

Model and evaluation tool using graphs as knowledge base for the automated correction of exams in text format

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Abstract—The present work describes a method to analyze the answers of questions of an examination of the class Paradigms of Programming, given by students and written in the form of text written in natural language, to contrast their degree of coincidence with the answers to the same questions that were provided by the teachers of the class.

From the proposal arise elements called concepts and / or relations to which values will be assigned in order to be able to weight the response provided by the student and compare it with the weighting of the base answers elaborated by the teachers.

The techniques presented consider all possible situations that may arise in the student's response. As part of the field work, a sample of questions was answered by the students, corrected and qualified by teachers of the class Programming Paradigms, in order to be compared with the results of the prototype of the constructed system, whose results are exposed in this work.

Index Terms—text analysis; graph; pattern detection; recognition; path detection

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