

Automated Java Testing: JUnit versus AspectJ

Authors : Manish Jain, Dinesh Gopalani

Abstract : Growing dependency of mankind on software technology increases the need for thorough testing of the software applications and automated testing techniques that support testing activities. We have outlined our testing strategy for performing various types of automated testing of Java applications using AspectJ which has become the de-facto standard for Aspect Oriented Programming (AOP). Likewise JUnit, a unit testing framework is the most popular Java testing tool. In this paper, we have evaluated our proposed AOP approach for automated testing and JUnit on various parameters. First we have provided the similarity between the two approaches and then we have done a detailed comparison of the two testing techniques on factors like lines of testing code, learning curve, testing of private members etc. We established that our AOP testing approach using AspectJ has got several advantages and is thus particularly more effective than JUnit.

Keywords : aspect oriented programming, AspectJ, aspects, JUnit, software testing

Conference Title : ICSSAT 2017 : International Conference on Software System Analysis Tools

Conference Location : Bangkok, Thailand

Conference Dates : November 29-30, 2017