**SQA Activities**

SQA is ensured through a Quality Management System (QMS), QMS is made of several components; it is a system integrated in the bigger system of software development, which comprises project, process and product management systems.

The Software Engineering Institute (SEI) recommends a set of activities, which, when implemented effectively, assures the designed quality. These activities include:

• Quality assurance planning

• Data gathering on key quality defining parameters

• Data analysis and reporting

• Quality control mechanisms

The first and foremost requirement in SQA is that it is a separate group responsible for quality in the organization. They set the goals, standards and mechanisms (systems) for SQA. The role of the SQA group is to assist the software development team in managing the quality requirements of the software. Every software has certain quality goals specified by the customer. These quality goals are to be achieved by the development team by introducing a set of activities or ensuring the delivery of quality to the customer.

SQA activities operate on the normal activities of quality management. These activities play the role of monitoring, tracking, evaluations, auditing and reviews to ensure that the quality policy of the organization is implemented. These activities are independently carried out, and feedback is given to the development team.

The responsibility of delivering the required quality to the customer rests with the development team. The development team has an obligation to implement quality policy in terms of goals, objectives, procedures, checks and controls, documentation and feedback to management. For example, the quality policy stipulates preparation of a test plan for stages for development as well as at the end of the development process. SQA has a variety of tools to implement the policy.

They are

• Auditing

• Inspection

Verify compliance with those norms and practices specified in QA policy; deviations are set right. Ensure that deviations are documented and reported and put into the QA database for guidance. Design and architecture is reviewed to ensure that standards are met and customer quality is assured. Implement change management. Collect data on various observations in the process of auditing, inspection and reviews to build QA database and to improve various standards.