

Test Driven Development

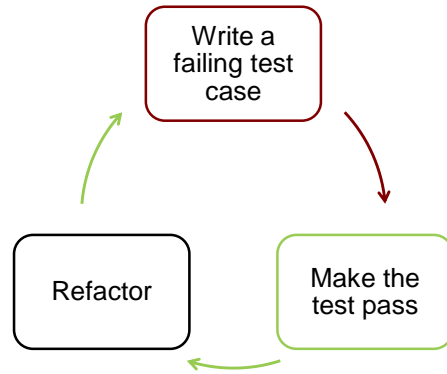


Test Driven Development (TDD)

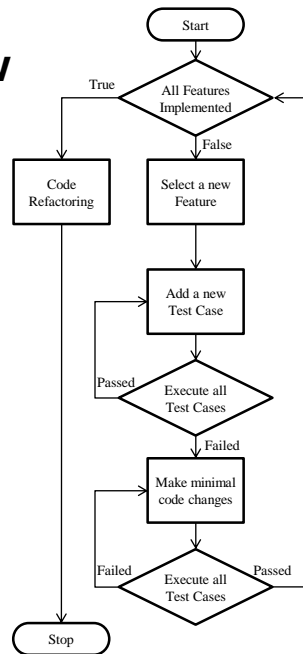
- Software development practice
- Developers construct automated unit tests
- It's more about design than testing
- Code is naturally designed for testability



"Red-Green-Refactor" flow



Detailed Flow





Pre-requirements for TDD

- Test case in TDD has to be:
 - written in the form of an executable script
 - using the same programming language as the code (in most cases)
 - and have a build in "oracle" – decision if test is failing or passing
- In other words, tests have to be automated
- This is achieved by using appropriate xUnit testing framework (cUnit, CppUnit, eUnit, junit, PyUnit, etc..)



Why automation in TDD?

- Manual testing takes too long
- Manual processes are error prone
- Automation frees people to do their best work
- Automated regression tests provide a safety net
- Automated tests give feedback early and often
- Tests and examples that drive coding can do more
- Tests provide documentation
- Automation can be a good return on investment



Test Automation Pyramid

