ABB-QA-Key Performance Indicators
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WHAT IS THIS?

This document describes a way to measure and monitor test activities. It gives insight into test execution progress, productivity, and quality of the testing process and system under test.

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SOFTWARE TESTING REPORTING

Test execution reporting should contain below information:

Basic metrics:

- Overall number of test cases (by status)
- Test execution trend
- Number of defects and defect severity distribution
- Defect resolution time
- Defect open vs defect closed (trend)

For more complex projects more sophisticated metrics for reporting might be created.

These metrics should be available to all project stakeholders 24x7 and easily accessible.

TESTING SERVICES – KEY PERFORMANCE INDICATORS

Key performance indicator	Description	Measurement	Allowed Values	Comments
Quality - Percentage of escaped defects	It shows how many defects were moved to stage and production (QA testing missed them)	Escaped Defects / SUM of all defects (including escaped ones)	Critical: 0 High:2 Medium: 5 Low: 10	
Quality -Percentage of rejected defects	These are defects found in the product but not accepted by the developer or functional analysts as defects. A large number of rejected defects indicates whether the developer and tester are on the same page about the feature's functionality and its purpose	SUM of rejected defects / SUM of all defects	< 10 %	
Quality - Percentage of duplicate defects	These are defects which were already created and assigned to developers. The lower number the better. It shows the communication and focus inside QA Team	SUM of Duplicate defects / SUM of all defects	<10%	
Quality- Test Effectiveness	To check which test phase 'caught' the highest volume of defects. The highest percentage should point to Internal / SIT testing. The lowest to UAT	Number of defects found in test phase / total number of defects found in all phases	< 30%	SIT vs UAT
Quality- Test Case Related defects	Shows how many times test cases had to be corrected during a test phase (ideally it should be 0). This could be also shown as a percentage. It is verifying if test preparation phase was done correctly.	Sum of all test case relevant defects Sum of all test case relevant defects / volume of test cases in a given test phase	< 10%	
Quality – Critical/high severity defects index	Shows if the distribution of defects severity is as per Pareto rule. Too many critical/high defects indicates severe quality problem with a product.	Sum of all critical/high severity defects vs. overall number	<20% Threshold – to be defined	
Quality – percentage of test automated (regression)	Shows how much of regression tests were automated and helping to reduce manual workload	Sum of automated tests vs. total regression tests	>50%	

Quality – percentage of false negatives (automated tests)	Shows how often there are problems with automated test scripts.	Sum of false negatives vs. all automated tests in a single run	<5%	
Quality- defect resolution time	Shows how quickly defect is fixed & re-tested. Measures the effectiveness of the development & testing process.	Average time spent between defect is raised and closed	TBD on project level	Resolution time should be compared to defect Severity. Trend should be : faster resolution of more severe defects
Service- Turnaround time of regression testing	Shows how quickly full regression cycle can be executed. The more deployments to production are done the quicker turnaround time should be.	Time spent on executing full regression testing cycle	TBD on project level	
Service- Staff attrition	Shows how often employee in the service is replaced by another	Sum of all employees left/replaced vs overall no. of employees in a service	<20% on a yearly basis	

REVISION HISTORY

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A	all	initial version	Anna Pietras	2018-10-26
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