Formation of Use Case Scenario Based on Use Case Diagram Using Text Semantics for IdVar4CL Application Development

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***Abstract*— In forming a Use Case Scenario, alignment is needed between two artefacts, the Requirement Elicitation and the Use Case Diagram, so the software development meets the client's needs. There is a process for forming a Use Case Scenario that can be inconsistent with the Use Case Diagram. This inconsistency can occur due to differences in the interpretation of an artefact and a lack of validity and reliability between the software developer and the client's needs in representing it in a Use Case Diagram. This research aims to create a Use Case Scenario using a semantic text process based on a Use Case Diagram. After completing all stages of this research process, four main points emerged as results: ten Use Case Names accompanied by Use Case Diagrams with similar names, tabulation of the Use Case Scenario format, which is the result of the formation of related artefacts, the alignment of the Use Case Scenario formed based on the Use Case Diagram produces a comparison value of 0.39 "fair agreement" and a value of 0.75 "substantial agreement", and references that produce artefact improvements related to the Requirement Specification documentation for the formation of the Use Case Scenario. The results of this research are expected to help developers enhance development and documentation, making it more effective in consistently meeting user needs.**

Keywords—Use Case Scenario, Use Case Diagram, Text Semantic Similarity, Requirement Elicitation.