Real World Composition Pitfalls

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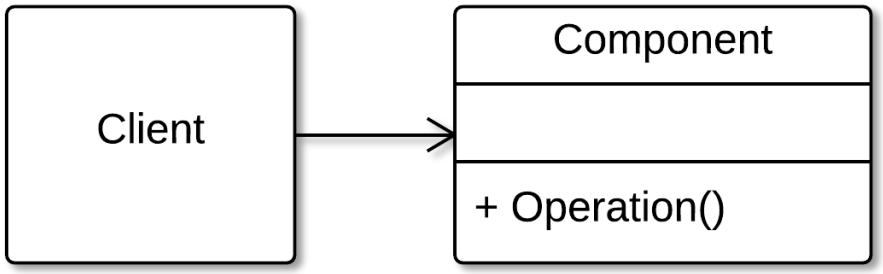
About the Composite Design Pattern



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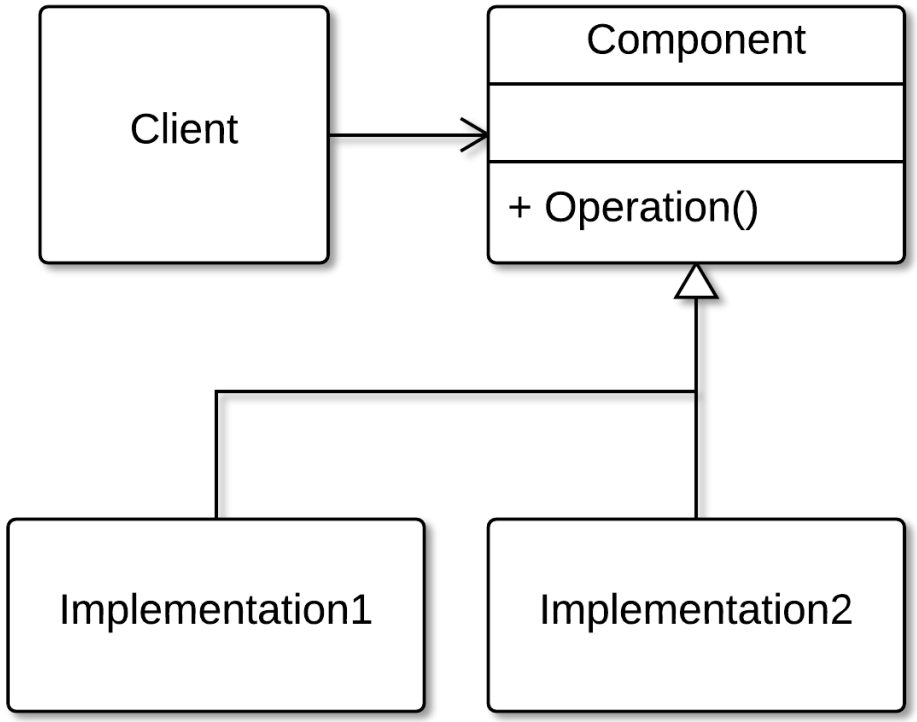

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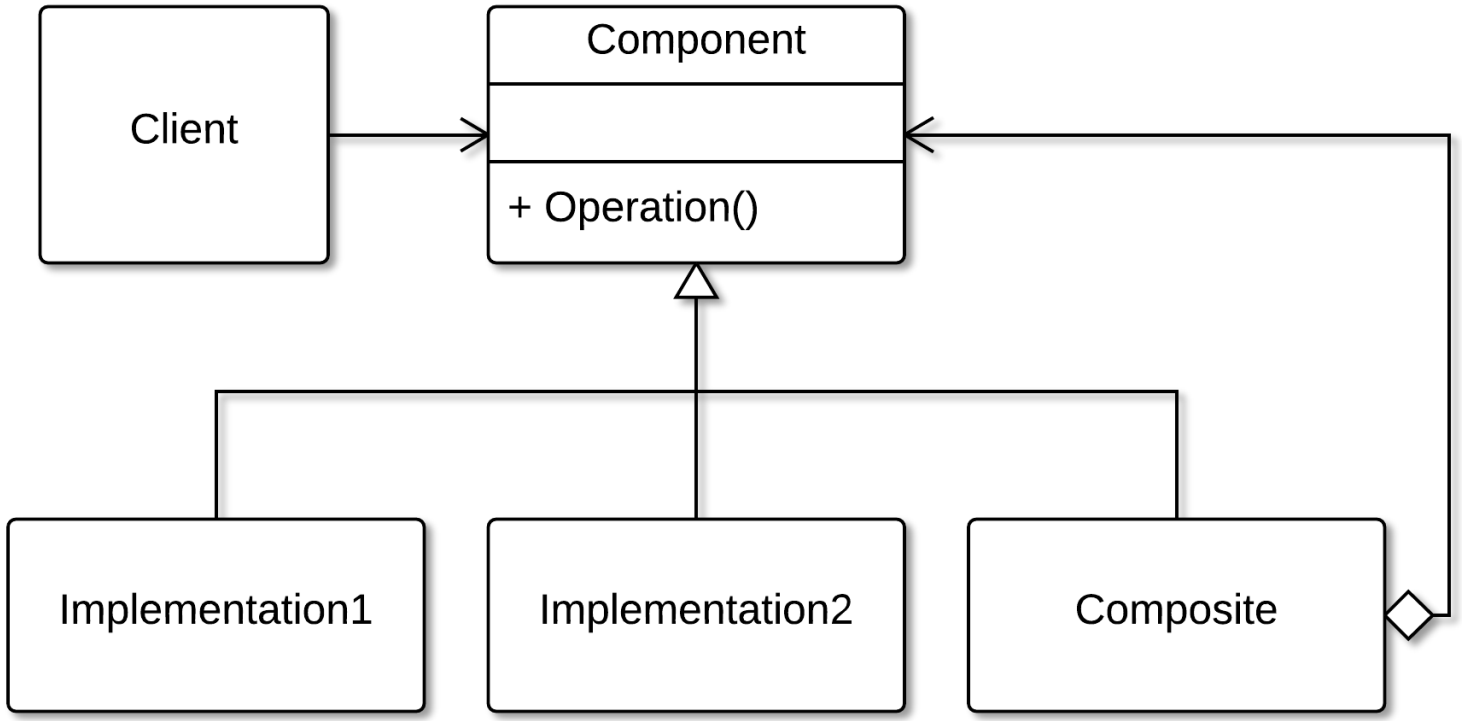

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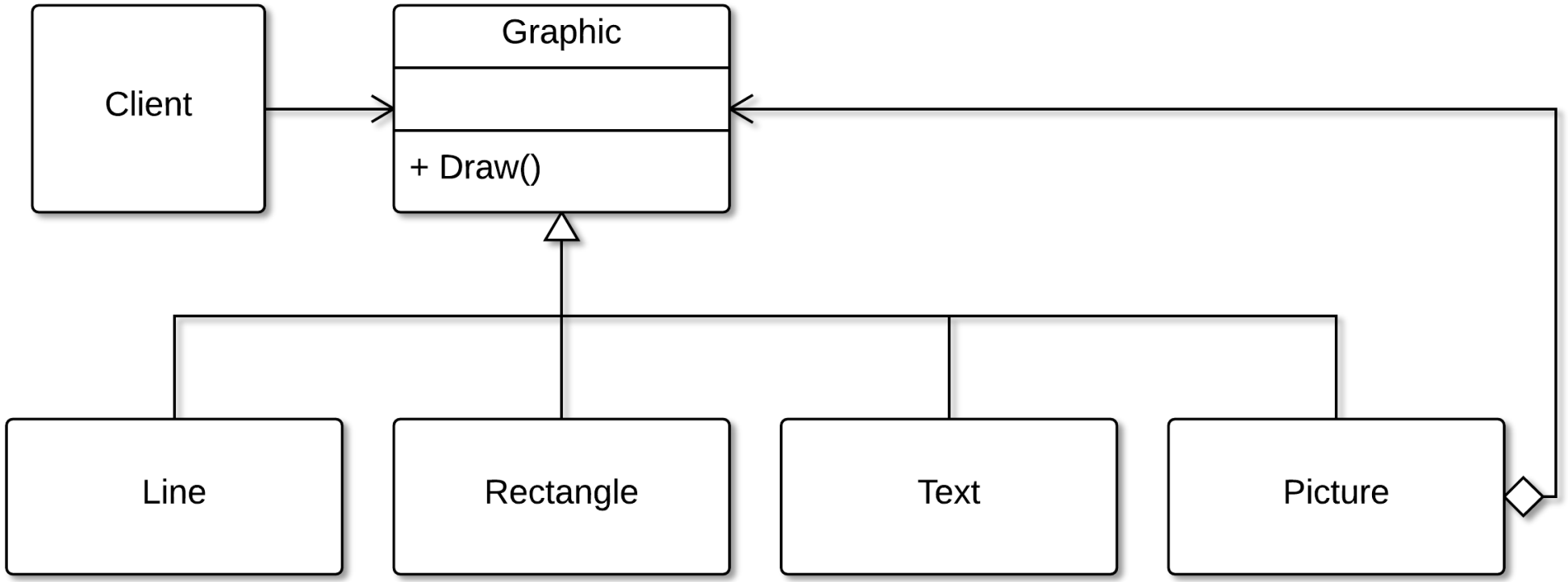

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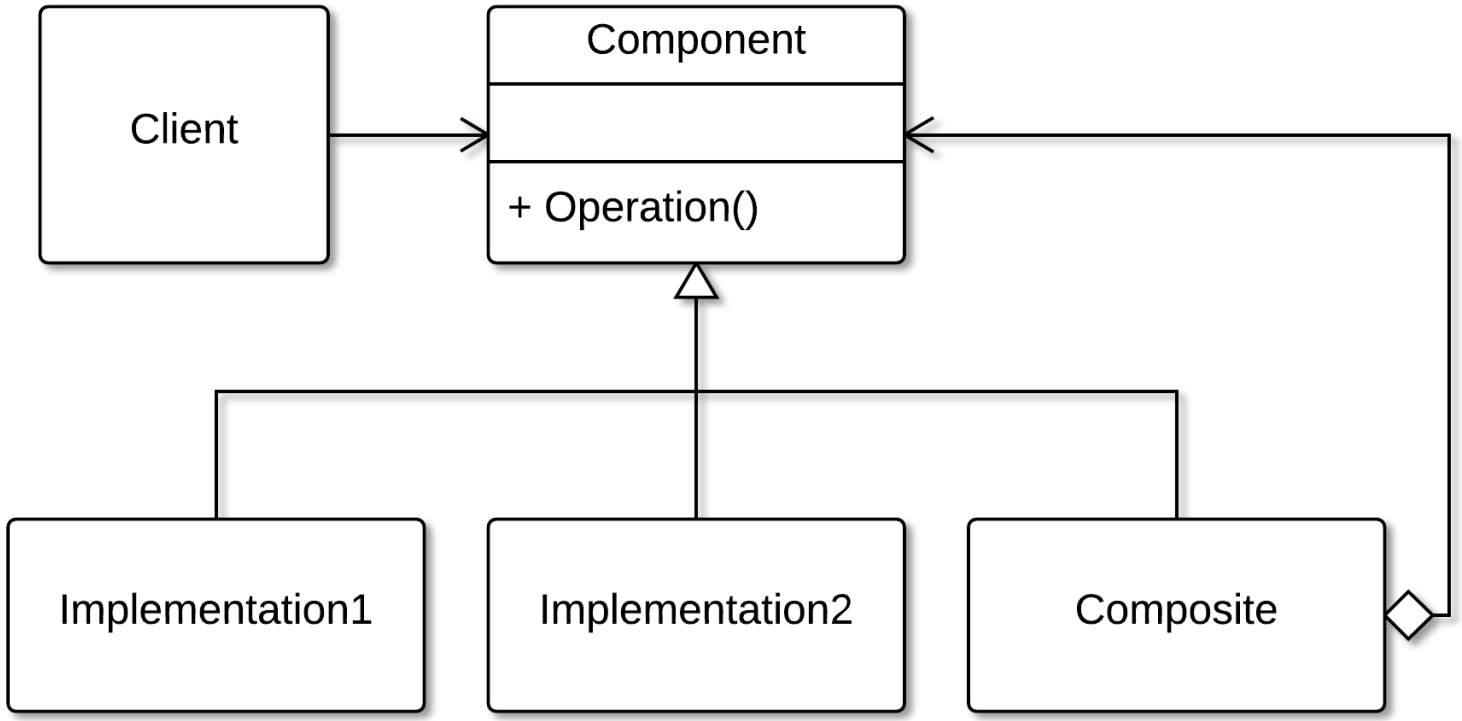

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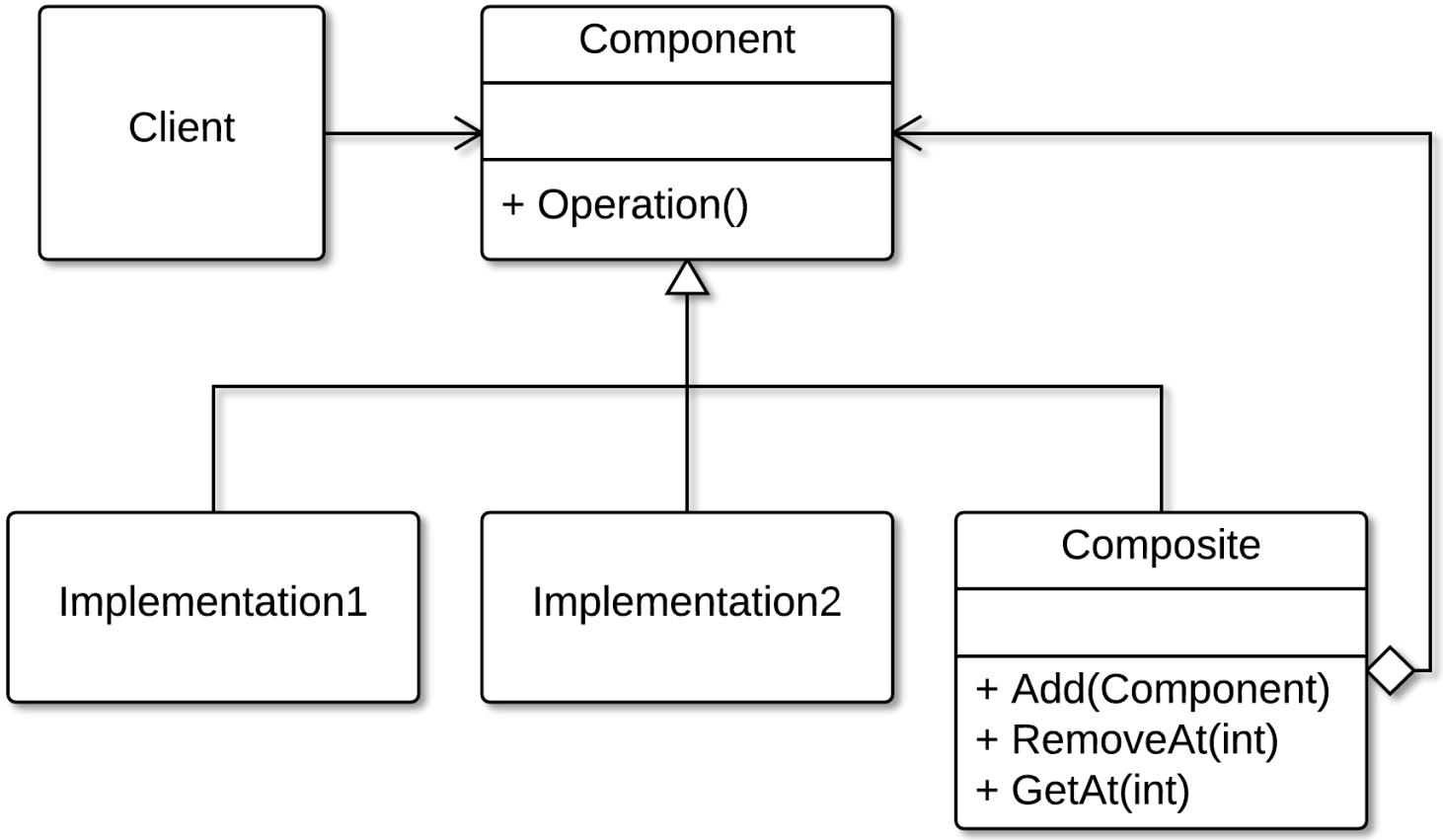

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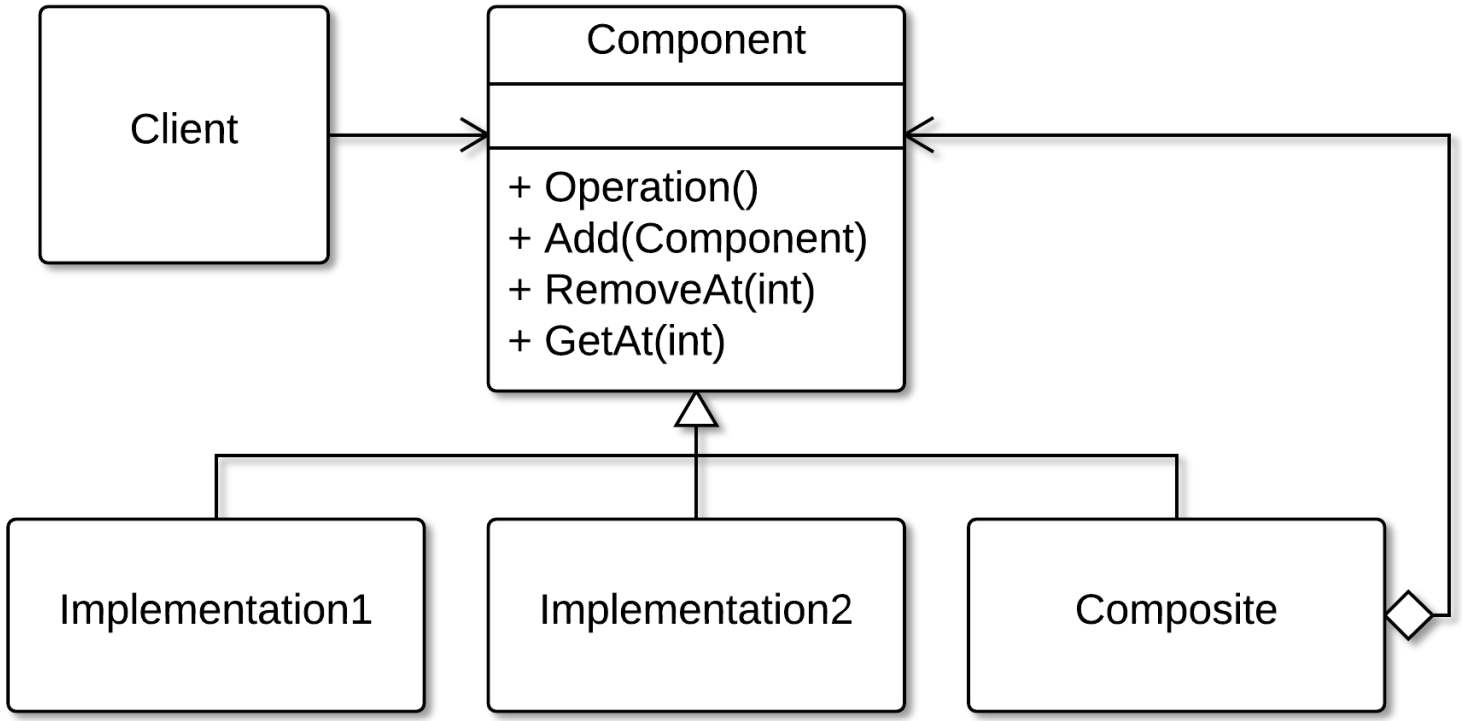
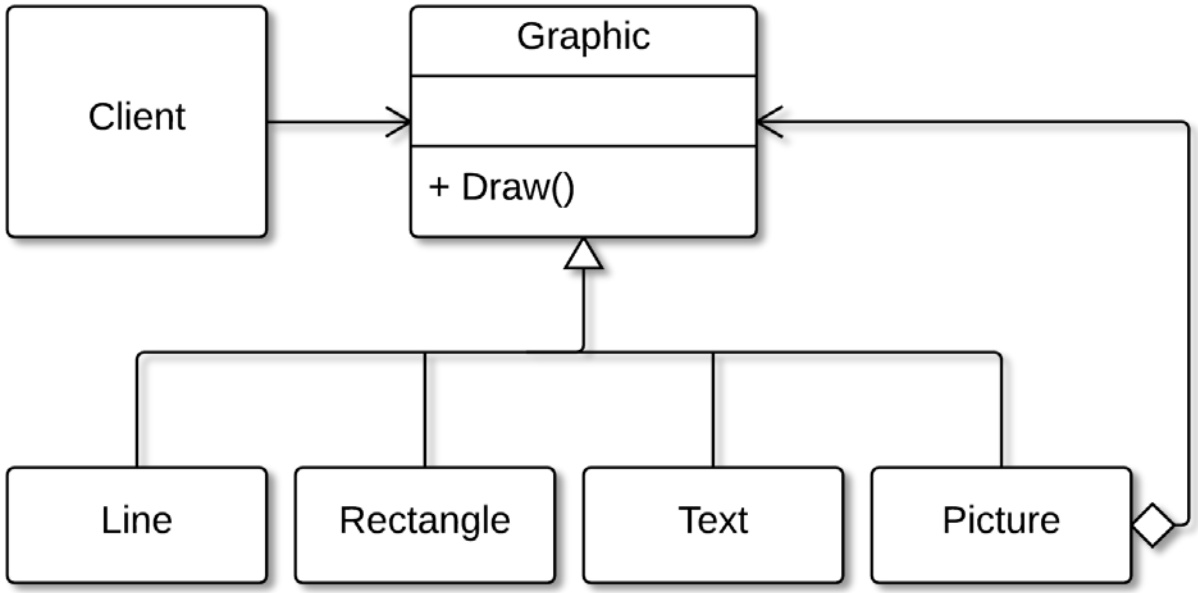
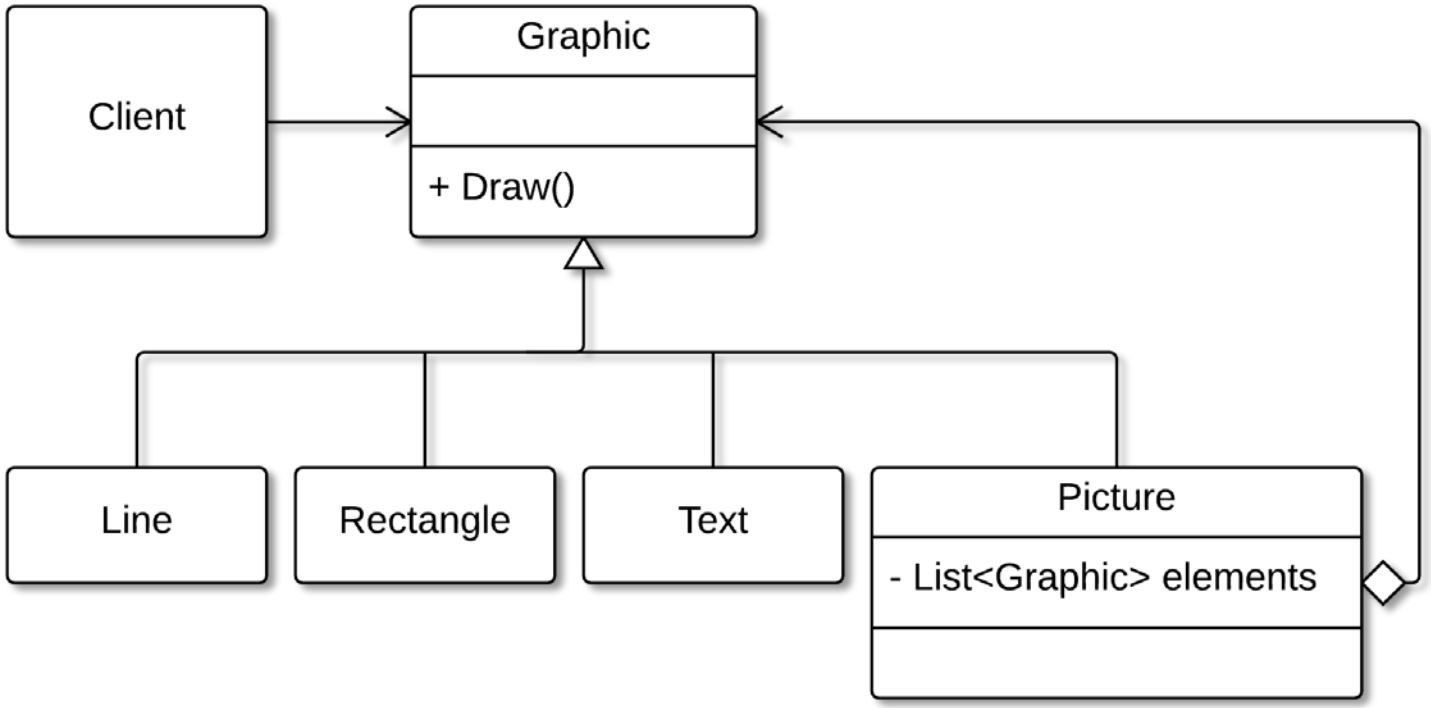
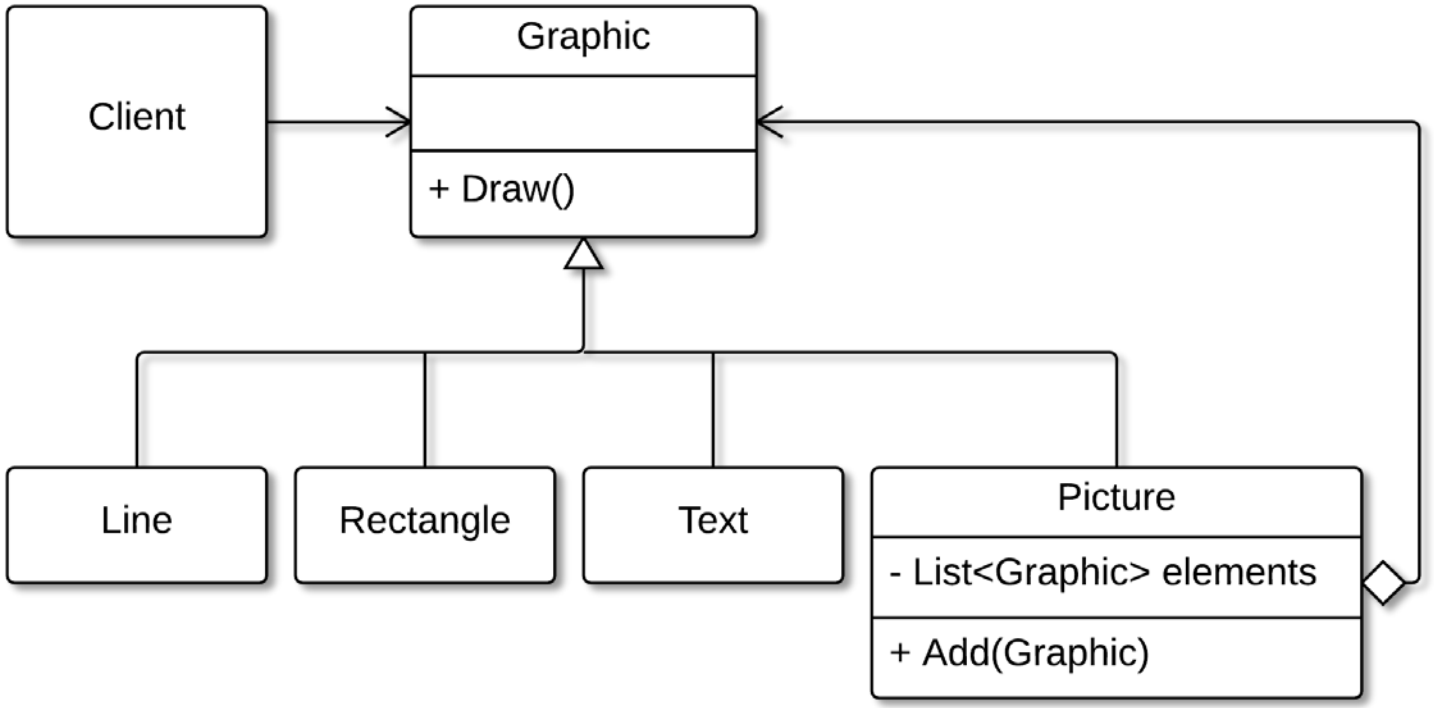
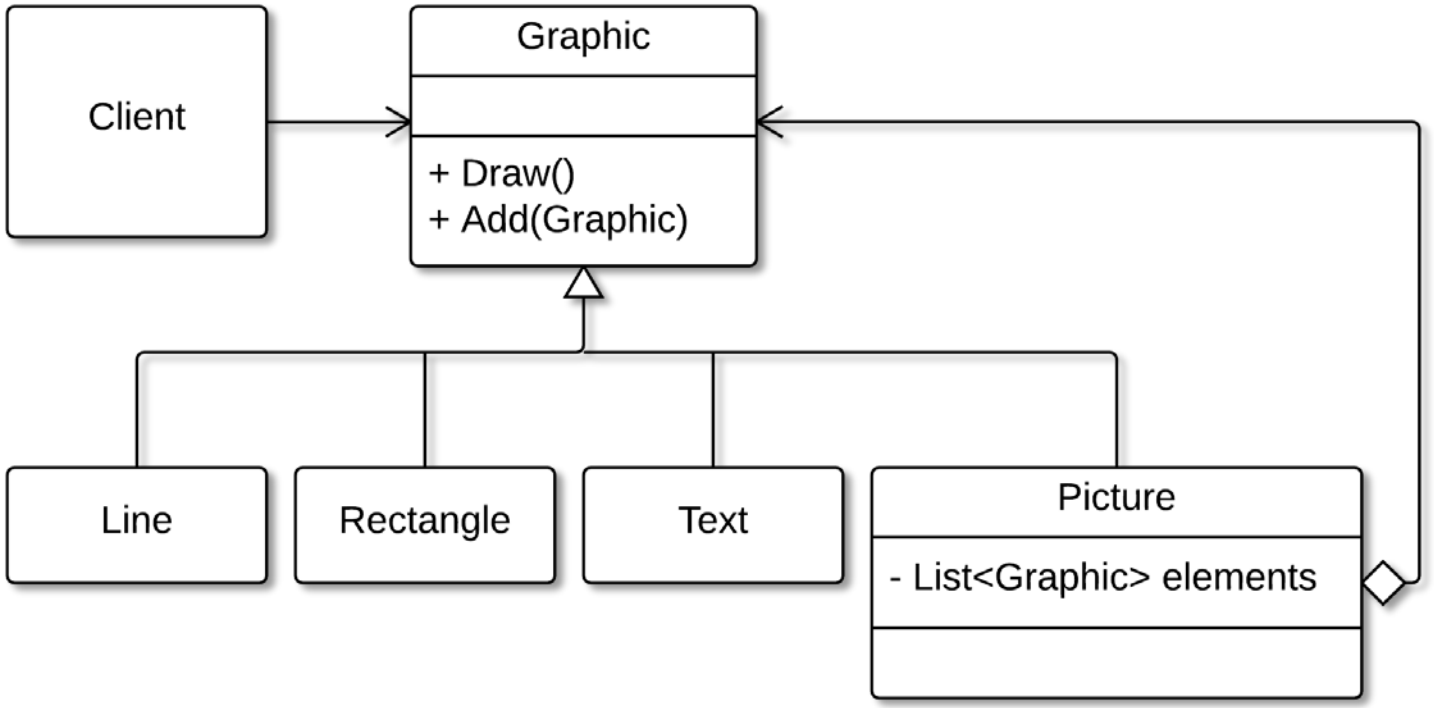
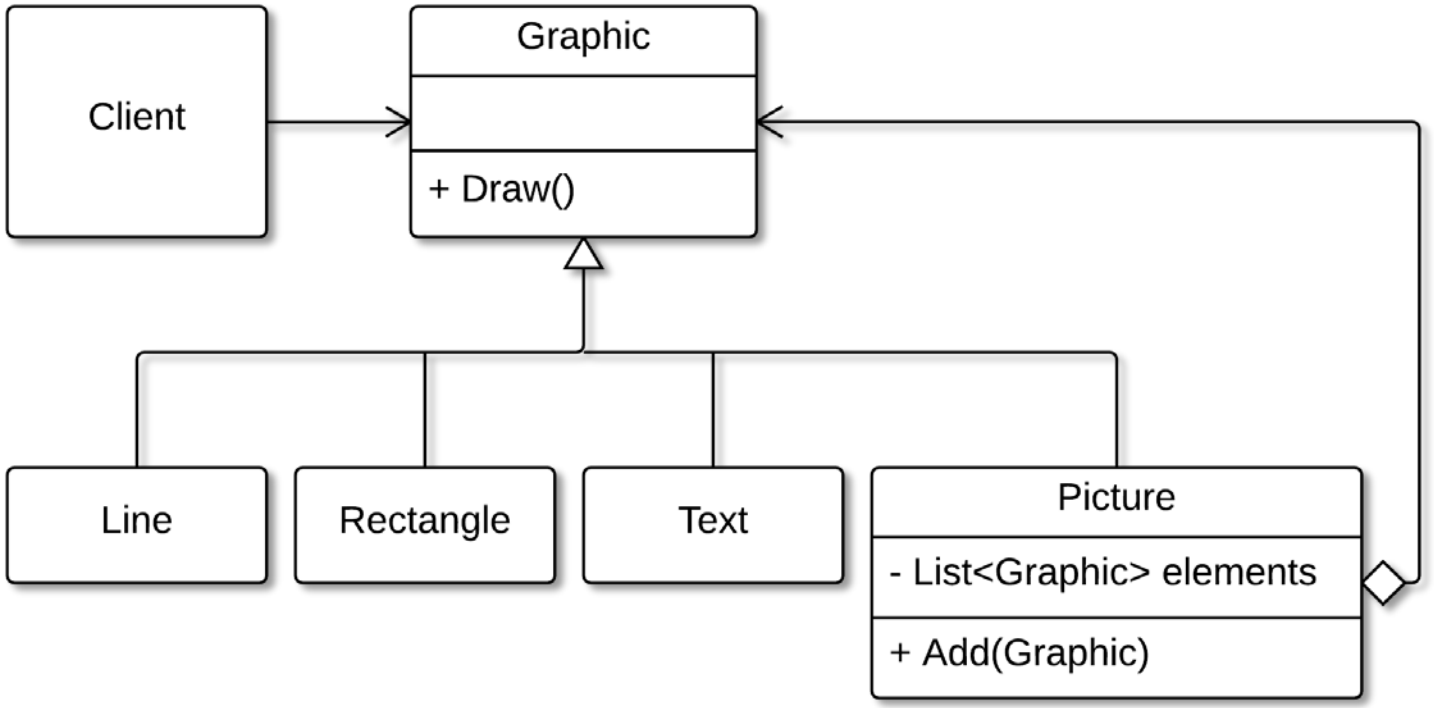


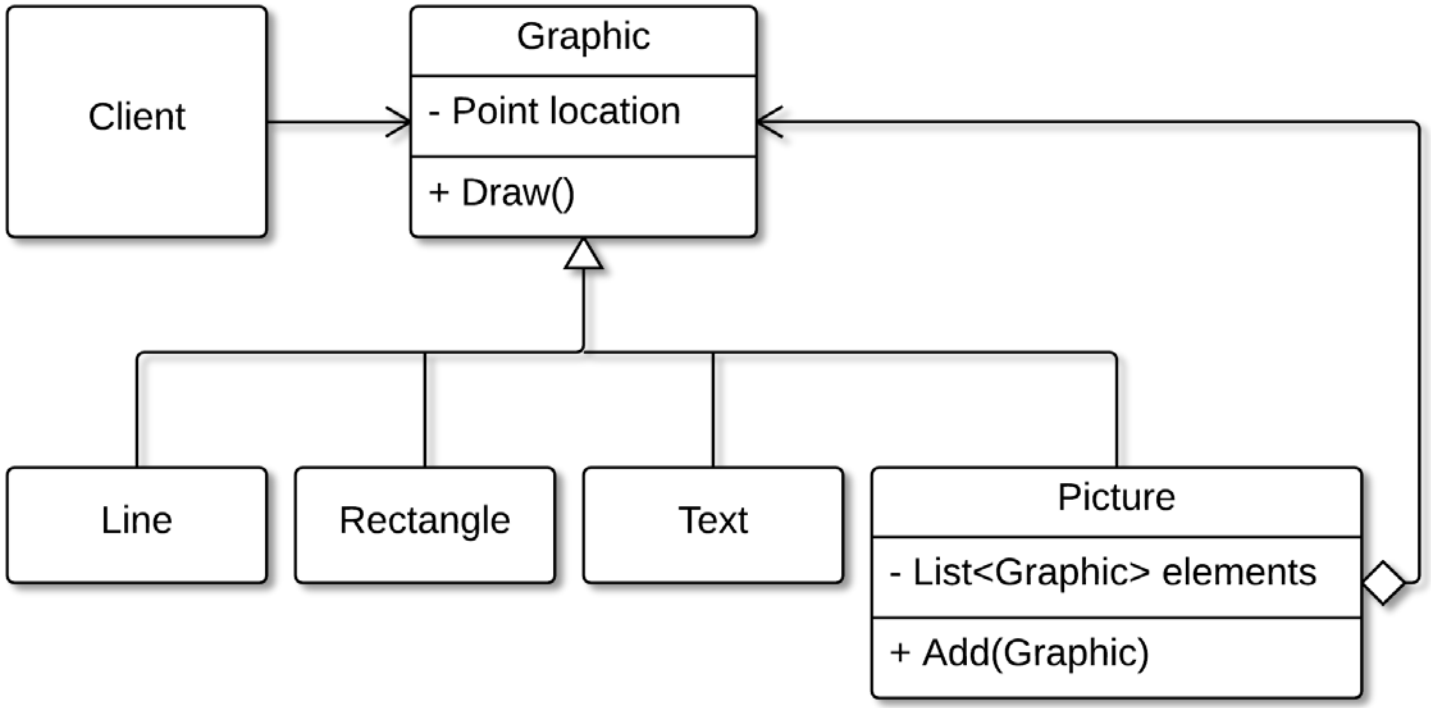


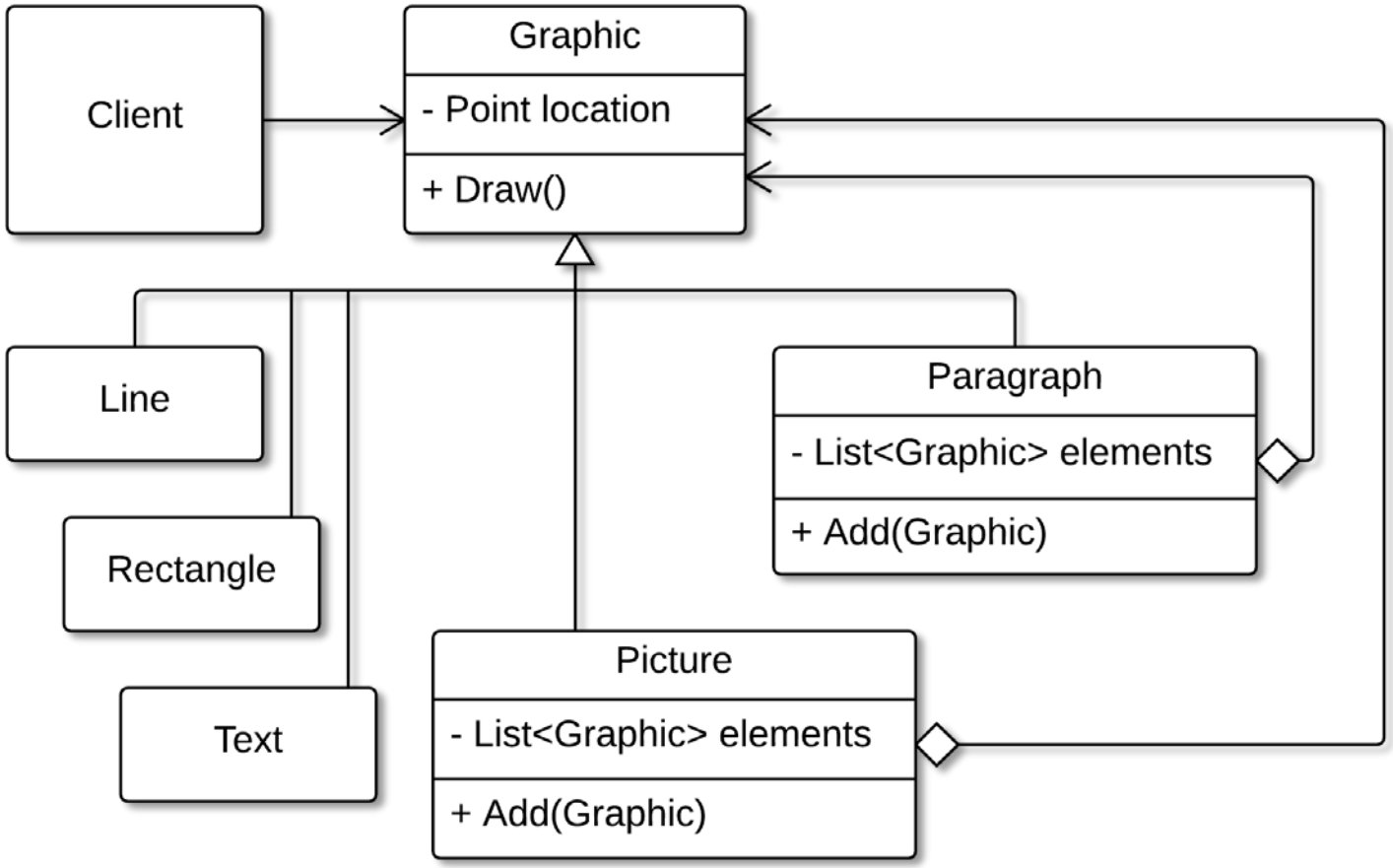


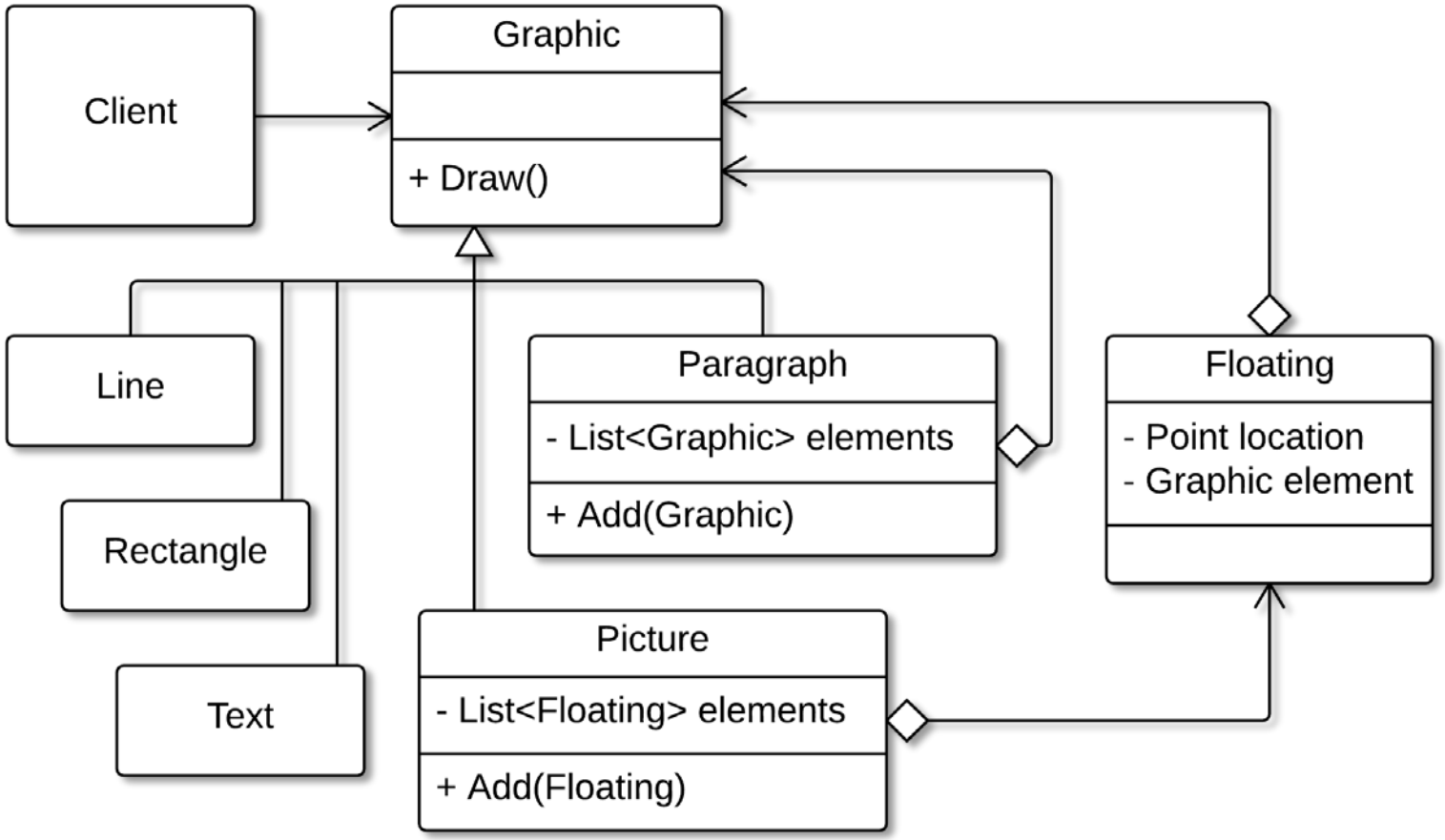


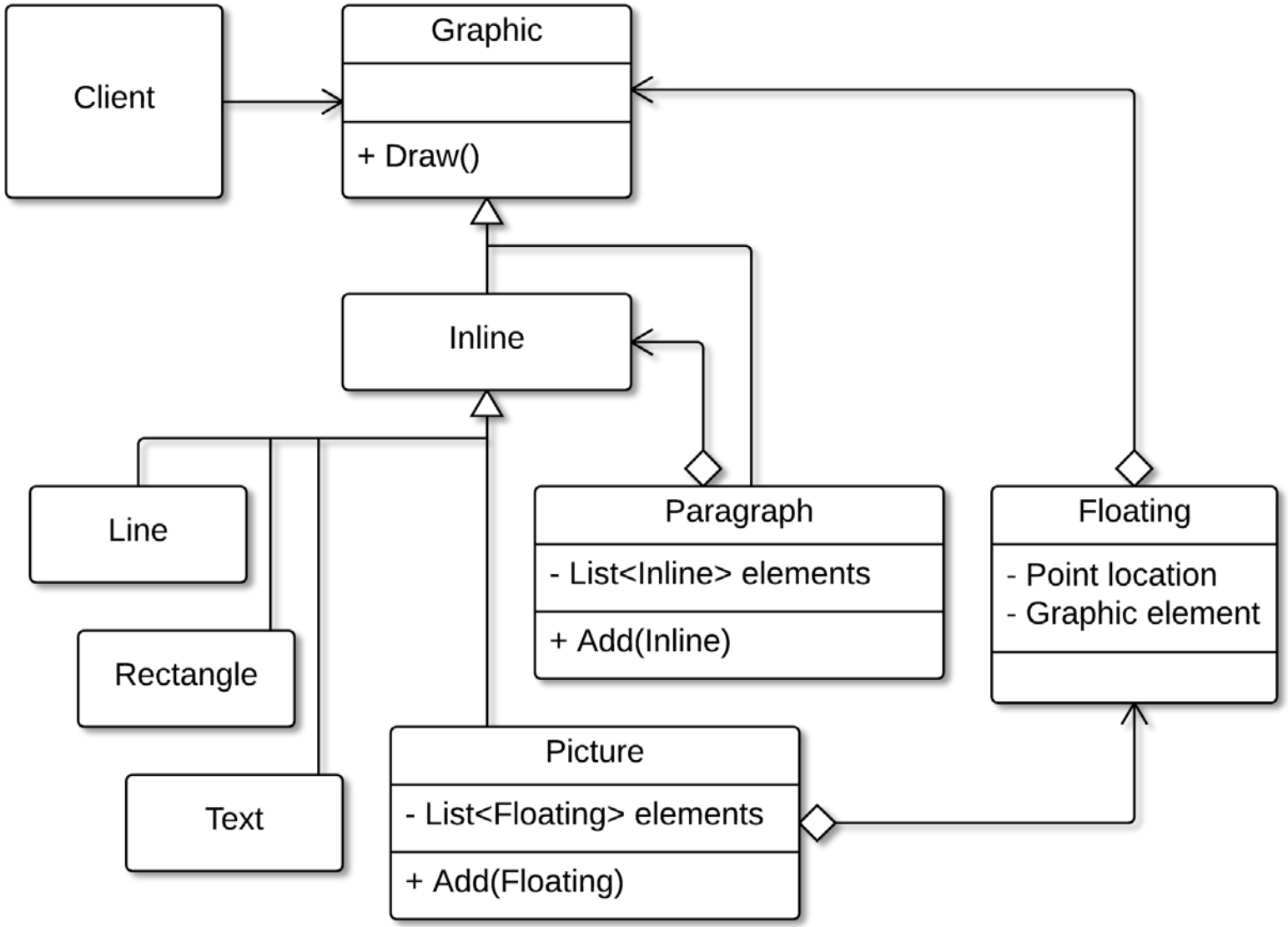


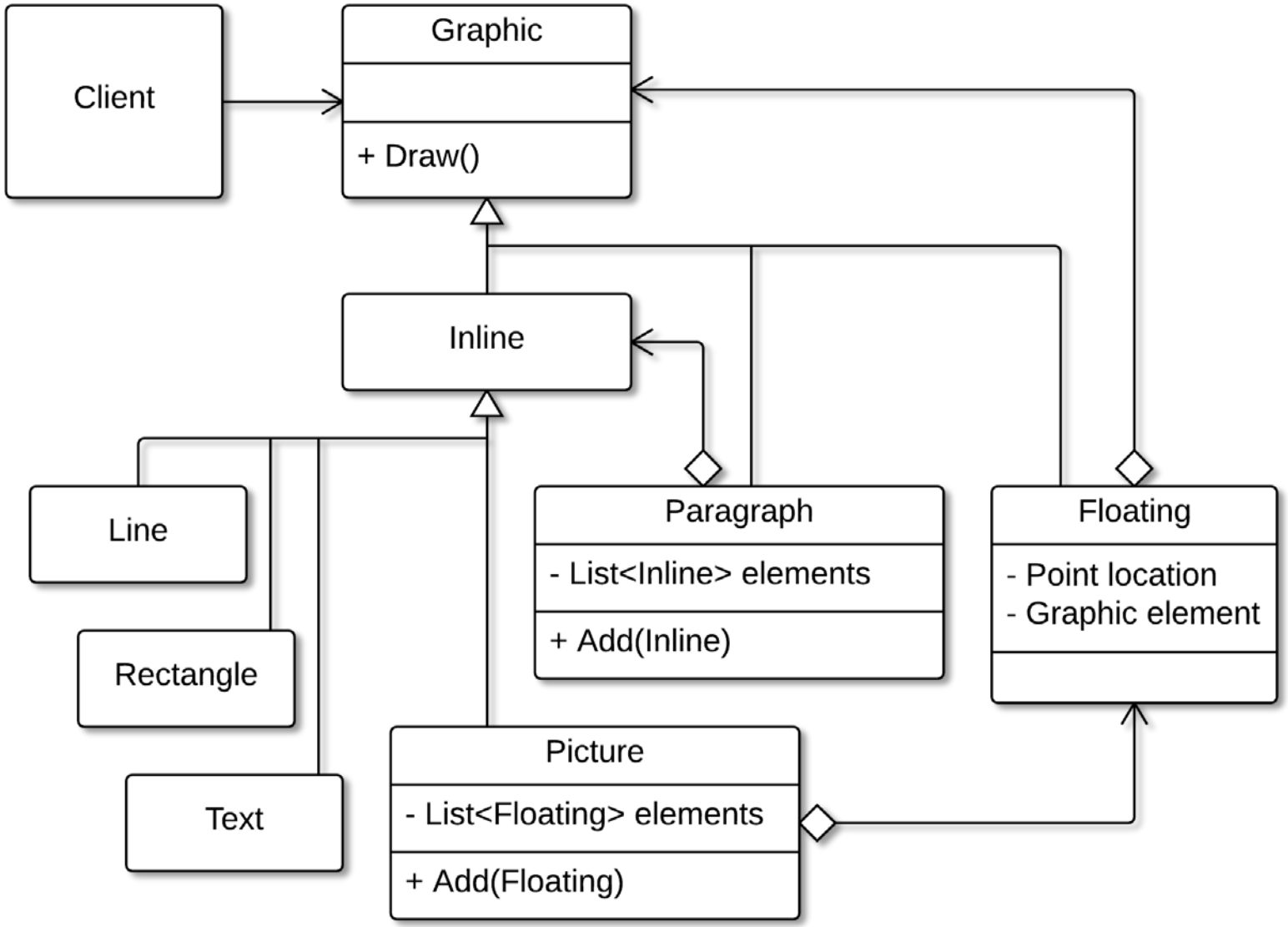


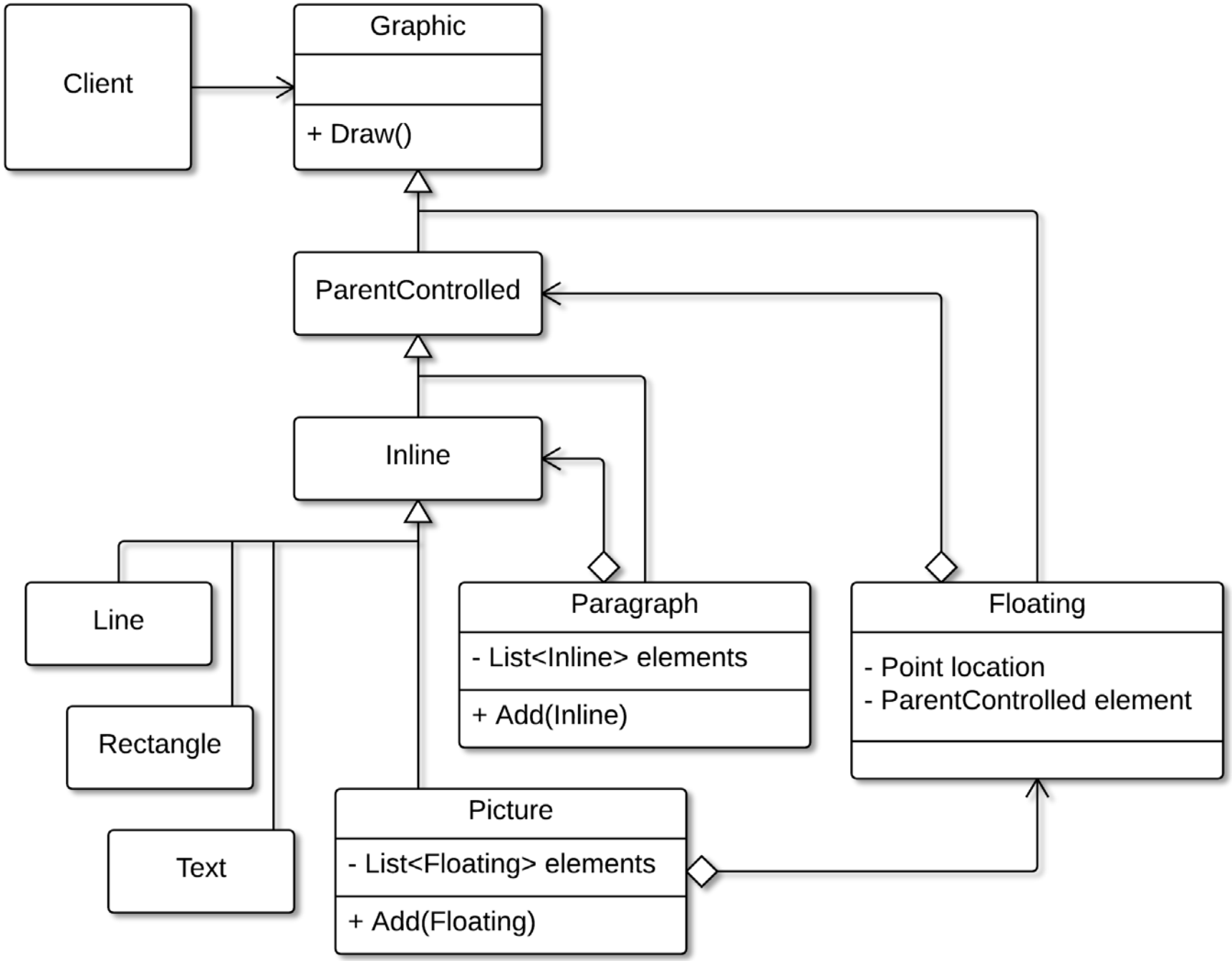


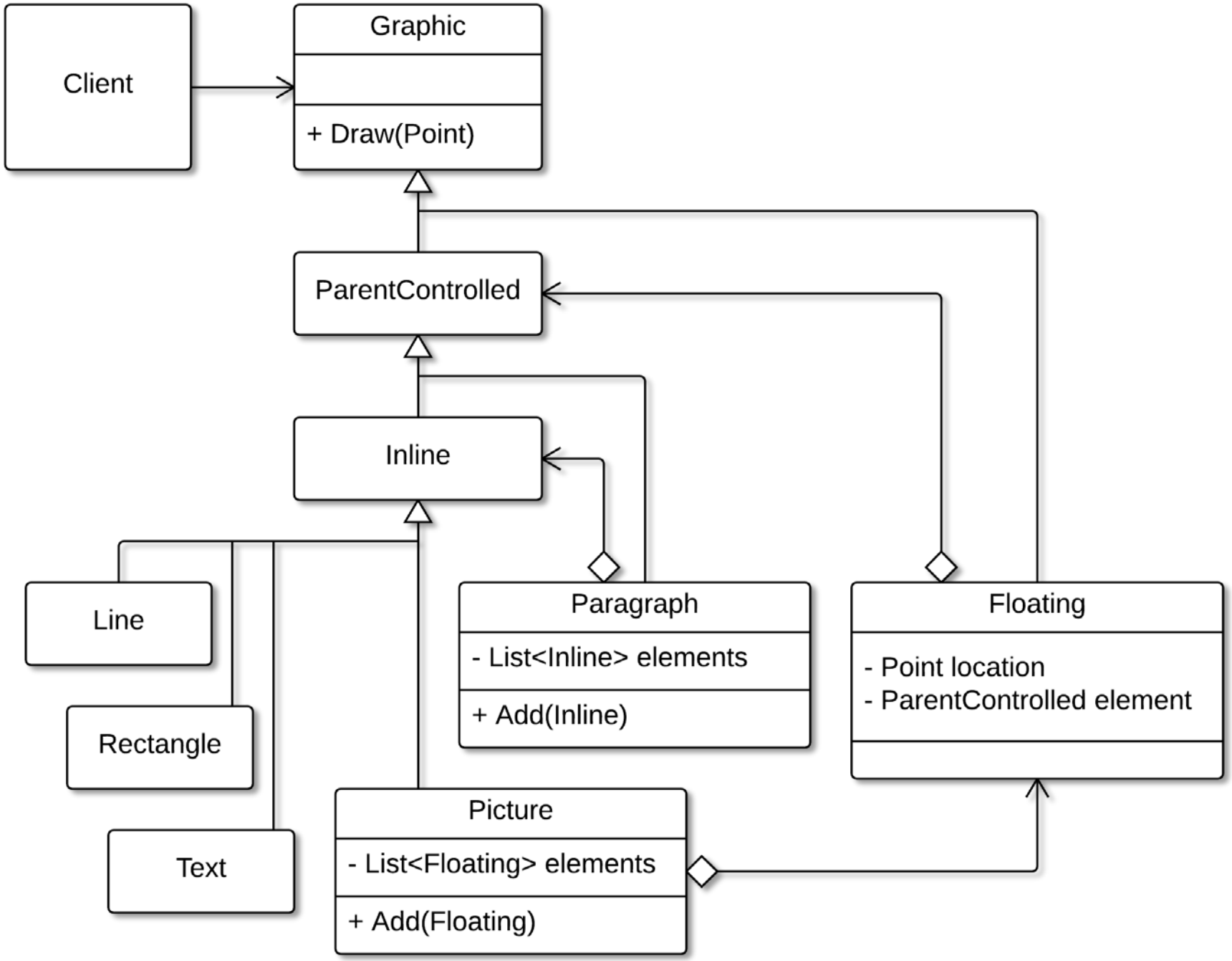


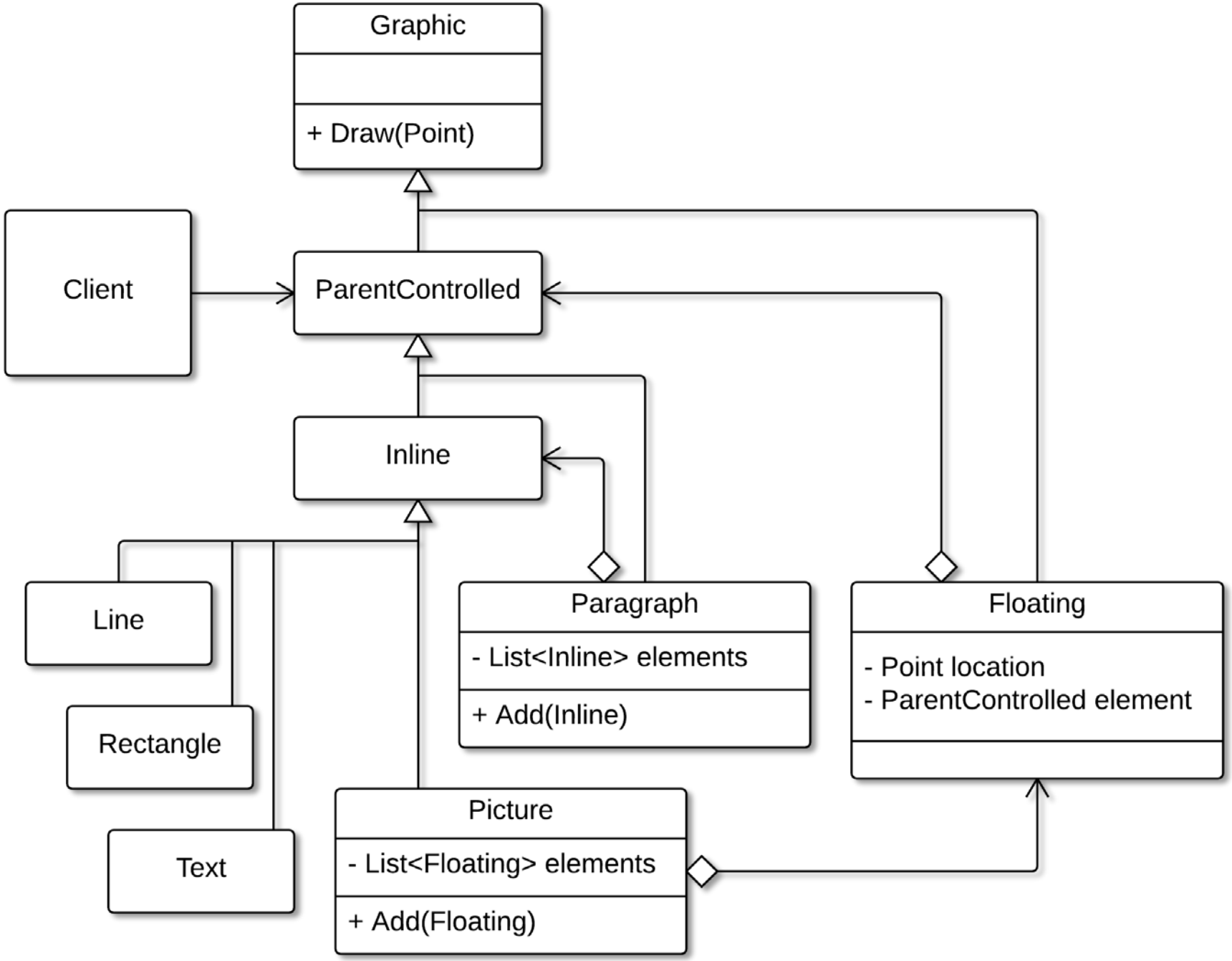


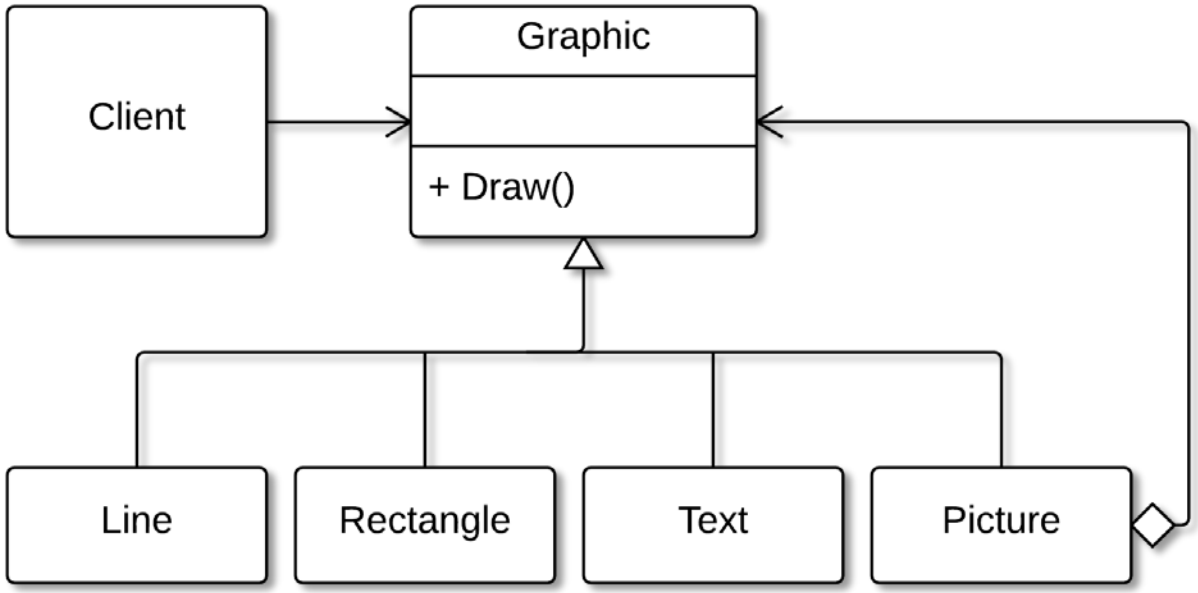


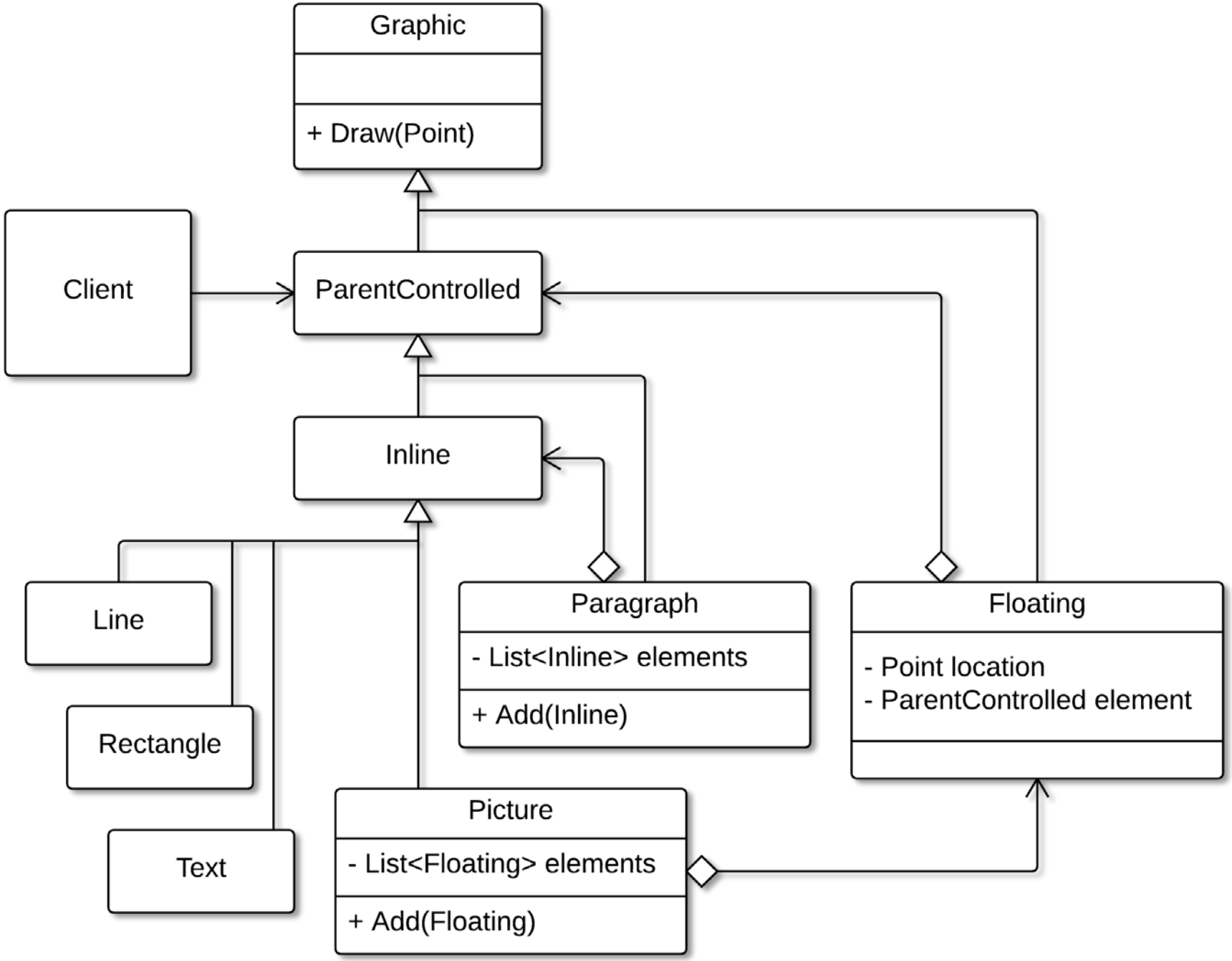




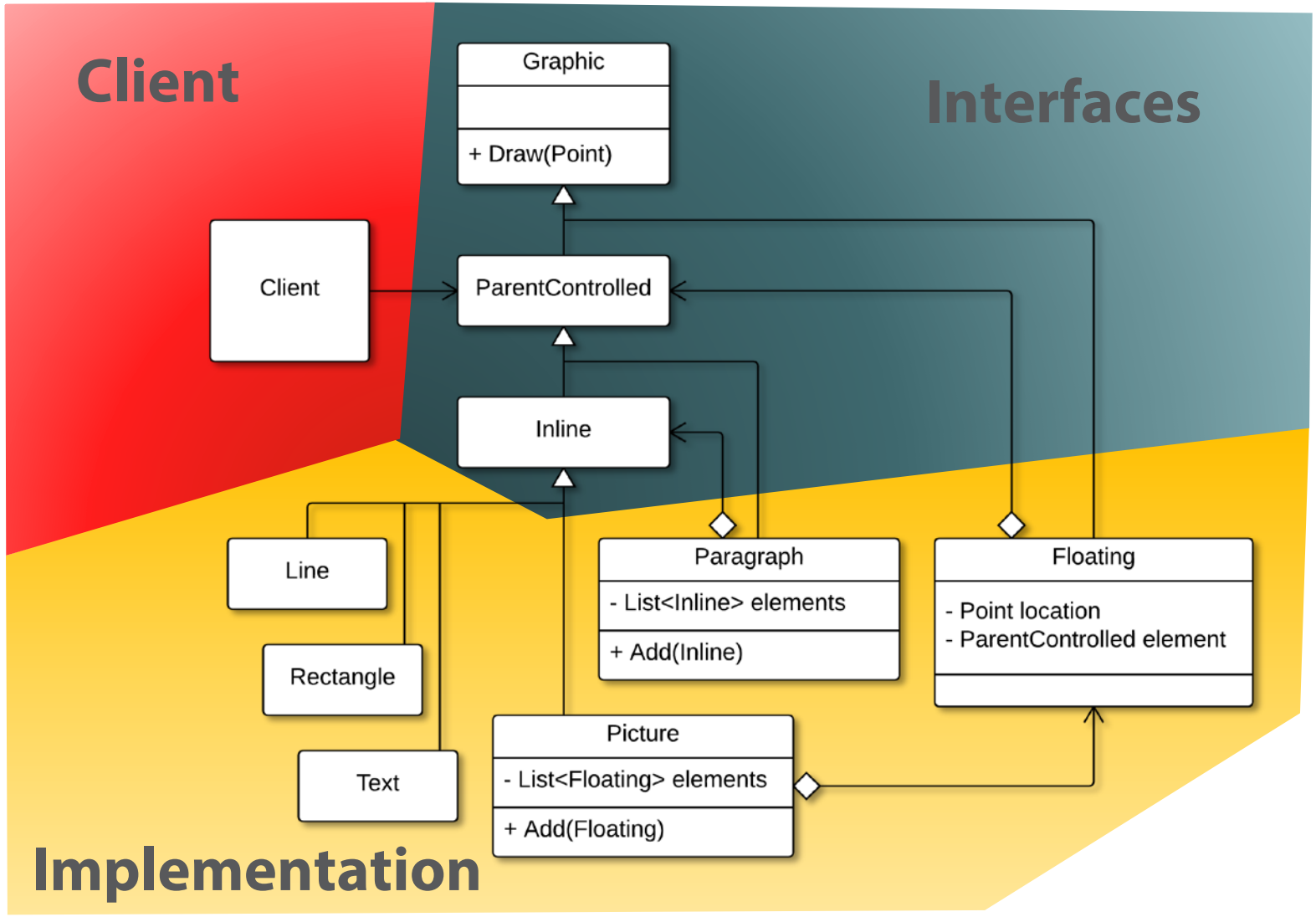








Abstraction vs. Implementation



Summary

- Example from the Gang of Four book
  - Class diagram provided as an example is over-simplified
  - Really applicable solution requires much larger number of classes
- Larger set of classes requires orchestration
  - It is the composite element that orchestrates execution
- Composite design pattern was not the goal of the exercise
  - The goal was to let the client control elements that are sometimes complex
  - Composite design pattern came to the rescue
  - Implementation was tailored to particular client's needs

Summary

- When was the best time to apply the Composite design pattern?
  - When we know what the client wants as the result
- Principal designs are not the same as those we implement
  - General solution needs to be adapted to particular project
  - Principal designs ignore real-world problems
- Real projects cannot ignore real-world problems
  - Application of a design pattern is often overly complicated
  - This may lead to new ideas that will simplify the design
    - A different, supporting design pattern may come to the rescue