

Abstract

With the increase of cloud computing service models, the need to measure and evaluate them are increased as well. In this paper, we proposed a novel measurement approach for the purpose of evaluating the quality of Testing as a Service (TaaS), which is considered as one of the most recent outstanding model within cloud computing environment. (TaaS) as outstanding model include the provision of multi-sub services, such as enabling cloud customer to verify his own code through the use of cloud provider resources. Its goes without questioning that testing over web environment requires high level of resources, time, and effort. Therefore, it should take high attention toward the quality of the used testing technique. Where, the quality of testing technique associated with set of attributes that has the ability to determine testing effectiveness. Thus, in this paper we propose a measurement approach to evaluate the effectiveness of TaaS, over cloud computing environment which relies on the use of mutation score. The main contribution of the proposed model represent in the use of mutation score to evaluate cloud providers ability to perform TaaS, and rank them according to the percentage of TaaS effectiveness.