Abstract

Software testing mainly consists of three types of approaches i.e. specification based testing, model based testing and coding based testing. In specification based testing, major concern is to find the missing logic defects that cannot be find by using other types of testing. Specification testing mainly uncovers the specification problems in Software Requirement Specification (SRS). An approach for the generation of functional test cases from SRS has been presented in this paper. This approach will help to achieve the early detection of faults and will reduce the time, cost and effort of the developer. Proposed model will automatically generate the functional requirements from the SRS. Template for Use Case diagram will be automatically generated from the functional requirements. Activity diagram will be used to generate the Activity Dependent Table (ADT) and hence Activity Dependent Graph (ADG) will be generated from ADT. Functional test paths will be generated by applying the Depth First Search Algorithm (DFS) as a searching algorithm. Finally we will generate the test cases from the functional test paths.
Automated Generation of Functional Test Cases and Use Case Diagram using SRS Analysis

References


Index Terms

Computer Science Software Engineering

Keywords

SRS, Use Case Diagram, Activity Diagram,DFS