

SOFTWARE TESTING MARKET TREND

- *Over the last one decade the profile of software tester has undergone tremendous changes. Testing has become show-stopper for several application/product implementations and business has realized the importance of structured testing of applications before release.*
- *As long as developers are developing the projects, tester will be testing them. Customer will not accept product without complete testing.*
- *Initially, software testing and software development went hand in hand, but now it has emerged as a specialized discipline in itself. Today companies around the world invest more than €50 billion per year in applications testing and quality assurance.*
- *This area is of high strategic importance as the results of this study underline: the vast majority of the managers surveyed – 91% – confirm that software testing and quality assurance are among the most important IT disciplines in the company.*
- *With growing complexity of applications and the technology involved, organizations are increasingly focusing on software testing.*
- *A recent survey conducted by QAI across 90 companies involving over 4,000 software professionals indicates interesting trends in the area of software testing. 50 out of 90 companies have over 200 dedicated testing members, which is approximately equal to 20 percent of their total workforce.*
- *The new report, '**Software Testing Market in India**', states that India has become one of the major destinations for outsourcing software testing services owing to the availability of cost effective talent pool. Increasing number of software development companies are outsourcing their software testing work to India owing to a rise in demand for software testing services.*

- *This high demand is generated in order to prevent software bugs that result in huge losses for the company. United States is the key market for the big Indian testing vendors, followed by Europe and Middle East.*
- *A software development with poor testing may lead to poor coding thereby escalating risk of errors. Further rising competition from other low cost nations pose a threat to India's dominance in the testing industry.*

“IF YOU WANT TO BE A PART OF A DYNAMIC AND BOOMING INDUSTRY, THEN YOU MIGHT WANT TO LOOK AT SOFTWARE TESTING AS A CAREER OPTION. ONE SUCH CAREER OPTION IS SOFTWARE TESTING”

- *The worldwide software testing outsourcing market is expected to grow from \$30 Billion in 2010 to \$50 Billion in 2020 and India is expected to be the biggest beneficiary of this growth.*
- *According to a NASSCOM report on the testing industry. In 2010 India accounted for only \$3.2 Billion of the overall software testing market but is expected to grow to \$15 Billion by 2020.*
- *Software Testing as a career Over the last few years, the profile of the software tester has seen phenomenal growth. Testing has become crucial for several application/product implementations and businesses have begun to realize the importance of structured testing of applications before their release.*
- *In recent times, testing is seen as a good professional career for many. From being a test engineer, one can grow to become a senior test engineer, from a test lead to a test manager; or alternatively, one can become a QA lead or QA Manager. Moreover, the options available in the testing tools side are vast.*

- *There are a number of functional, performance, security testing tools besides test management tools like Quality Center from HP, CQTM from IBM etc. The growth prospects in the Software Testing domain are tremendous*
- *Professionally trained software testers are in great demand nowadays and are sought after in the industry. One can either become part of an independent software testing company or join an internal software testing department in a leading firm. However, one must keep in mind the fact that specialization is a must in a testing career – One needs to specialize to move ahead in the career path of testing. Following are some of the key areas for specialization:*
 - *Domain Knowledge*
 - *Automation Testing Tools Knowledge*
 - *Professional Certifications*
 - *Niche Areas In Testing*



PROFESSIONAL CAREER PATH: SOFTWARE TESTING



PERKS BY TYPE

There are a range of perks, but the most common for testers is bonuses and profit sharing.



BONUS up to

\$5K (entry level)
\$6.5K (tester) and
\$14.5K (managerial)



PROFIT SHARING between

\$1K and \$5K (entry level)
\$4K and \$9.6K (tester), and
\$600 to \$10K (managerial)

TYPES OF TESTING

Learning each of these areas is recommended to reach a managerial level:



FUNCTIONAL TESTING

tests the program to ensure it meets all of the established business objectives



PERFORMANCE TESTING

tests the program to ensure that it can withstand more extreme circumstances, such as hacking, users who don't read how to work the software, or compatibility with established software



SPECIALIZATION

focuses on a single aspect of a program, such as security, access, or deployment

SKILLS



DETAIL ORIENTED



ANALYTICAL



PROBLEM SOLVING



GOOD COMMUNICATION

DESIRED KNOWLEDGE

Certain areas are seeing a higher demand than others. The following are some of the codes and areas seeing the highest demand for testers:



ASP.Net



C++



Chef



Java



.Net



Python



Ruby



Selenium



System Testing

STATISTICS

In 2014, the US Bureau of Labor Statistics predicated continued growth and demand for testers, with roughly **100,000** positions being opened by **2022**. The average salary across all levels is **\$75,444**, making the position one of the most stable and highest paying in the country.

Skills required to become a Software Tester

We will discuss the Technical and non-Technical required to become a Software Tester

Non-Technical Skills

Following skills are essential to becoming a good software tester. Compare your skill set against the following checklist to determine whether Software Testing is a really for you-

Analytical skills: *A good software tester should have sharp analytical skills. Analytical skills will help break up a complex software system into smaller units to gain a better understanding and create test cases. Not sure that you have good analytical skills.*

Communication skill: *A good software tester must have good verbal and written communication skill. Testing artifacts (like test cases/plans, test strategies, bug reports, etc.) created by the software tester should be easy to read and comprehend. Dealing with developers (in the event of bugs or any other issue) will require a shade of discreetness and diplomacy.*

Time Management & Organization Skills: *Testing at times could be a demanding job especially during the release of code. A software tester must efficiently manage workload, have high productivity, exhibit optimal time management, and organization skills*

GREAT Attitude: *To be a good software tester you must have a GREAT attitude. An attitude to 'test to break', detail orientation, willingness to learn and suggest process improvements. In the software industry, technologies evolve with an overwhelming speed, and a good software tester should upgrade his/her technical skills with the changing technologies. Your attitude must reflect a certain degree of independence where you take ownership of the task allocated and complete it without much direct supervision.*

Passion: *To Excel in any profession or job, one must have a significant degree of the passion for it. A software tester must have a passion for his / her field. BUT how do you determine whether you have a passion for software testing if you have never tested before? Simple TRY it out and if software testing does not excite you switch to something else that holds your interest.*

Technical Skills

Basic knowledge of Database/SQL : Software Systems have a large amount of data in the background. This data is stored in different types of databases like Oracle, MySQL, etc. in the backend. So, there will be situations when this data needs to be validated. In that case, simple/complex SQL queries can be used to check whether proper data is stored in the backend databases.

Knowledge and hands-on experience of a Test Management Tool: Test Management is an important aspect of Software testing. Without proper test management techniques, software testing process will fail. Test management is nothing but managing your testing related artifacts.

For example - A tool like Testlink or TestRail can be used for tracking all the test cases written by your team.

Knowledge and hands-on experience of any Defect Tracking tool- Defect Tracking and Defect life cycle are key aspects of software testing. It is extremely critical to managing defects properly and track them in a systematic manner. Defect tracking becomes necessary because the entire team should know about the defect including managers, developers, and testers. Several tools are used to track defects including QC, Bugzilla, Jira, etc.

Knowledge and hands-on experience of Automation tool: If you see yourself as an "Automation tester" after a couple of years working on manual testing, then you must master a tool and get in-depth, hands-on knowledge of automation tools.

Career Progression

Your career progression as a software tester (QA Analyst) in typical CMMI level 5 company will look like following but will vary from company to company

QA Analyst (Fresher) => Sr. QA Analyst (2-3 years' experience) => QA Team Coordinator (5-6 years' experience) => Test Manager (8-11 years' experience) => Senior Test Manager (14+ experience)

Alternate Career Tracks as a Software Tester

Once you have got your hand dirty in manual testing, you can pursue following specializations

Automation Testing: *As an Automation Test Engineer, you will be responsible for automating manual test case execution which otherwise could be time-consuming. Tools used IBM Rational Robot, Silk performer, and QTP, Selenium*

Performance Testing: *As a performance test engineer, you will be responsible for checking application responsiveness (time is taken to load, maximum load application can handle), etc. Tools used WEBLoad, Loadrunner.*

Business Analyst: *A major advantages Testers have over Developers is that they have an end to end business knowledge. An obvious career progression for testers is to become a Business Analyst. As a Business Analyst, you will be responsible for analyzing and assessing your company's business model and workflows. As a BA, you will intergrate these models and workflows with technology.*

Common Myths

Software Testing as a Career pays Less Developers are more respected as compared to Testers

Contrary to popular belief, Software Testers (better known as QA professionals) are paid and treated at par with Software Developers in all "aspiring" companies. A career in Software Testing should never be considered as "second rated."

Software Testing is Boring

Software Testing could actually "test" your nerves since you need to make sense of Business Requirements and draft test cases based on your understanding. Software testing is not boring. What is boring is doing the same set of tasks repeatedly. The key is to try new things. For that matter, have you ever spoken to a software developer with more than 3 years' experience? He will tell you how boring his job has become off-lately.