Software Company Centric Roles, Responsibilities and Higher Positions of Software Tester in Software Development Life Cycle

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ABSTRACT: Traditional Software Development Life Cycle is still most popular and used in many software companies. During each phase specialist team member/members are used to fulfill the requirement of user. In the same way the software Testers are also used at various phases depends on the company's strategies. So this paper is largely focuses on the Software Testers complete environment including its roles, responsibilities and future higher position that pusses by him/her.

KEY TERMS: Software Development Life Cycle (SDLC),Business and Research document (BRD), User Acceptance Testing (UAT), Engagement Manager (EM), QA (Quality Assurance),

I.   INTRODUCTION

SDLC is a mother of all life cycles related to Software development. Now a day's many companies are using the different models for creating new software, depends on the time, budget and the resources available. During each phase specialist team member/members are used to fulfill the requirement of user. In the same way the software Testers are also used at various phases depends on the company's strategies (1). We all know the roles, responsibilities, and higher position of software tester, but considering the current trends and software developments models we try to analyze the newly added terms instead of older once. The main important questions considered in this paper are as follows.

Q.1)Can anybody do testing in the company?
Q.2) Basic qualification criteria defined for Tester by the company?
Q.3) Roles and Responsibilities assign to Tester in the company?
Q.4)Future Journey/Higher Position of Tester?
Q.5) On what basis the Software Company "Ranked the Tester"?
Q.6) what's the company stands to enhance the knowledge of Software Tester?
Q.7) other than testing which prioritized work is assign to Software Tester?
This paper in organized as follows our work in the context of prior work (Literature review), Next all important findings depends on the seven different above mentioned questions send to different companies and finally involves conclusion and references.

II.   LITERATURE REVIEW

Software testing is a critical element in the software development life cycle and has the potential to save time and money by identifying problems early and to improve customer satisfaction by delivering a more defect-free product. Unfortunately, it is often less formal and rigorous than it should, because of unfamiliar with software testing methodologies, approaches, and tools. This paper mainly focuses on the SAS software for all kind of applications and provides proper training to handle the software. With that described about the software testing concept, roles and responsibility of SAS Professionals [1]. The next paper only focuses on the how we can be able to do testing on the Internet. In this paper roles and responsibility is also mentioned with respect to internet testing only [2]. This paper

improves the software quality considering the software management (responsibility), quality assurance and general issues related with software testing [3]. This paper focuses on (AOSE) agent oriented software engineering. The main objective of the paper is to extend the scope and support of role towards testing, thereby the vacancy for software testing perception in the AOSE series will be filled up testing based on the V-Model in order to add the next new component as of Agent-Oriented Software testing in the agent oriented development life cycle [4].

III. FINDINGS

Based on Seven questions related to software tester, send to different companies who work in different environments and try to learn new things. Followings are the questions and the all important reply from the said companies.

Q.1) Can anybody do testing in the company?
The data is collected from 20 major different companies work on different environments. Out of 20 companies 15 are share their data and 5 are not interested to expose the data.

Sr. No	If Agree	Not Agree	No Reply
1.	07	08	05

Q.2) Basic qualification criteria defined for Tester by the company?
Most companies are having similar opinion on this question. Following are the criteria required by the company.
1) Any Graduate or specially BE, MCA, MCM.
2)   Certified Course in Testing.
3) In Some Companies ISTQB (Global Certified Course in Testing) is required.

Q.3) Roles and Responsibilities assign to Tester in the company?
 Following are the most important **Roles** assign to Tester.
1)   Tester
2)   Engagement Manager: Who assign Task to each individual
3)   QA
4)   Verifies (V) – one or a group of employees verifying that the result meets previously set criteria·
5)   Signs off (S) – sign off the project (task) to the customer. This role can be combined with the Accountable one.

Following are the most important **Responsibilities** assign to Tester.
1)   Documentation
2)   Project Support
3)   Test   Case   Writing,Test case Designing, Test Data
4)   Check Status
5)   Iterate Once again
6)   Site Functionality
7)   Capture screen shot
8)   Generate issue category report like graphic related, backend related, Logic related etc.
9)   Create Final Report.

Q.4) **Future Journey/Higher Position of Tester?**
In simple sense the higher position of tester is like the following
1)   Trainee Tester
2)   Junior Tester
3)   Senior Tester
4)   QA (Quality Assurance)
5)
But in more Professional Way,The growth path of software tester in many companies is like this:

1. Associate Quality Analyst (trainee tester)
2. Quality Analyst – I (On competition of 1 years)
 3.Quality Analyst – II (On competition of 2 years)
4. Senior Quality Analyst - I (On competition of 2 years)
5. Senior Quality Analyst – II (On competition of 2 years)
 6. Associate Lead Quality (On competition of 3 years)
7. Lead Quality – I (On competition of 3 years)
8.Lead Quality – II (On competition of 3 years)
9. Senior Lead Quality – I (On competition of 3 years)
10.   Senior Lead Quality – II (On competition of 3 years)
11.   Associate Quality Manager (On competition of 4 years)
12. Quality Manager (On competition of 4 years)
13.   Senior Quality Manager (On competition of 4 years)

Q.5) On what basis the Software Company "Ranked the Tester"?
In a generic way any company ranked the employee on the basis of performance, the same thing happens with the Software Companies also. Besides performance following are some more factors considered to rank the Tester.
1)   Testing Skill
2)   Documentation Skill
3)   Interpersonal Communication
4)   Management Skill
5)   Leadership Quality
6)   Initiative
7)   Understanding and Consistency
8)   Deliveries on time
9)   Cost effective work
10)   Smartness in work
11)   Devotion to work

Q.6) what's the company stands to enhance the knowledge of Software Tester?
This is the most crucial point for the betterment of software testers. Since many companies considered software tester as a secondary member in the team. But if think in other way drastic change occur. Following are some reply from the said companies.
1)   Provide more opportunity to enhance the knowledge of Software Tester.
2)   Various Domain/Functional Training.
3)   Knowledge Sharing.
4)   Involve tester in project discussion meeting.
5)   Invite Professional Tester for the Seminar.
6)   Provide proper business and research document (BRD) to tester.

Q.7) other than testing which prioritized work is assign to Software Tester?
Following list provide other prioritized work other than testing assign to Software tester.
1)   Production Support
2)   Business Validation
3)   UAT Support
4)   Analysis Report Test
5)   Quality Flow Report
6)   Documentation, Creating User Manual, Requirement Gathering.

IV.   CONCLUSION

Still in many software companies, software tester is treated like secondary team member. But actually this is not a case. This paper largely focuses on the overall working i.e. the roles, responsibility, and future upcoming higher position that software tester might be pusses. While analyzing the complete paper no one treated software tester as a secondary member but as a most crucial part/ member in any software development. This paper based on seven important questions sends to many in fact 20 companies and from the valuable reply paper conclude in the following manner.

Q.1) Can anybody do testing in the company?
Ans: For the betterment of company, yes anybody can do the testing but at certain level and company should provide such kind of environment to team members. Bill Gates agrees with the importance of software testing, saying, "[At Microsoft,] we have as many testers as we have developers. And testers spend all their time testing, and developers spend half their time testing.

Q.2) Basic qualification criteria defined for Tester by the company?
Ans: Many companies have their own views on that one as per rules and regulations. But mostly person they hire must be graduate with software testing certificate at least.

Q.3) Roles and Responsibilities assign to Tester in the company?
Ans: Many roles and responsibilities are mentioned but most important role is to do all kind of testing and about responsibility do whatever which is beneficial to the company.

Q.4)Future Journey/Higher Position of Tester?
Ans: Staring with the trainee Tester up to the manager is the journey of the Tester.

Q.5) On what basis the Software Company "Ranked the Tester"?
Ans: In many ways company ranked the tester but most important is the performance. If the performance is at its best then company consider different aspects also i.e. overall behavior of tester.

Q.6) what's the company stands to enhance the knowledge of Software Tester?
Ans: Companies most likely domany things such as reviews, seminars, give proper training.

Q.7) other than testing which prioritized work isassign to Software Tester?
Ans: For the company growth , and maintain the financial position tester do many thing such as user manual, project documentation, user training, support etc.

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