

Presentation of JUnit

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JUnit

- General information About JUnit
- Why Testing while Programming?
- Writing and Running Testing Code Using JUnit
- What to Add?

General Info For JUnit

- An open Source Software, released under the Common Public License and hosted on SourceForge
- A regression testing framework originally written by Erich Gamma and Kent Beck
- Programming Language: Java
- Intended audience: developers who implement unit tests in Java
- Best Java Performance Monitoring/Testing Tool Award in JavaWorld Editors' Choice Awards

Why Testing while Programming?

- Regression testing:
 - combines unit tests to verify that software components work together correctly
 - helps in understanding of how classes may interact with each other
- Unit testing:
 - ensures that individual software components produce expected results
 - helps in understanding of how the individual pieces work and perform, before the final assembly process begins
- Leads to higher-quality code, higher productivity, and lower maintenance and evolution costs

Writing and Running Testing Code Using JUnit

- JUnit features include:
 - Assertions for testing expected results
 - Test fixtures for sharing common test data
 - Test suites for easily organizing and running tests
 - Graphical and textual test runners

What to Add?

- Assertions: the basic function for testing code
- Inappropriate testing: may create misleading data
- Programmer: needs an idea about the quality of his testing
- Adding feature: presentation of the number of asserts executed per test