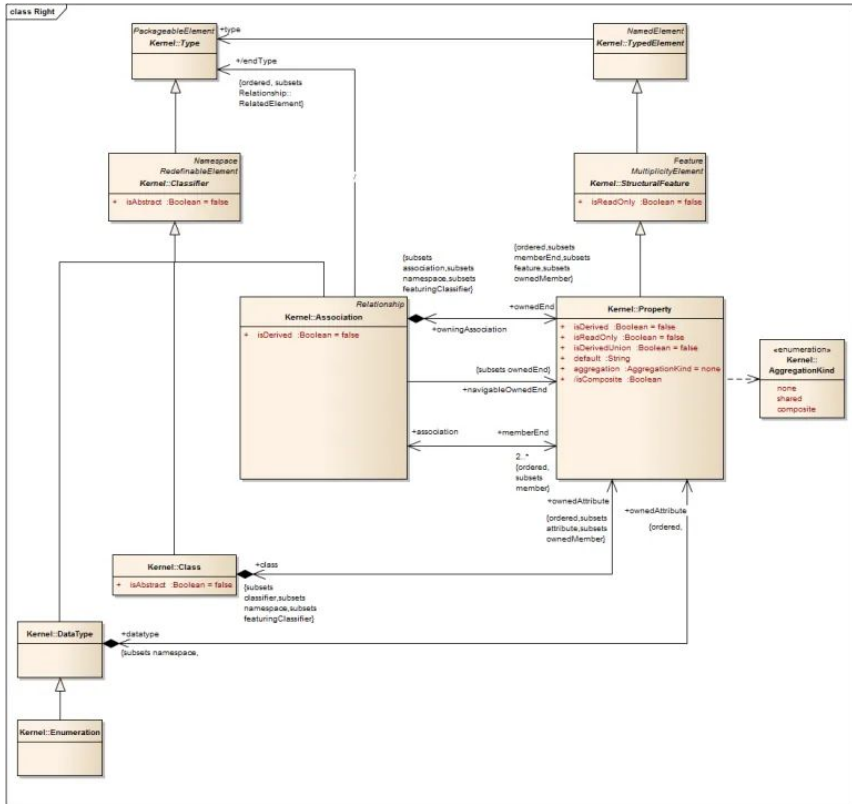
Rule #1: Less is more



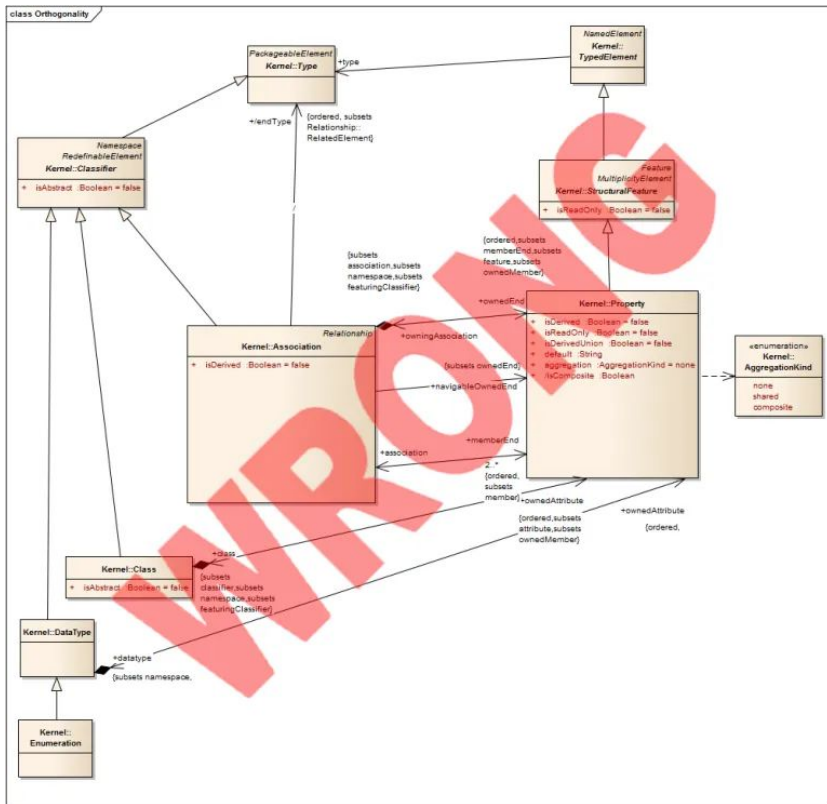
Rule #2: No Crossings



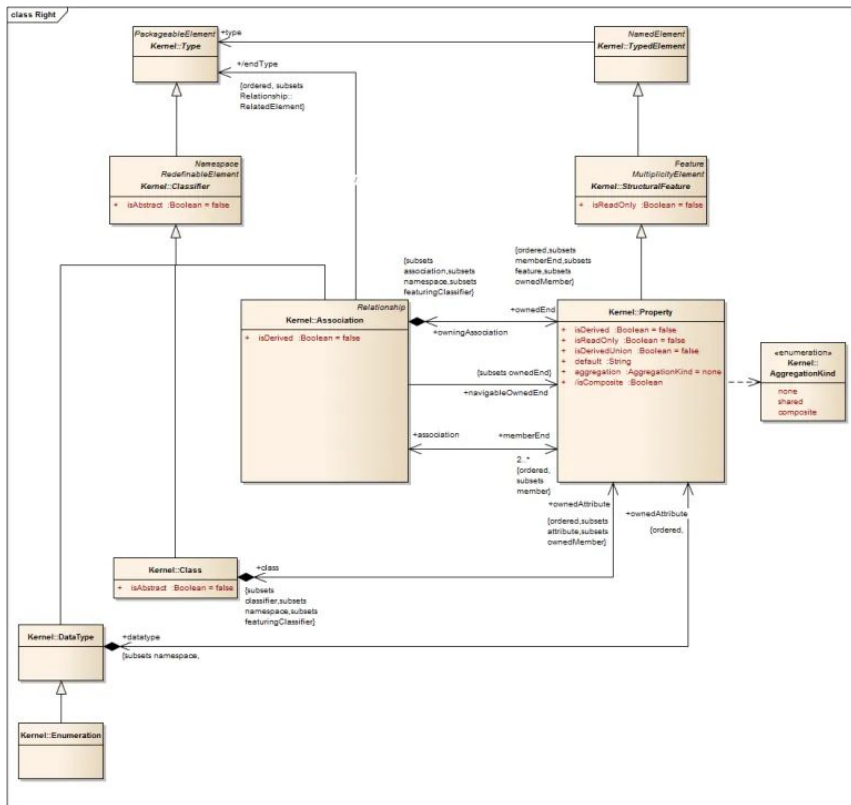
Rule #2: No Crossings



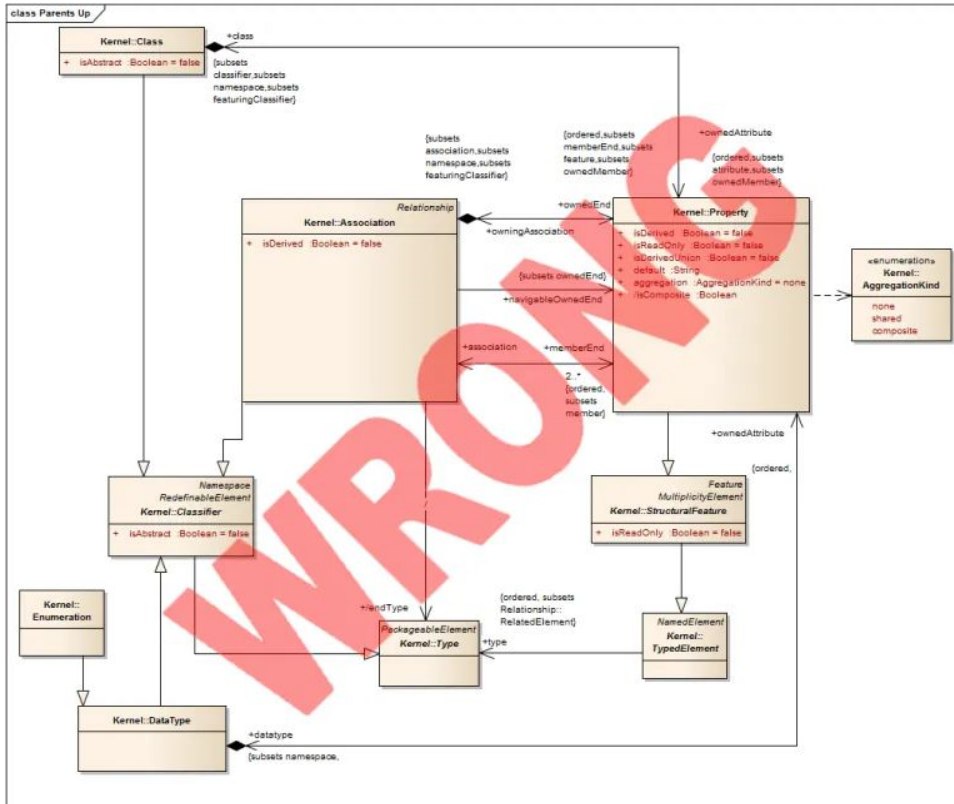
Rule #3: Orthogonality



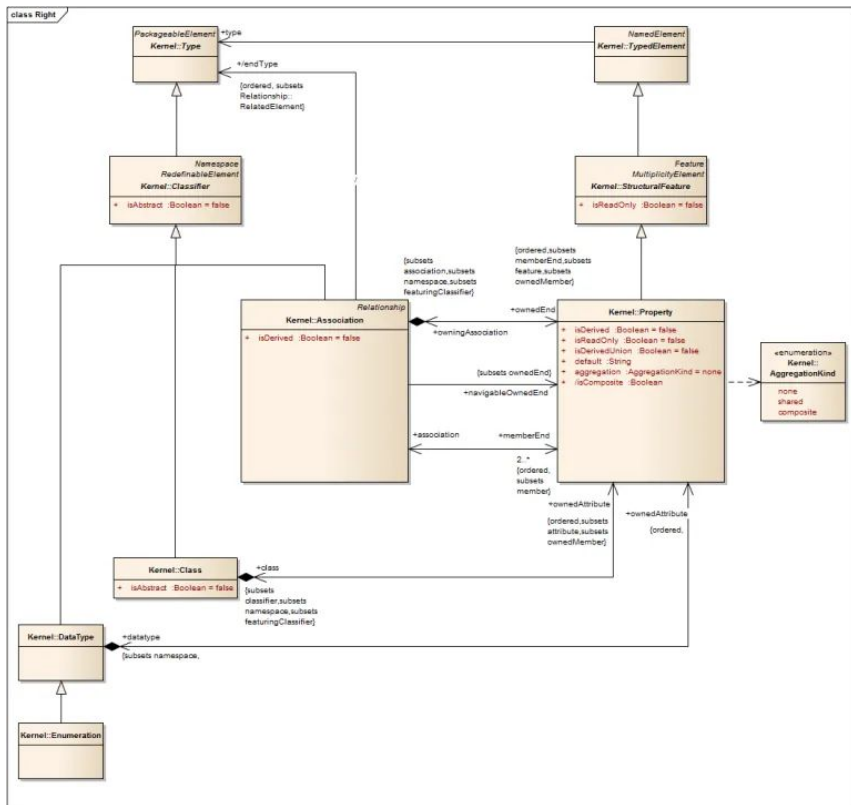
Rule #3: Orthogonality



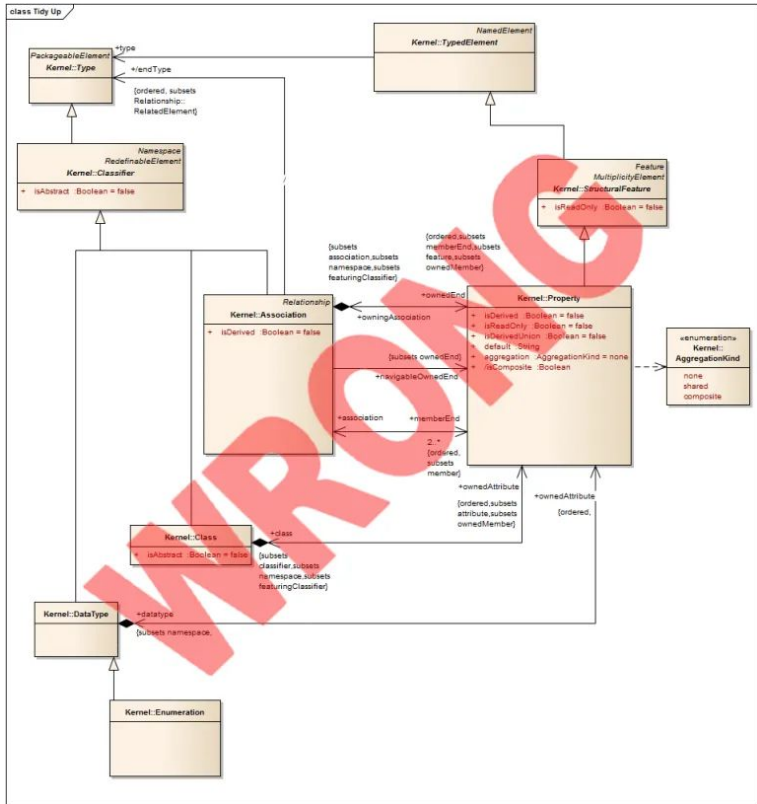
Rule #4: Parents Up



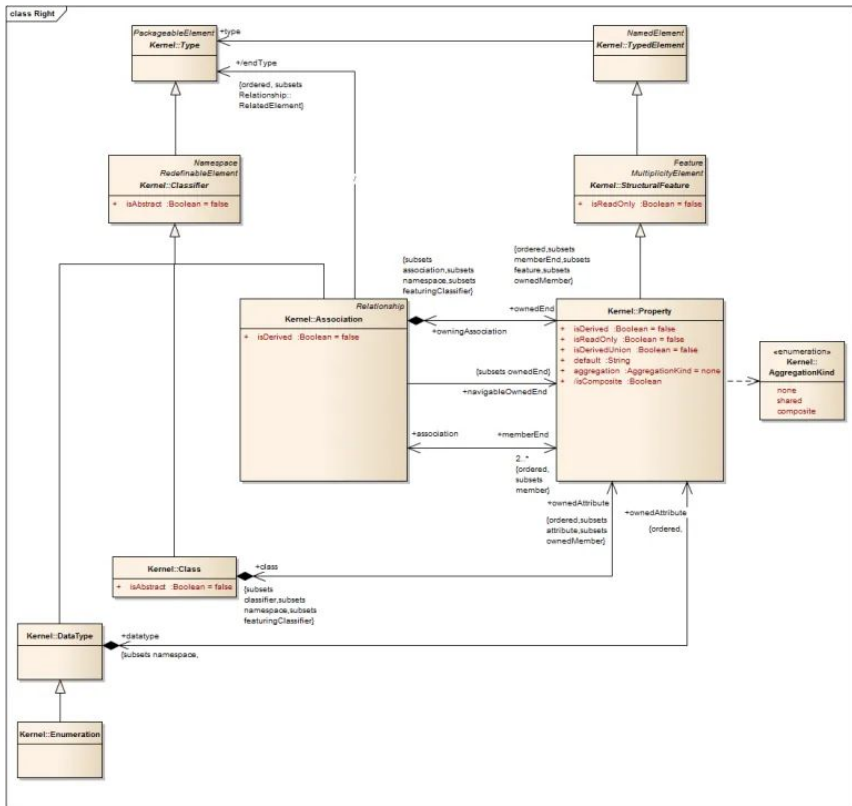
Rule #4: Parents Up



Rule #5: Tidy Up



Rule #5: Tidy Up



UML in Practice

- Some companies never/rarely use
 - Just use a **whiteboard**. Team brainstorms and draws to communicate thoughts
 - New employee? A bit trouble. Some high level explanation + code deep dive
- In many small projects (3-6 month), maybe no diagrams
- Big projects: create some **high level** diagrams
 - Most important: [Class - Sequence - State - Activity] **Diagrams**
- **Agile** challenge: Diagrams will be outdated soon due to rapid changes
- Tips
 - Learn the notations & diagrams. Think twice before creating diagram. Focus on high level
- Future readings
 - [Reading reading reading](#)

“Acquire knowledge and impart it to the people.”

“Seek knowledge from the Cradle to the Grave.”