

## **Test case design and execution**

Test case design and execution are critical aspects of software testing. Test case design is the process of creating test cases that will effectively identify defects in software, while test case execution is the process of running those test cases and analyzing the results to determine whether the software is functioning as expected.

One example of test case design and execution is the testing of a mobile banking application. To design test cases for this application, testers would need to identify all of the functions and features of the application, such as logging in, viewing account balances, transferring funds, and paying bills. They would then need to create test cases that cover each of these functions, as well as any possible scenarios or edge cases that could cause issues with the application, such as entering incorrect login credentials or attempting to transfer more money than is available in the account.

Once the test cases are designed, testers would then execute them on various devices and platforms to ensure that the application is functioning correctly. This might involve running the test cases on both Android and iOS devices, as well as testing the application on different screen sizes and resolutions to ensure that it is responsive and easy to use for all users.

Another example of test case design and execution is the testing of a web-based e-commerce application. To design test cases for this application, testers would need to identify all of the functions and features of the application, such as searching for products, adding items to the shopping cart, and completing the checkout process. They would then need to create test cases that cover each of these functions, as well as any possible scenarios or edge cases that could cause issues with the application, such as attempting to checkout without providing a valid shipping address.

Once the test cases are designed, testers would then execute them on various browsers and devices to ensure that the application is functioning correctly. This might involve testing the application on popular browsers such as Chrome, Firefox, and Safari, as well as testing on different screen sizes and resolutions to ensure that the application is responsive and easy to use for all users.

In both of these examples, effective test case design and execution are critical for ensuring that the software functions as expected and does not contain any defects or issues that could negatively impact users. By creating comprehensive test cases that cover all possible scenarios and executing them on various devices and platforms, testers can identify and resolve issues before the software is released to users.

In conclusion, test case design and execution are critical components of software testing that can help identify defects and ensure that software functions as intended. By carefully designing test cases and executing them on various devices and platforms, testers can help ensure that software is of high quality and meets the needs of users.