

A Quality Model for Big Data Applications

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Abstract

Big data is defined as the collection process, storing, modifying, and analyzing a large data set containing heterogeneous formats such as structured, unstructured, and semi-structured data. According to studies, the quality model can improve the big data applications services that serve well on its environments, whether in terms of increasing efficiency or keeping costs down. The thesis proposes a quality model for big data applications, with eight main characteristics and twenty-eight sub-characteristics. To test the validity of the proposed model, a questionnaire was designed and randomly distributed to the study population. Hierarchical analysis was used to process and analyze the data. The results proved the significance of these characteristics, as well as their order of precedence, and revealed the significance of sub-characteristics for each main characteristic indicating that all estimates are acceptable from the results of the analysis on the appropriate sample.

Key words: Big Data Applications, Characteristics, Quality, Quality model.