

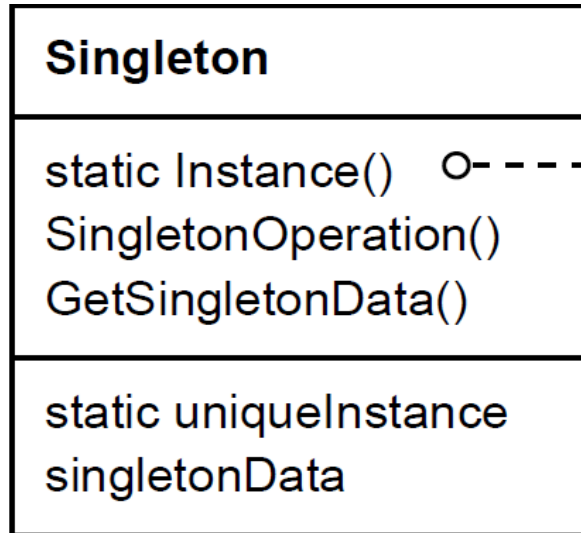
The Singleton Pattern

Structure & Functionality

Douglas C. Schmidt

Learning Objectives in This Lesson

- Recognize how the *Singleton* pattern can be applied to centralize access to global resources.
- Understand the structure & functionality of the *Singleton* pattern.



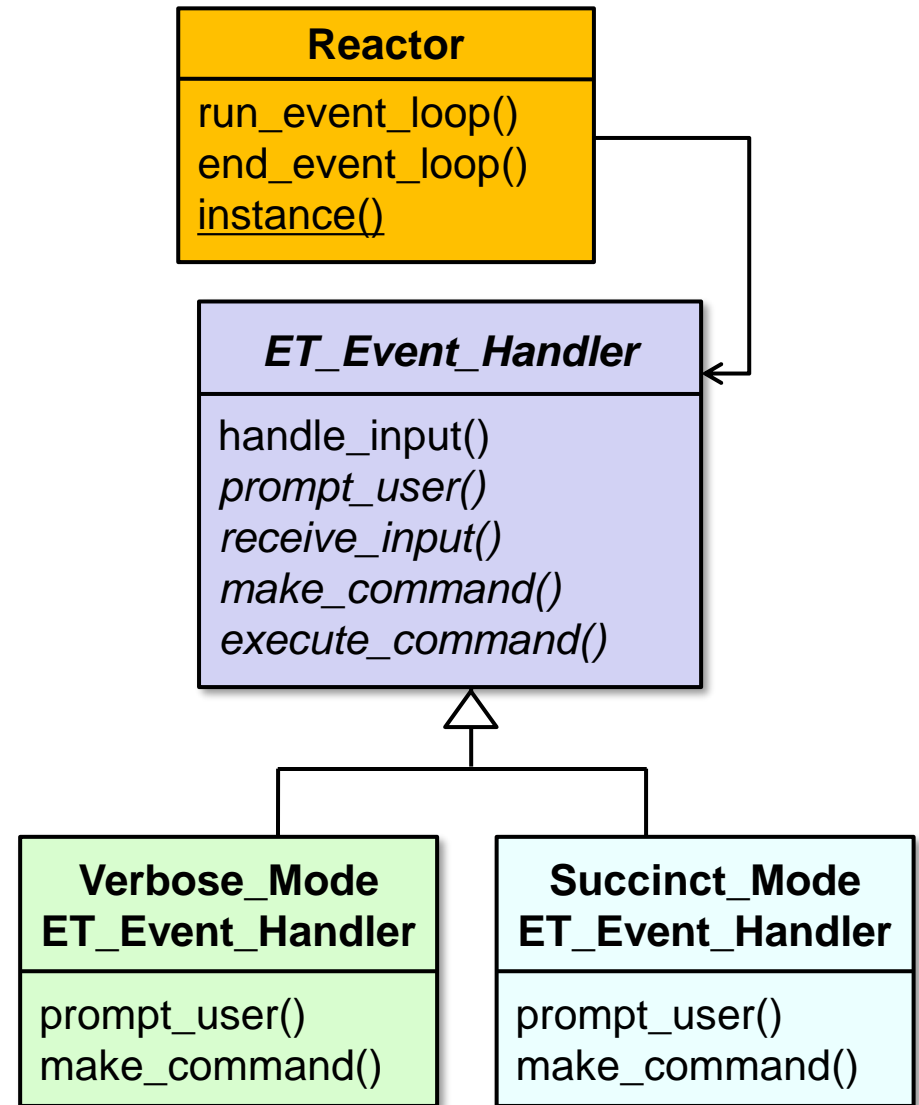
```
If (uniqueInstance == null)
    uniqueInstance = new Singleton();
return uniqueInstance;
```

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Structure & Functionality of the Singleton Pattern

Intent

- Ensure a class has only one instance & provide a global point of access

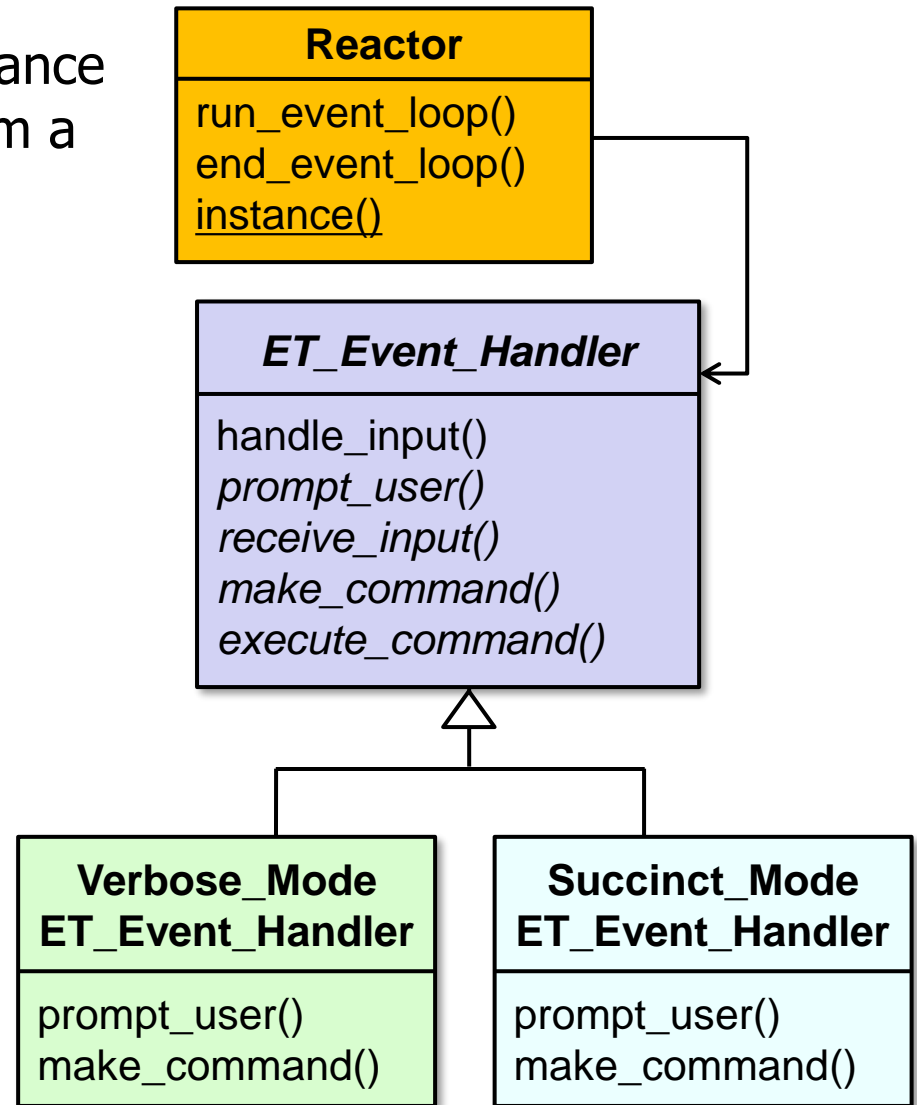


Singleton

GoF Object Creational

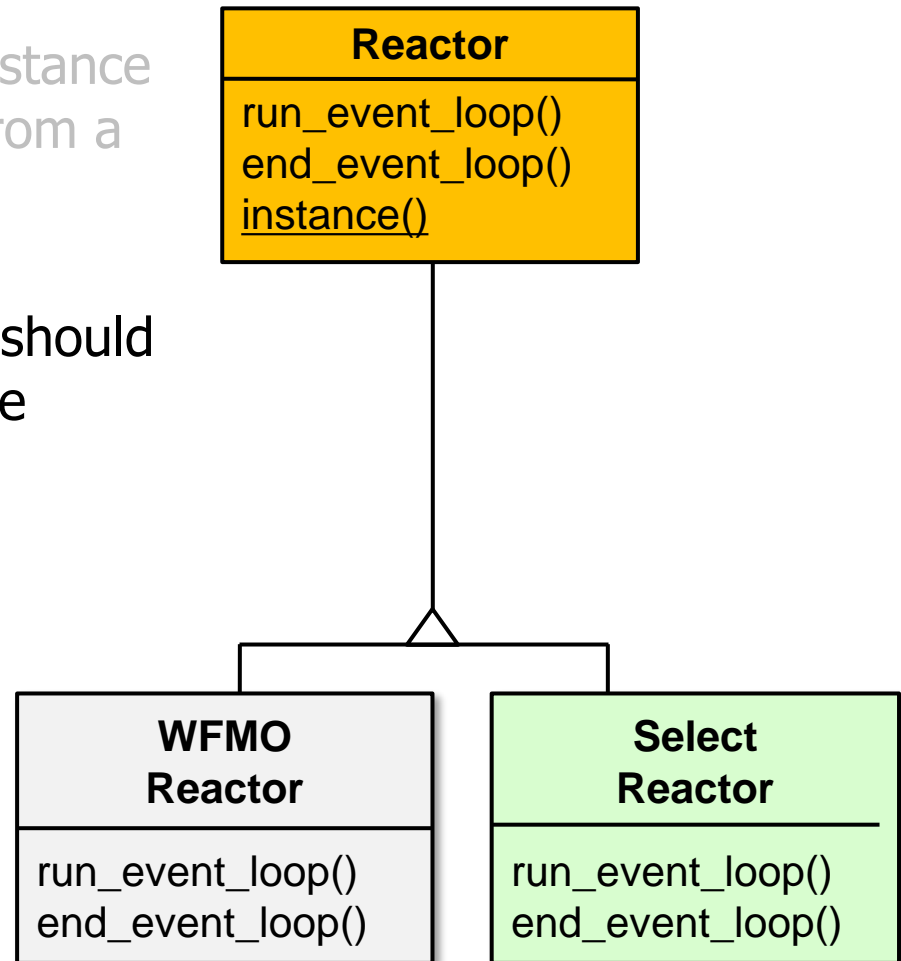
Applicability

- When there must be exactly one instance of a class & it must be accessible from a well-known access point

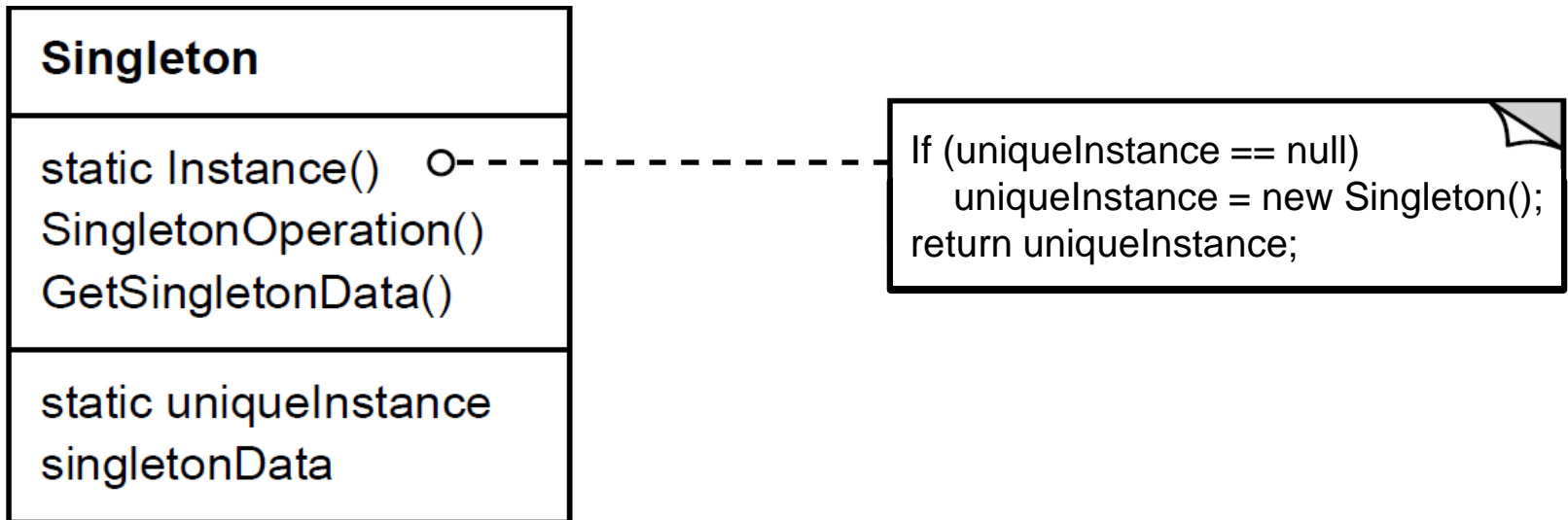


Applicability

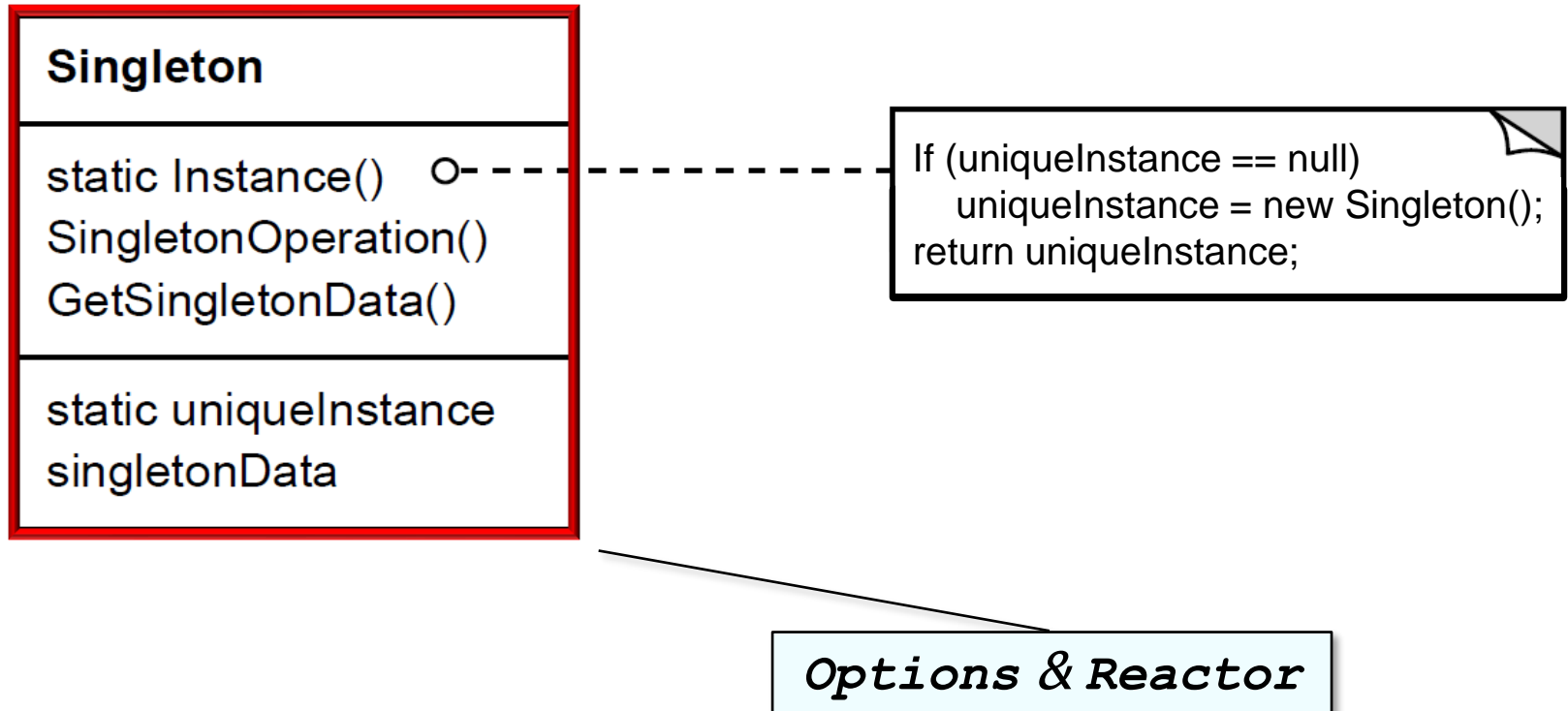
- When there must be exactly one instance of a class & it must be accessible from a well-known access point
- When the sole instance should be extensible by subclassing & clients should be able to use an extended instance without modifying any code



Structure & participants



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