How do you verify and validate software changes?

Powered by AI and the LinkedIn community

Top experts in this article

Selected by the community from 4 contributions. **Learn more**

Contribute to 3 or more articles in this skill to be eligible to earn a Top Software Testing Voice badge. Check back tomorrow for your updated progress.

Start a contribution

Mellissa-Sue Anderson
MEng MIET | System Verification Test Lead at Elekta

View contribution · 3

Junaid ur Rahman Khan
Senior SQA Engineer @Securiti.ai | ex TPS

View contribution · 2

1 Verification vs validation

Verification and validation are two related but distinct concepts in software testing. Verification is the process of checking whether the software changes meet the specified requirements and design specifications. Verification answers the question: "Are we building the product right?" Validation is the process of checking whether the software changes meet the user needs and expectations. Validation answers the question: "Are we building the right product?" Both verification and validation are essential for ensuring software quality and avoiding costly rework or user dissatisfaction.

Add your perspective

Mellissa-Sue Anderson Follow
MEng MIET | System Verification Test Lead at Elekta

It is very important to understand the difference between verification and validation for medical devices especially for devices that include software or software as a medical. Failure to do these properly can sometimes be the difference between a life or death result. Verification ensures...see more

Like · 3 ···

Junaid ur Rahman Khan Follow
Senior SQA Engineer @Securiti.ai | ex TPS

Verification and validation are two essential processes in quality assurance and testing. Verification checks if a product meets its requirements and is built correctly, while validation assesses if it fulfills its intended purpose and meets user needs. For instance, in the developme...see more

Like · 1 ···

2 Testing techniques for software changes

Depending on the scope and nature of the software changes, different testing techniques can be used to verify and validate them. Unit testing is focused on individual components or modules of the software, while integration testing is concerned with the interactions and interfaces between different components or modules. Regression testing is used to ensure that existing functionality of the software is not affected by the changes, which can be done manually or automated. Finally, acceptance testing is conducted by end users or stakeholders to ensure that the software changes meet their needs and expectations. This can be done in a simulated or real environment, using user stories or use cases that describe desired outcomes and behaviors of the software.

Junaid ur Rahman Khan Follow
Senior SQA Engineer @Securiti.ai | ex TPS

Regression testing is a crucial technique for software changes to ensure they don't introduce defects or negatively impact existing functionality. It involves retesting previously tested code to validate that changes haven't introduced new defects. As an example of what I have done, a pop...see more

Like · 2 ...

3 Best practices for software change testing

Software testers should **plan and prioritize testing activities** based on the risk and impact of the software changes, utilizing risk-based testing or impact analysis techniques. Additionally, they should communicate and collaborate with developers, users, and stakeholders throughout the testing process, using agile or iterative methods or tools. Furthermore, it is essential to document and report the testing results, issues, and feedback with test management or defect tracking systems. Lastly, testers should review and

Junaid ur Rahman Khan Follow
Senior SQA Engineer @Securiti.ai | ex TPS

Best practices for software change testing are essential to

systems. Lastly, testers should review and improve the testing process and practices with metrics, feedback, or lessons learned. Software change testing is an important part of software quality assurance and control. By applying verification and validation techniques properly, software testers can make sure that software changes meet the requirements, specifications, needs, and expectations of the software project.

Best practices for software change testing are essential to ensure that code changes do not introduce defects or disrupt the stability of a software system.

One fundamental practice is to conduct thorough ...see more

Like ···

4 Here's what else to consider

This is a space to share examples, stories, or insights that don't fit into any of the previous sections. What else would you like to add?

Contribute to 3 or more articles in this skill to be eligible to earn a Top Software Testing Voice badge. Check back tomorrow for your updated progress.

Some ways to get started:
- One time at work...
- In my experience...
- One thing I've found helpful...

Cancel Add

Software Testing + Follow

Rate this article

We created this article with the help of AI. What do you think of it?

It's great It's not so great

Contribute to other collaborative articles

Programming
What is HTML5 and how does it differ from HTML?