

# TECH BITS

## Software Testing Metric

Software Testing Metric is defined as a quantitative measure that helps to estimate the progress, quality, and health of a software testing effort. A **Metric** defines in quantitative terms the degree to which a **system, system component, or process** possesses a given attribute. The ideal example to understand metrics would be a weekly mileage of a car compared to its ideal mileage recommended by the manufacturer. Test Metrics Glossary

- Rework Effort Ratio = (Actual rework efforts spent in that phase/ total actual efforts spent in that phase) X 100
- Requirement Creep = ( Total number of requirements added/No of initial requirements)X100
- Schedule Variance = ( Actual efforts – estimated efforts ) / Estimated Efforts) X 100
- Cost of finding a defect in testing = ( Total effort spent on testing/ defects found in testing)
- Schedule slippage = (Actual end date – Estimated end date) / (Planned End Date – Planned Start Date) X 100
- Passed Test Cases Percentage = (Number of Passed Tests/Total number of tests executed) X 100
- Failed Test Cases Percentage = (Number of Failed Tests/Total number of tests executed) X 100
- Blocked Test Cases Percentage = (Number of Blocked Tests/Total number of tests executed) X 100
- Fixed Defects Percentage = (Defects Fixed/Defects Reported) X 100
- Accepted Defects Percentage = (Defects Accepted as Valid by Dev Team /Total Defects Reported) X 100
- Defects Deferred Percentage = (Defects deferred for future releases /Total Defects Reported) X 100
- Critical Defects Percentage = (Critical Defects / Total Defects Reported) X 100
- Average time for a development team to repair defects = (Total time taken for bugfixes/Number of bugs)
- Number of tests run per time period = Number of tests run/Total time
- Test design efficiency = Number of tests designed /Total time
- Test review efficiency = Number of tests reviewed /Total time
- Bug find rate or Number of defects per test hour = Total number of defects/Total number of test hours

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**Facebook picks 6 winners for Ethics in AI research awards in India:** The project winners, focused on areas like governance, cultural diversity and operationalising ethics. The project was open to academic institutions, think tanks, and research organisations registered and operational in India

**Bengaluru to get AI-powered traffic signals soon:** The new AI cameras will study traffic density and decide on how much time to allow vehicles to clear a signal. This will save fuel and give motorists an idea about when they can move.

**Google announces a new AI research centre in India:** The centre coming up in Bengaluru, called Google Research India, will focus on advancing fundamental computer science research to develop tools that can be used by government and private entities.

**Google Assistant to be available to Indian users without internet:** The virtual assistant will be available to people who have the most basic cellphone with no internet access. A 24x7 telephone line on Vodafone-Idea telecom networks could be dialled by users to access the service. Google has been testing the line in Lucknow and Kanpur.

**IIT-Kharagpur students build home-rechargeable three-wheeler:** A team of students and professors at the Indian Institute of Technology, Kharagpur has built 'Deshla', an electric three-wheeler that can be charged at home

**Maharashtra govt ties-up with Zipline to deliver medicines via drones:** The initiative will be supported through a grant from Serum Institute of India (SII). Zipline will establish about 10 distribution centres across Maharashtra in phases.

**MIT researchers create programmable ink to let objects change colours when exposed to ultraviolet light:** The 'PhotoChromleon Ink' uses a mix of photochromic dyes that can be sprayed or painted onto the surface of any object, including shoes, cars or phone cases. The process can take about 15-40 minutes, depending on the shape of the object.

**40% Indians fear losing job for controversial posts online:** According to a study by McAfee, 40% Indians agreed that they could be fired from their jobs for controversial content on their social media. About 25.3% admitted they did not know how to change the privacy settings of their profiles, while over half the users in India have at least one dormant social media account.

**YouTube awards 8 Indian creators with YouTube Learning Fund:** The fund is supporting the development of high-quality learning content, covering topics like English language training, environmental science, political science, among others.