Abstract

We propose an integrated approach to generate test cases from UML sequence and activity diagrams. We first transform these UML diagrams into a graph. Then, we propose an algorithm to generate test scenarios from the constructed graph. Next, the necessary information for test case generation, such as method-activity sequence, associated objects, and constraint conditions are extracted from test scenario. Our approach reduces the number of test cases and still achieves adequate test coverage. We achieve message-activity path coverage and category partitioning method for each predicate conditions found in the specific path of the design model.

Reference

Index Terms

Computer Science  Software Testing

Key words

Software Testing  UML
Models
Sequence diagram
Activity diagram
Model Flow Graph
Test Sequence