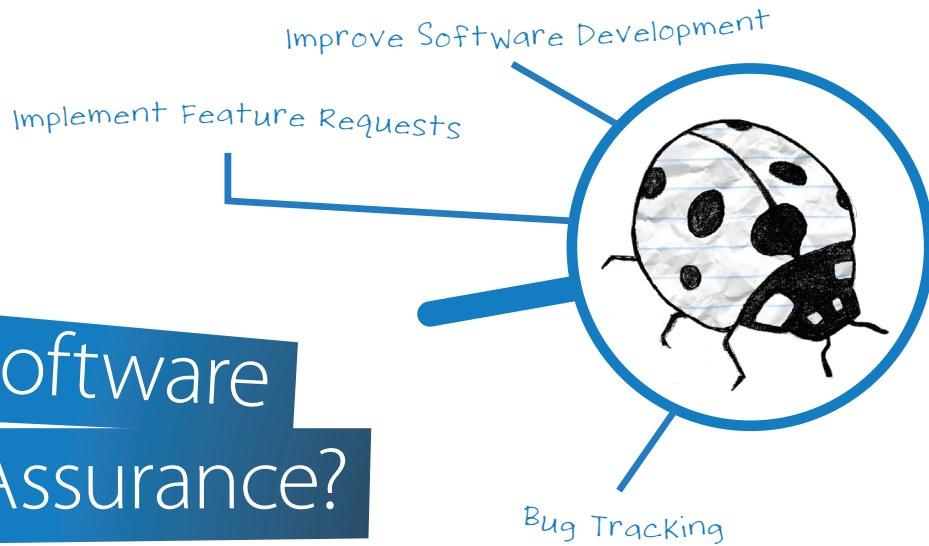


# What is Software Quality Assurance?



Software Quality Assurance is so much more than just testing.

According to Wikipedia, "Software quality assurance (SQA) consists of a means of monitoring the software engineering processes and methods used to ensure quality. The methods by which this is accomplished are many and varied, and may include ensuring conformance to one or more standards, such as ISO 9000 or a model such as CMMI."

Software QA ensures that software does what it's supposed to do, meets the requirements of the end-user or customer, and it is relatively "bug" free.

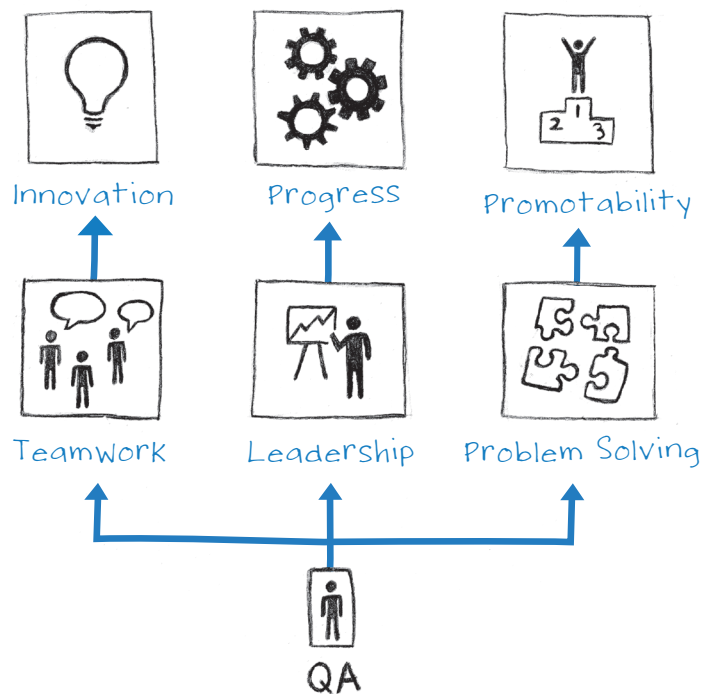
OK, but what's the big deal with software quality assurance? Quality control and quality assurance are not new concepts. Most companies have surely implemented a solid SQA process by now, haven't they?

Not really. Just consider:

- Some point to software errors for the recent problems reported with Toyota cars.
- NASA is said to have lost \$125 million in 1999 when a software error resulted in a spacecraft crashing on Mars.
- The Standish Group recently estimated that low-quality software costs the U.S. economy \$60 billion each year.
- Gartner Inc. claims that 80 percent of unplanned downtime in the enterprise is caused by software application and production errors, which can cost as much as \$100,000 per hour.
- 50% of software applications that are put into production are later rolled back due to quality issues and 40% of unplanned downtime is caused by software application failures.
- Software-related downtime costs the industry \$300 billion annually.

And, in addition to increasing costs, software errors can also subject a company to unfavorable publicity.

Businesses can't afford delays in their product releases as a result of software problems. Companies doing business on the web can go out of business if their web store can't deliver the goods. Computer game manufacturers risk alienating their customers if a new game is released with bugs. Increased government regulations (e.g., Sarbanes Oxley) have also forced companies to ensure their software is compliant with strict quality standards.



It sounds like there are some great opportunities in software QA. Tell me about the career path for an SQA specialist.

Many companies are putting a much greater emphasis on software QA. For example, the ratio of developers to testers at Microsoft is 1:1. While it's true that a significant amount of programming has been off-shored to international companies, many see a need to keep SQA and testing local – to be sure the software meets the needs of the end user. Some experts note that job prospects for Software QA Analysts are growing faster than opportunities for developers. IBM estimates that 80% of business software applications are not properly tested before being implemented. Given the high costs of poor quality, there is a lot of work for Software QA Analysts in any economy. Software QA professionals can enjoy a career path that could lead to opportunities as a product manager, business analyst, domain specialist, trainer, or sales rep.

The work is also becoming more challenging as quality assurance moves to automation. It takes a real engineering mindset to understand the software, analyze how it's used and how it should be tested, and to create sophisticated automated testing scripts.

#### Who is Seapine Software and why should I work there?

Founded in 1995, Seapine Software is headquartered in Mason, Ohio, with three international sales and support offices. Our feature-rich, team-based tools include requirements management, issue tracking, software configuration management, automated software testing, load testing, and test case management solutions that can be used separately or seamlessly integrated.



We compete with some of the industry's giants, including IBM, HP, and Microsoft, and we have a worldwide customer following. Customers are excited about using our software and frequently introduce our tools to new employers. In fact, one person looking for a job recently told her new employer that using Seapine tools was a condition of her accepting their job offer. And the quality of our software is outstanding. The Jolt Award is the Academy Award of the software business – we've won six. Our products can compete with anyone's.

#### Seapine is an enthusiastic employer of college co-ops.

We look for students majoring in Computer Science, MIS, or other related majors. We provide meaningful experience working with application lifecycle management tools in a professional software development environment. Co-ops work with our engineers to create cross-platform products that support Windows, Linux, and Mac OS X.

Our employee-friendly environment, casual dress code, free soft drinks, Nintendo Wii Systems in both break rooms, and an office just across I-71 from Kings Island are only a few of the reasons Seapine Software is a great place to work.

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