The Software Engineering plays a vital role in the software development process and leads to the efficient satisfaction of end customers. This research work proposed a Hybrid Architecture to incorporate the need of software users and produces end product with quality and reduces the risk factors. There are three modules to enhance the quality of software and the risk associated with each defect encountered during development and testing process.

Agile oriented risk factors and the methodologies to handle the risk management are analysed. This concentrates on the defect and the effects on these defects over the product development. Agile oriented development utilizes the defects to analyse the risk impacts involved in the system. This helps to reduce the risk and manage the system within stipulated risk range. The Scrum framework opted to analyse the risk factors inculcated by the defect in the system.

Scrum Framework categorizes the risk and defects encountered in the system and how these risks are handled with help of scrum framework activities. The basic activities performed to manage the defect and risks are identification, Ranking, removal and management. These processes are common to both defect and risk related issues.

Every process carried out in the software development should be tested. Agile methodology and scrum framework based development is tested with the help of agile testing. With the help of testing strategies, every phase in the product development is tested and documents the procedures followed during the testing. The proposed methodologies are implemented using the
my route Google apps and compared with the existing techniques. From the comparison, the proposed methodology shows a better performance in terms of efficiency and defect reduction ratio. Thus the agile testing suites successfully for the agile methodology and scrum framework based development.