

Identifying and Implementing an Automated System for Plagiarism Detection In Computer Programming Courses

Tiffany Litteral

Information Technology, Sophomore
University of Cincinnati Clermont
4200 Clermont College Drive, Batavia, OH 45103
littertm@mail.uc.edu

Abstract

Plagiarism is a common problem in academia. Specifically, plagiarism in source code and computer programming assignments can be difficult to detect. Because each specific language has its own identifiers and syntax, plagiarism in a source code is different from the written word. For this project, we define system requirements, research different tools available to detect source code plagiarism, select one that best meets the requirements, and configure it for use by University of Cincinnati (UC) faculty. We require the tool to be free-of charge, open source, and able to detect similarities for assignments written in the programming languages taught at UC, and able to assist faculty in the detection of plagiarism in assignments by either flagging suspected assignments, scoring the assignments based on similarity, or another method of detection. We describe the specifications of each tool, compare it with our requirements, test them using Google Cloud Platform, and configure one for UC faculty. This project enhances the quality of programming courses by assisting faculty at UC and others in accurate identification of plagiarism in assigned work and identifying students that may need help.

This research is part of final paper / research at the University of Cincinnati WISE Program "Identifying and Implementing an Automated System to Detect Plagiarism in Computer Programming Courses", whose mentor is Professor Delmer(Bill) Nicholson.

Keywords: Plagiarism
Computer programming courses
Plagiarism detection systems
Automated plagiarism detection

Acknowledgments

WISE REWU Summer 2018

*Professor Delmer(Bill) Nicholson
Advisor of Information Technology Program
University of Cincinnati Clermont
4200 Clermont College Drive, Batavia, OH 45103
nicholdw@ucmail.uc.edu*