

The Most Common Software Bugs

Everybody makes mistakes from time to time and we all should get used to this fact. Sometimes they happen because of the poor quality of work performed by its provider, sometimes because of misunderstanding and sometimes because of a simple, small accident. No matter what the cause, mistakes are unwanted in most cases. No matter how much you can learn from mistakes it is better to avoid making them. In general, mistakes can be dangerous due to the unpredictability of their consequences. It can be easily spotted especially in software development. There are bugs that may be harmless and invisible but at the same time, some of them may cause software or applications to crash or even lose data. That is why all of them should be spotted and fixed in the early stages of the software development process when they are not dangerous for the whole project. You should think about it while choosing your software development partner. There are a lot of IT companies that provide tests of the software and can find the bugs but it is more effective to order it with your software provider who knows the code and their product the best. There are certain errors that occur frequently in many IT projects and an experienced tester should spot them in few moments. Below, you can find a list of some of the types of software bugs:

Crash

One of the most common and sometimes dangerous types of error that may occur. A situation when the software solution, operating system or program stops working properly and forces itself to shut down. It might be caused by a software bug or sometimes by a hardware device and can cause a lot of damage. If the data is not protected or stored in the cloud it might be lost after the crash because of lack of opportunity to save the changes.

Functional error

One of the most basic qualities of software is the fact that everything works as it was intended to do and the software solution is fully functional. But if there is something wrong and the behaviour of the software varies from the expected, we call it a functional error. It is quite common and easy to spot during the tests. For example, the functionality of the Cancel button is that the window should be closed and none of the changes should be saved. If the button is, for example, not clickable than it is a functional error.

Acknowledgment message error

This error happens when a user is acknowledged or given feedback with a wrong message or with no message at all. There are many activities after which users should be informed that the actions have been taken or changes have been made but the message is incorrect. For example, failing to provide users with a necessary email after signing to the newsletter.

Typos

Missing a single letter or a punctuation mark happens all the time and sometimes it is hard to find out what went wrong. These are one of the most common mistakes made during coding that

may affect the whole functionality of the program. These bugs are not easy to spot but it is very easy to correct them when found.

Missing command

This particular type of bug occurs when there is a command missing. The user is expecting an action or to be allowed to perform some activity. For example, when the user is in the middle of the process of purchasing goods in an online store and changes their mind but the system does not allow them to cancel the process before the finalisation. The customer expects to have the possibility to stop the process but the software does not have an option to do so.

Calculation error

In most of the processes, calculations are vital and it is important to make sure everything *adds up* correctly. At the same time there is a huge field for errors to occur by implementing incorrect formula, units, logic or types of data. For example, in 1999, NASA had lost its Mars climate orbiter immediately after arriving at Mars. It was caused by one of the subcontractors of NASA who used English units instead of universal metric system units.

Hardware usage error

This type of error occurs when the software is being used on a wrong device or in an unadjusted environment. A specific solution should adjust to particular types of devices with the capability to handle all its functions. It is important to provide hardware adapted to the software. Most common hardware usage errors are caused by the wrong operating system, too low computing power or a mismatched device.

Control flow error

Control flow of software describes what will be done next and on what conditions. Errors connected to the control flow prevent software from proceeding to the next tasks in the correct way and this may slow down the workflow of the whole company. For example, if a user, after clicking the “save and next” button at the end of a questionnaire or a process is not redirected to a new tab, it is a control flow error.

To sum up, errors, bugs and mistakes occur everywhere and they can cause a lot of damage if not found and fixed early, especially in the IT industry. Sometimes missing a single comma can affect the whole IT product and we should put the pressure on detecting and fighting the bugs. Nowadays, a lot of IT companies have their own testers who work long hours with every element of a new software solution to find errors and to eliminate them one by one. Remember this while choosing your IT partner.