Automatic API Regression Analyzer and Executor

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Abstract : As the software product changes versions across releases, there are changes to the API's and features and the upgrades become necessary. Hence, it becomes imperative to get the impact of upgrading the dependent components. This tool finds out API changes across two versions and their impact on other API's followed by execution of the automated regression suites relevant to updates and their impacted areas. This tool has 4 layer architecture, each layer with its own unique pre-assigned capability which it does and sends the required information to next layer. This are the 4 layers. 1) Comparator: Compares the two versions of API. 2) Analyzer: Analyses the API doc and gives the modified class and its dependencies along with implemented interface details. 3) Impact Filter: Find the impact of the modified class on the other API methods. 4) Auto Executer: Based on the output given by Impact Filter, Executor will run the API regression Suite. Tool reads the java doc and extracts the required information of classes, interfaces and enumerations. The extracted information is saved into a data structure which shows the class details and its dependencies along with interfaces and enumerations that are listed in the java doc.

Keywords : automation impact regression, java doc, executor, analyzer, layers

Conference Title : ICTSS 2015 : International Conference on Testing Software and Systems

Conference Location : New York, United States

Conference Dates : June 04-05, 2015