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# VISITOR PATTERN

ALLOWS FOR ONE OR MORE OPERATION TO BE APPLIED TO A SET OF OBJECTS AT RUNTIME, DECOUPLING THE OPERATIONS FROM THE OBJECT STRUCTURE.

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### MOTIVATION

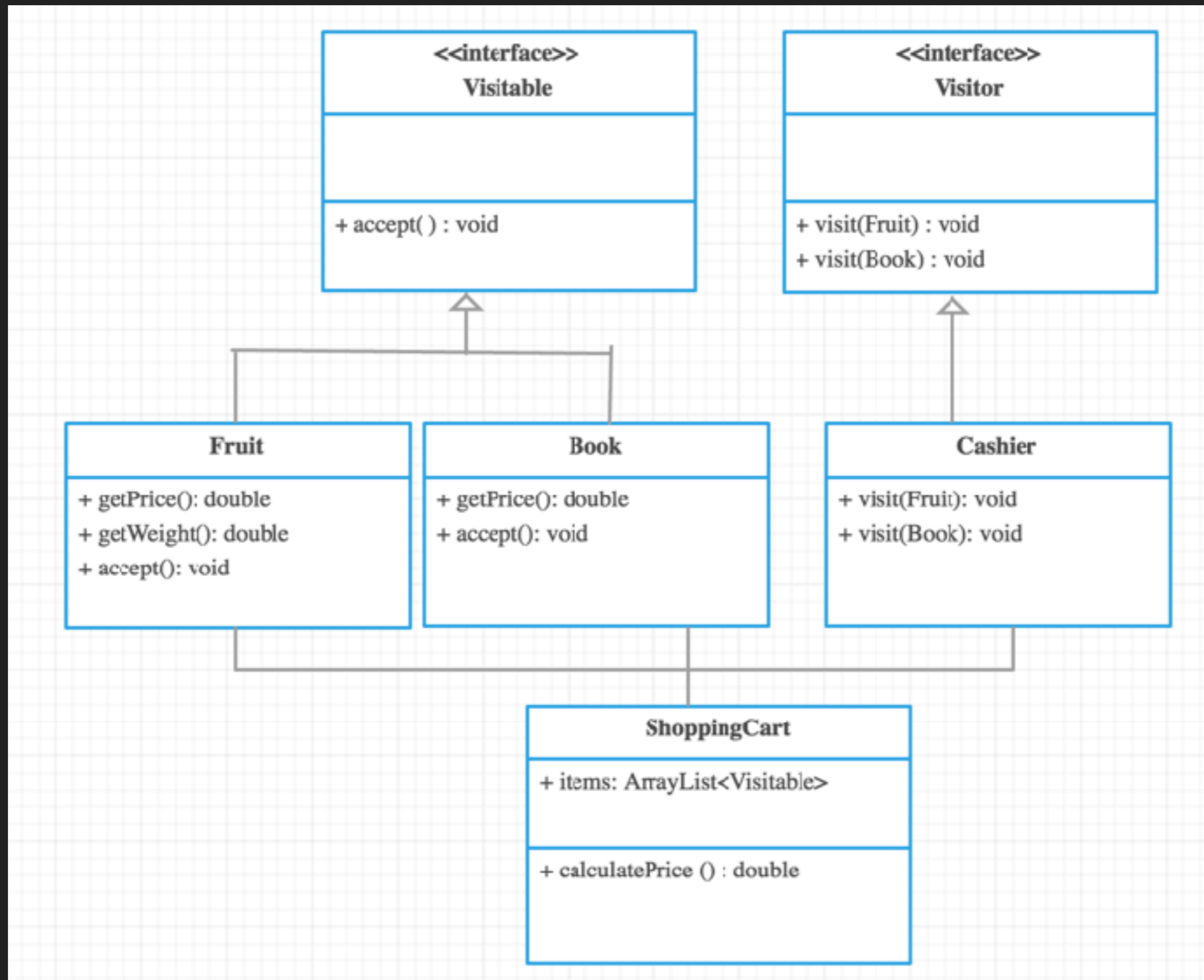
- ▶ Distinct operations to perform across a structure of objects
- ▶ Unrelated and often change
- ▶ Add different operations in code throughout your object structure every time

### BENEFITS

- ▶ Decouple the logical code (operations) from the elements
- ▶ Provide additional functionality to a class without changing it.
- ▶ Keep it separate and clean
- ▶ Easy to modify the operations, without affect the elements

# VISITOR PATTERN

## UML



## VISITOR PATTERN

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# IMPLEMENTATION

# CONCLUSION

- ▶ The arguments and return types for the visiting methods needs to be known in advance, so the Visitor pattern is not good for situations where these visited classes are subject to change.
- ▶ Every time a new type of Element is added, every Visitor derived class must be amended.
- ▶ The Visitor is powerful, but you should make sure to use it only when necessary!



**THANK  
YOU!**