How to evaluate test suites

Maintaining tests should be considered an ongoing expense for a development team just like maintaining a software or monthly fee to keep service online

Effectiveness – concerns the ability of a test suite of preventing defects from introduced into the application

Efficiency – the cost of maintaining the test suite. Fewer lines of code means more efficiency

There are a number of metrics that can be used to measure efficiency and effectiveness

Test suite run time is an important efficiency metric

Unit tests should run very quickly

Run time of test suite should be less than 10 mins

**Mutation testing**

The extent to which the test suite will detect intro of defects as the software is changed

Aim of this technique is to estimate the likelihood that a change to a software system will be detected by one or more failing test cases.