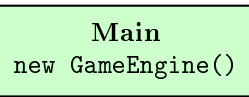


### X Problems:

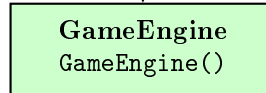
- Parameter passed through 4 levels
  - Every constructor polluted with **manager** parameter
- Refactoring nightmare: change affects **6+ files**
  - Team collaboration conflicts

Level 0

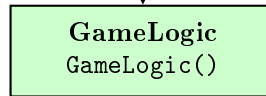


No  
Parameter  
Passing!

Level 1



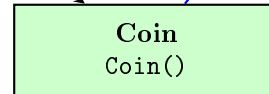
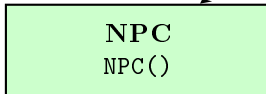
Level 2



getInstance()

GameManager  
getInstance()

Level 3



### OK Solutions:

- **Zero** constructor parameters!
- Direct access via `getInstance()`
- Easy refactoring: change only GameManager
  - Clean, maintainable code