

# MOBILE APP QUALITY ASSURANCE:

THE ROLE OF QA IN  
PROJECT SUCCESS



Quality Assurance, or simply QA, is an essential part of mobile app development. Unfortunately, many clients tend to underestimate the role of QA, which has a particular importance for [enterprise app development](#) and should be involved in every stage of the process, either in creating the outlines of the project, setting requirements, developing test specifications, app testing, release or post-launch support.

## How QA is Different from Testing?

Testing and Quality Assurance are sometimes referred to as one process in the mobile development industry, which results in a blurry line between the two terms. For example, it is not rare that testers are referred to as quality assurance experts.

### Are these terms interchangeable?

Of course, they are both targeted at quality, but the main difference lies in the fact that quality assurance is neatly integrated into the development process, while testing is done after the [app has been coded](#) and designed.

There is another term that can be easily mixed up with Quality Assurance - Quality Control. QC ensures that apps have been checked for quality and that their quality meets the requirements. Its primary role is to search for bugs and make sure that they are eliminated. It is a responsibility of the project team.

Although testing is performed as a part of Quality Control, they are not equal things. QC's activities, apart from testing, involve code inspection, technical reviews and phase-gate processes.

On the other hand, QA lays down the rules for the development process. It creates and implements various tactics to enhance quality throughout the development stage and to ensure that all the

requirements are met. It aims at preventing errors and bugs and is constantly improving the process. QA is responsible for training, setting standards, reviewing quality and selecting tools.

## QA Strategies to Deliver Quality Apps

Every software release consists of a number of new features, such as changes in the interface, bug fixes or stability improvements. QA engineers should think of various practices to efficiently manage the workload and ensure the highest quality for your business application. Here are the best practices to follow:

- **Reconsider the traditional role of QA.** Integrate QA in every stage of the development. Listen to your customers, pay attention to the experience they have with the product and their wishes. Share the info with designers and coders. It is important that QA experts know how to write code - because they will be able to find flaws before they make their way from paper to code. Generally speaking, QA has to become an integral part of every stage of app development, be it customer communication, coding or design.
- **Prioritise testing efforts.** It is impossible to test every single detail of an app for every release, and you do not need to. Quality can still be ensured if you concentrate on the parts of the code that have changed the most and use automation tests to check other areas. You should not spend time on the code that has always worked fine and has not been changed. Focus on the new code and the parts that have been altered.
  - **Analyse usage data.** Fixing bugs is always essential, but what is the criteria for choosing which bugs to fix first? Usage data, of course. You can easily check it in [Google Analytics](#) or any other tool you like. It gives you a lot of useful information. For instance, if you see that a feature is rarely used, you give that code area a lower priority. But do not ignore your users - any issue a user reports should be immediately prioritised, that is a core principle for all business apps.
- **Stick to the relevant environment.** Everyone has heard the comment, “...but it worked on my machine” but not everyone knows how to avoid it. Actually, it is quite simple - make sure that your staging environment simulates your customer’s experience with an app.
- **Focus on security.** Enterprise [app development](#) is all about security. It is extremely important to perform security tests to ensure the safety of corporate data. Penetration testing is an efficient method to reveal security vulnerabilities - a testing team, which consists of experts familiar with various security standards, tries to penetrate the system and find security holes to prevent malicious hackers from stealing valuable data.
- **Ensure in-depth performance testing.** Run performance tests as soon as the app is stable and do not forget to assess all the risks beforehand. For example, if you add a new button to the screen, there is no need to run performance test unless you feel that it might have an adverse effect on performance.

- **Run regression tests.** Regression testing is usually a final stage that gives the green light for app release. At this point there are no major changes in development, which makes it possible to validate the product as a whole. It can be helpful if you model an app as a tree with branches - when any branch is changed, all the branches below are affected too and, as a result, require additional testing.
- **Recreate user accounts.** Since an enterprise mobile app stores valuable corporate data, you must ensure that it will not be affected by any updates. So when you test data migration, always use a test account to generate new data and populate the databases. Regularly check that the data is not damaged and eliminate all the data-corrupting bugs.

## What QA Deliverables Should a Developer Provide?

You cannot afford to save money on QA - that is the first thing you should remember when figuring the budget of a mobile app for your business. QA activities account to 25-50% of the app development process, that is why the cost can be pretty high. But if you do not include QA in the budget now, you will pay for it later when you discover that your app is full of bugs. It is always cheaper to prevent bugs than to eliminate them. If you do not do it on time, you will have to spend twice the size of your budget, without mentioning all the angry users you will have to apologise to.

“OK, I have included QA in my app’s budget. But how can I check that it is duly performed?” you may ask.

Bugs are inevitable, even tech giants like Microsoft, Google and Facebook have bugs in their software, there is no way to develop a bug-free application. However, there are ways to significantly reduce the number of existing bugs and to prevent new ones. The best strategy is to ask the developer to provide the following deliverables:

- **Test plan.** It lays the foundation for the success of a testing project. A test plan covers such aspects as test scenarios, team member responsibilities, test deliverables, environment and tools.
- **Test cases.** A test case is a list of actions you need to execute to check a particular feature or function of an app. You should make sure that tests cover about 70% of the app functionality.
- **Access to analytics.** Demand an access to the bug-tracking system to be able to see what bugs have been detected and to control that they have been eliminated.

Enterprise mobile app development is a complex process that requires a highly professional and dedicated team which develop iOS apps, Windows and Android applications to assure quality throughout all the stages of production. All the big-name companies know that an application represents their businesses, that is why they are always willing to invest in quality. When you invest in QA, you invest in the quality of your application, as well as in the reputation of your business. Do you want to be on par with the best? Get in touch with Magora experts and we will provide you with all the necessary information about professional app development and make estimates for you business app.

