Generating UML Models from Agile User Stories: A New Technique

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Al-Zaytoonah University of Jordan, 2023

Abstract

In Agile methodologies, the User Story format has grown to be the preferred means of communicating needs. However, a requirement does not specify how a solution will be implemented physically. This thesis goal is to introduce a novel technique that converts user stories into Unified modeling language (UML) diagrams automatically. Our technique tries to automatically generate Class diagrams and use case diagrams.

Because user stories are written in natural language (English), a natural language processing tool had to be used to process them. In this instance, we used the NLTK Tool. By generating a comprehensive and understandable picture from extensive textual specifications, extracting conceptual models

from natural language needs can assist in identifying connections, redundancies, and conflicts across requirements. In this study, we offer an automated technique for extracting conceptual models from user story requirements that are based on natural language processing.