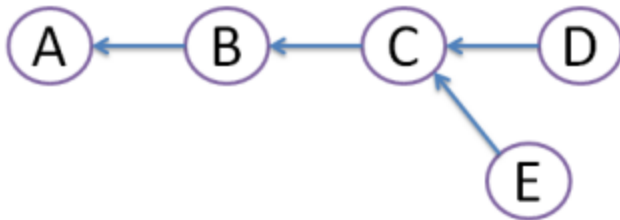# *The difference between 'git merge' and 'git rebase'*

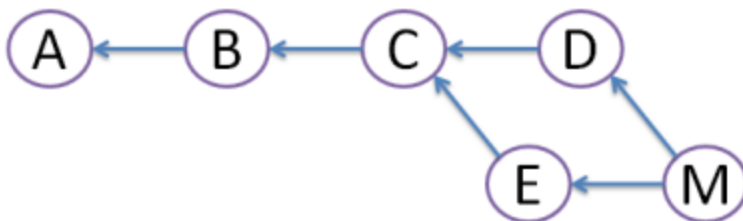Suppose originally there were 3 commits, A,B,C:

Then developer Dan created commit D, and developer Ed created commit E:
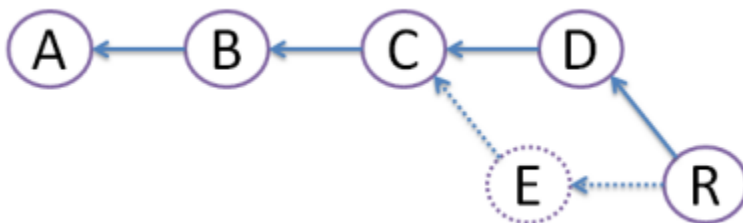

Obviously, this conflict should be resolved somehow. For this, there are 2 ways:

MERGE:

Both commits D and E are still here, but we create merge commit M that inherits changes from both D and E. However, this creates *diamond* shape, which many people find very confusing.
REBASE:

We create commit R, which actual file content is identical to that of merge commit M above. But, we get rid of commit E, like it never existed (denoted by dots - vanishing line). Because of this obliteration, E should be local to developer Ed and should have never been pushed to any other repository. Advantage of rebase is that *diamond* shape is avoided, and history stays nice straight line.