

Adding transaction handling to Unit Tests

The why, the how and the journey



1992 - 2012

VisualWorks & GemStone

Feature branches

Deployment was mostly a manual process

No unit tests



2012 - 2019

Trunk based development

90 % Deployment automated

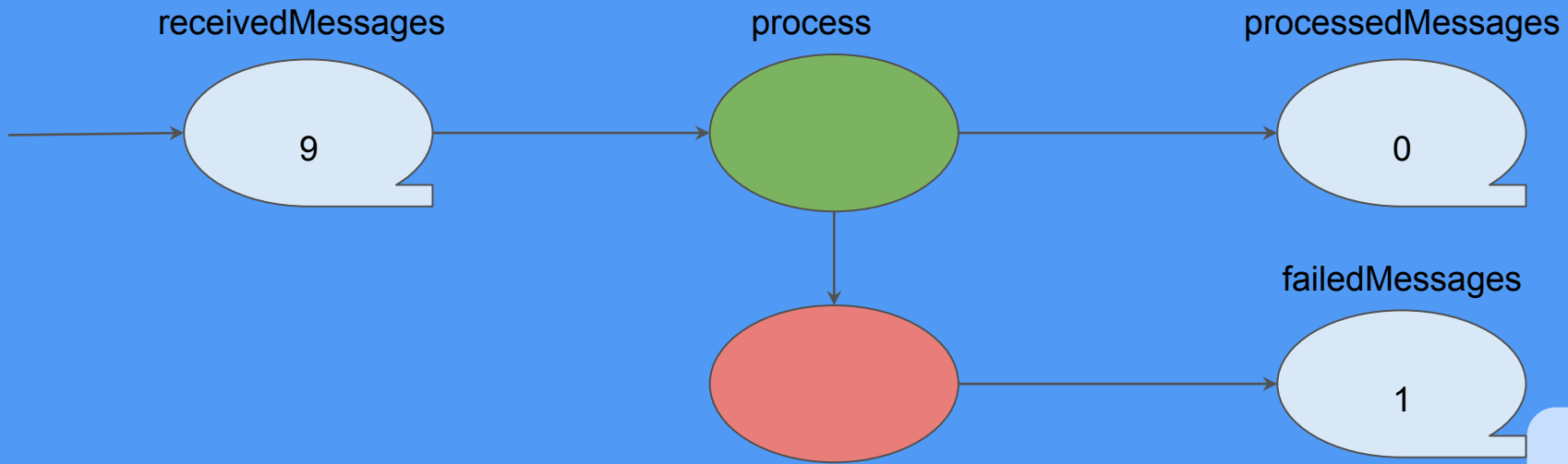
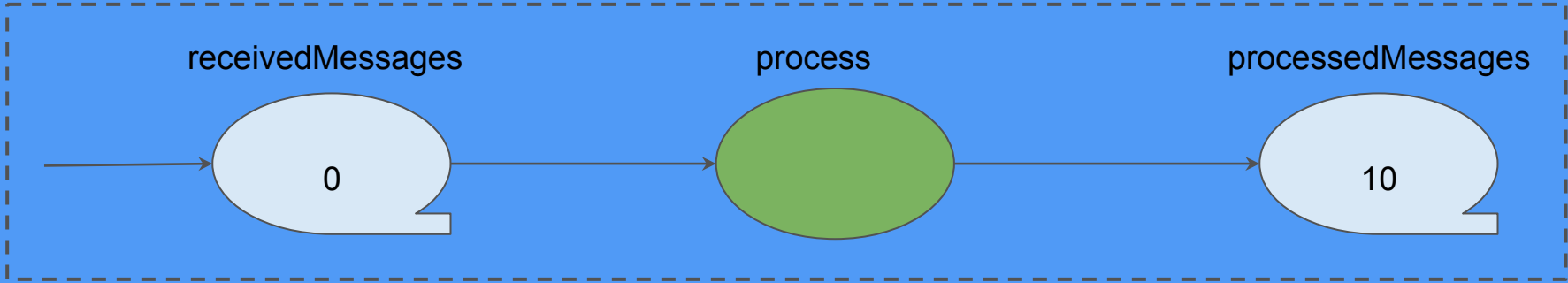
55000 methods

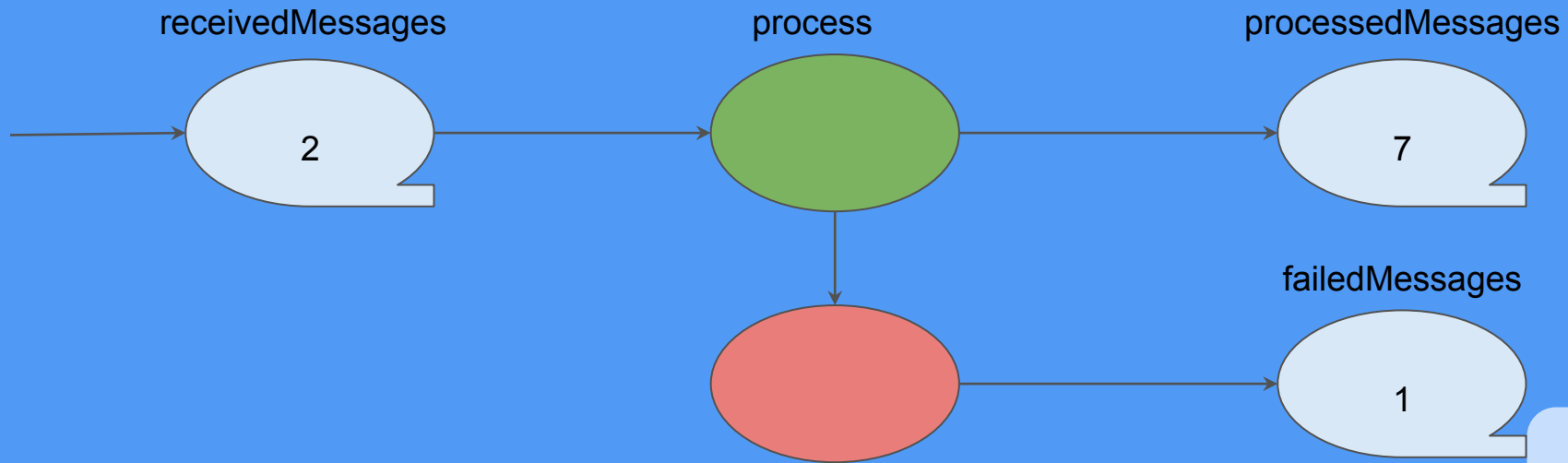
8000 unit tests

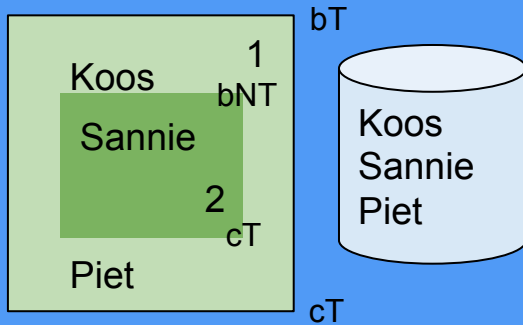


No transaction handling in
unit tests

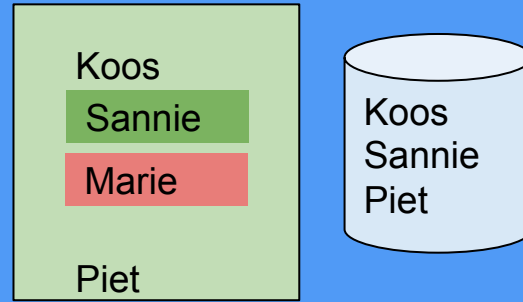




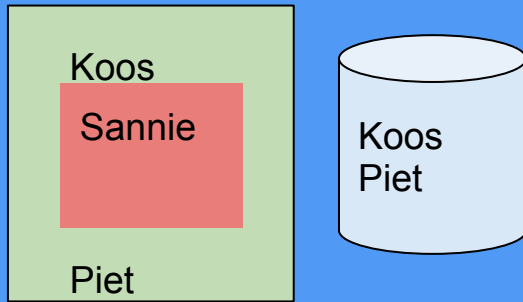




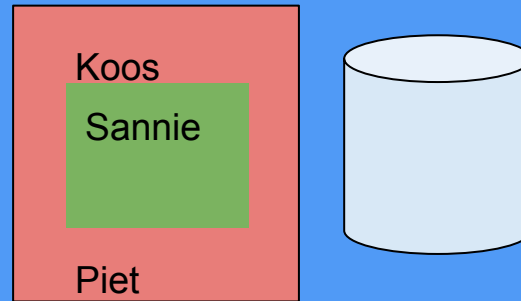
Commit both



Commit nested, Abort nested, Commit outer



Abort nested

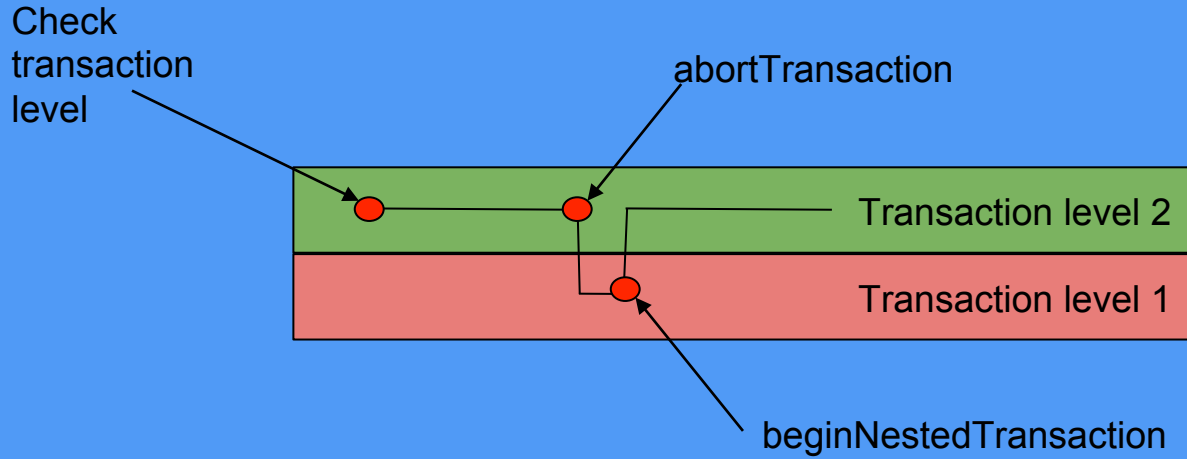


Commit nested, Abort outer (unit tests)

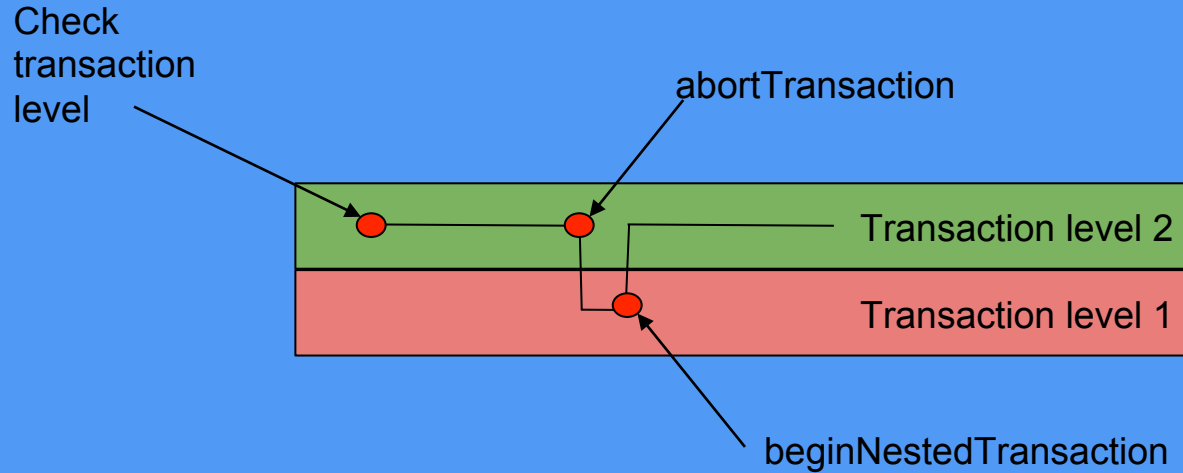
Auto mode



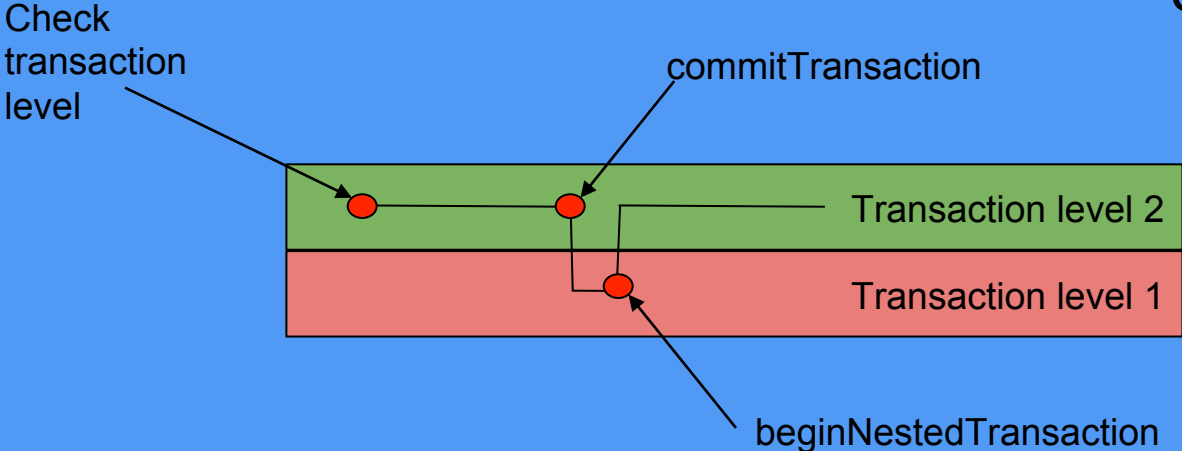
beginTransaction



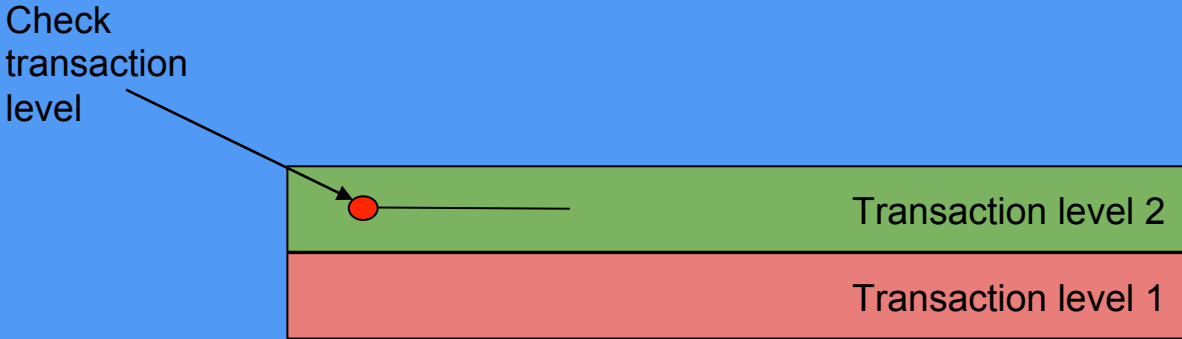
abortTransaction



commitTransaction



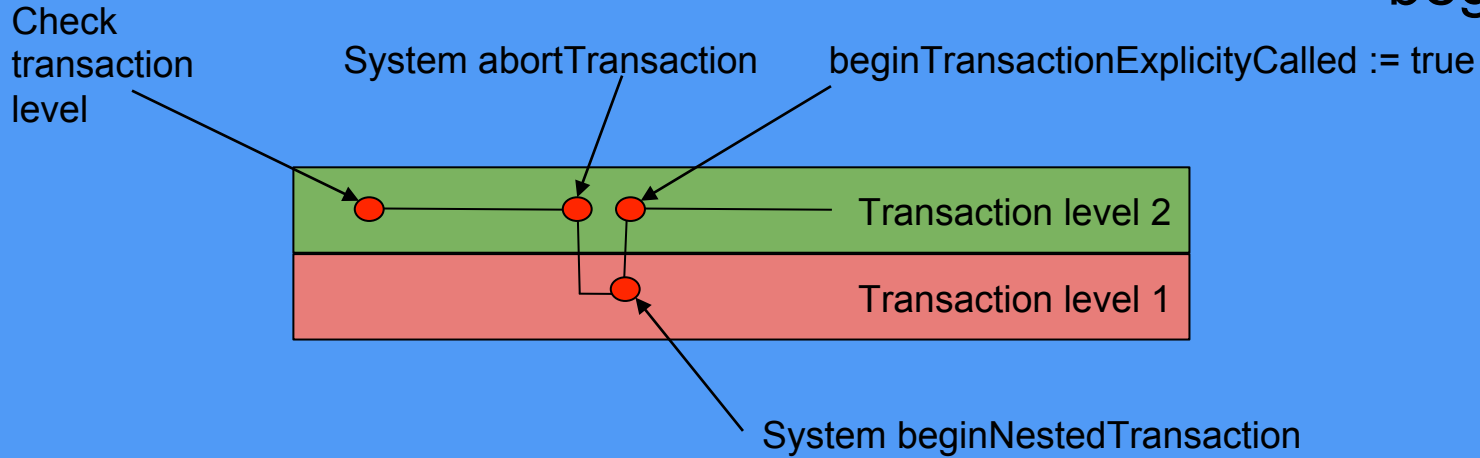
inTransaction



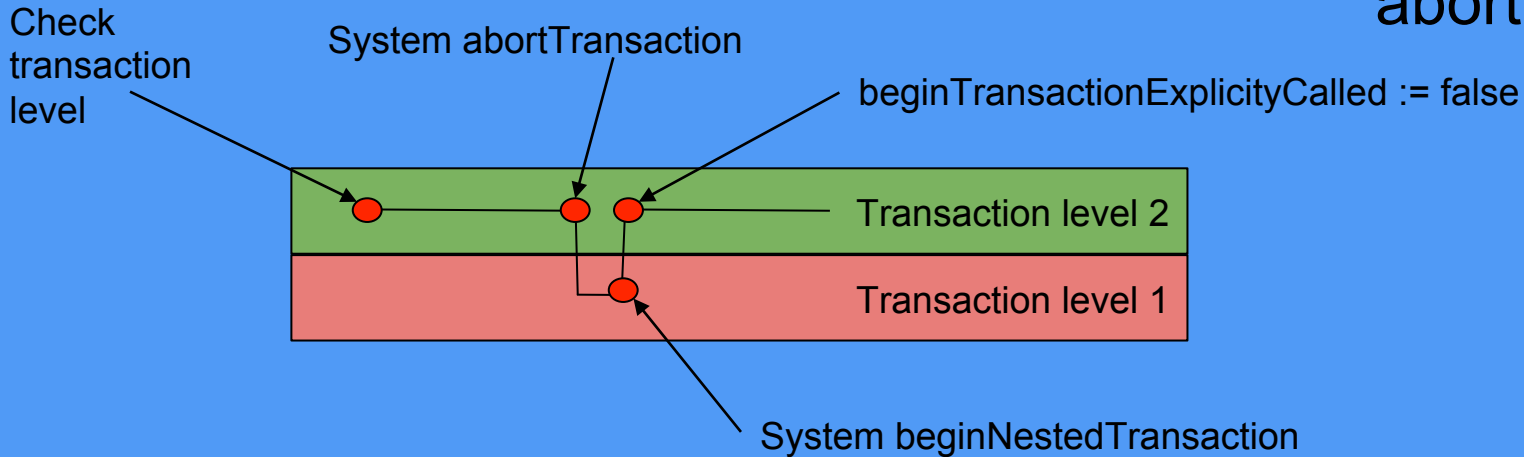
Manual mode



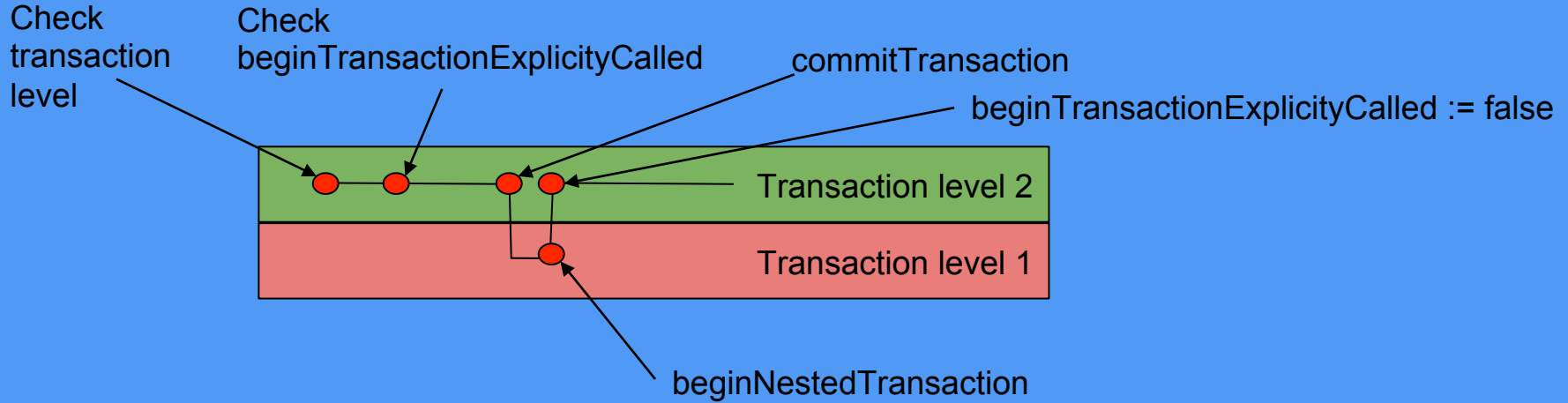
beginTransaction



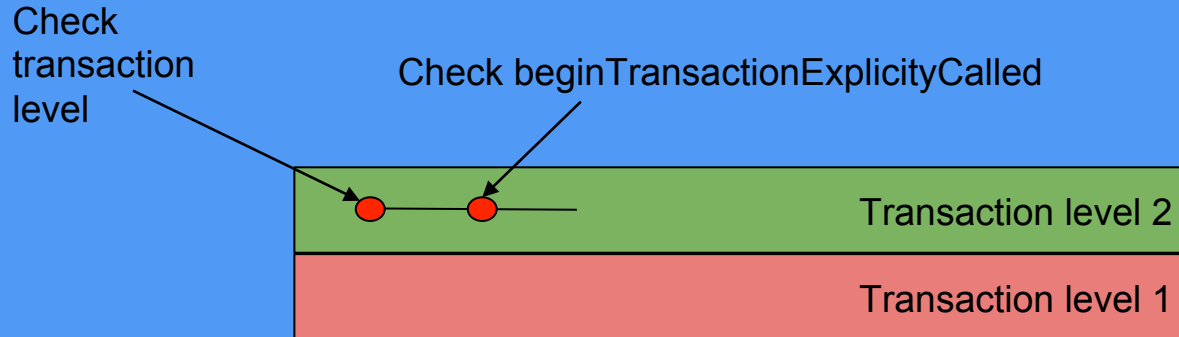
abortTransaction



commitTransaction

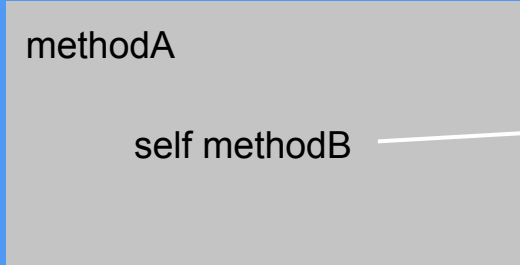
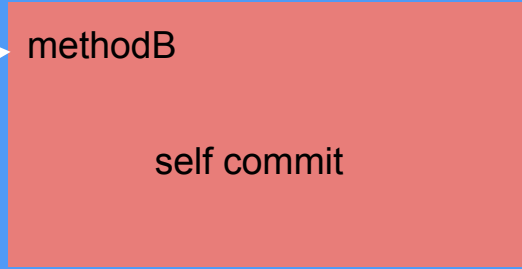
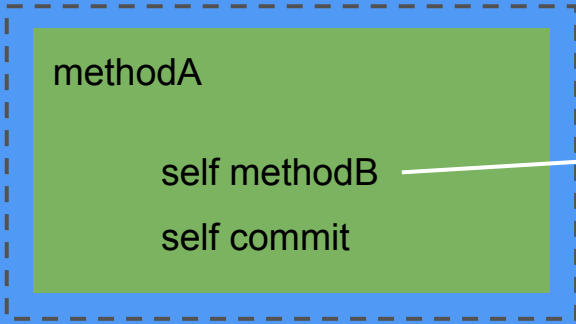


inTransaction



Commit fails





Using framework

Override defaultTransactionMode

Commit test setup (especially when in manual mode)

Limitations

Canonical framework

Can't use nested transactions in our production code