



Automated Essay Grading

Summer 2022

FIU

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Introduction

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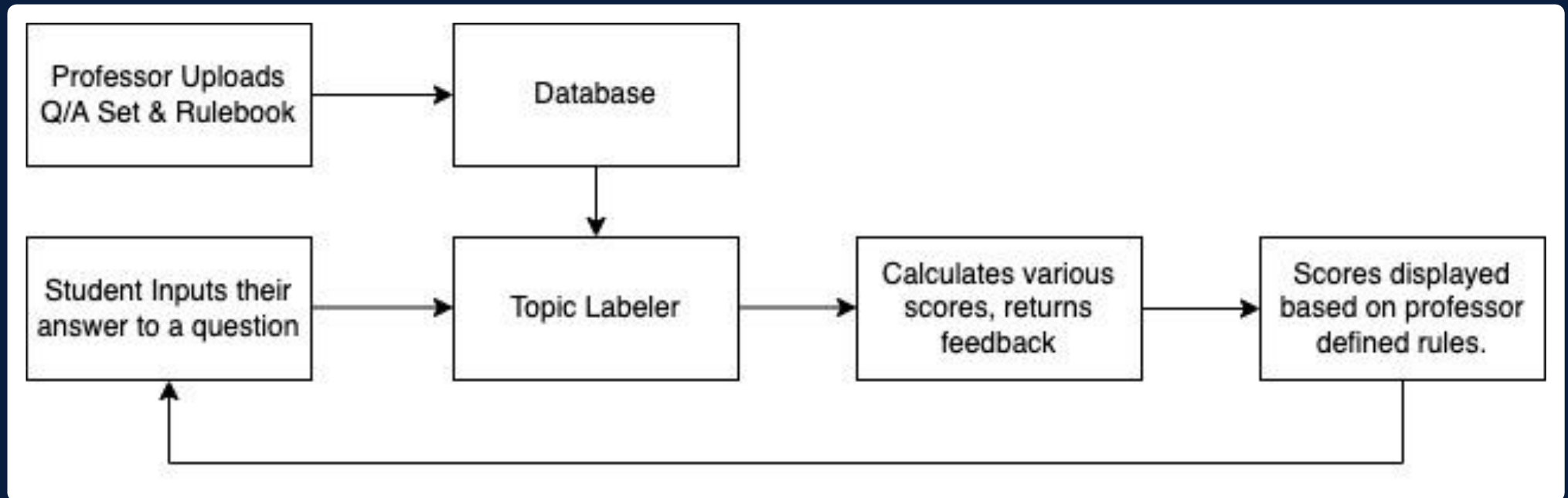


Problem Statement

- **Cons of manual grading:**
 - Tedious
 - Time consuming
 - Costly
 - Requires a lot of focus
 - Room for error
- **Cons of current system:**
 - No feedback given to students
 - No guidelines for answering essay questions



Solution





Current System

- StudyBuddy Pro
 - Case briefs
 - Lessons
 - Outlines
 - Courses
 - Workshops
 - Charts and notes
 - *Issue Spotting Essay Quizzes* *

* Quizzes include short response questions for various legal domains. At the moment, student's essays are not automatically graded.



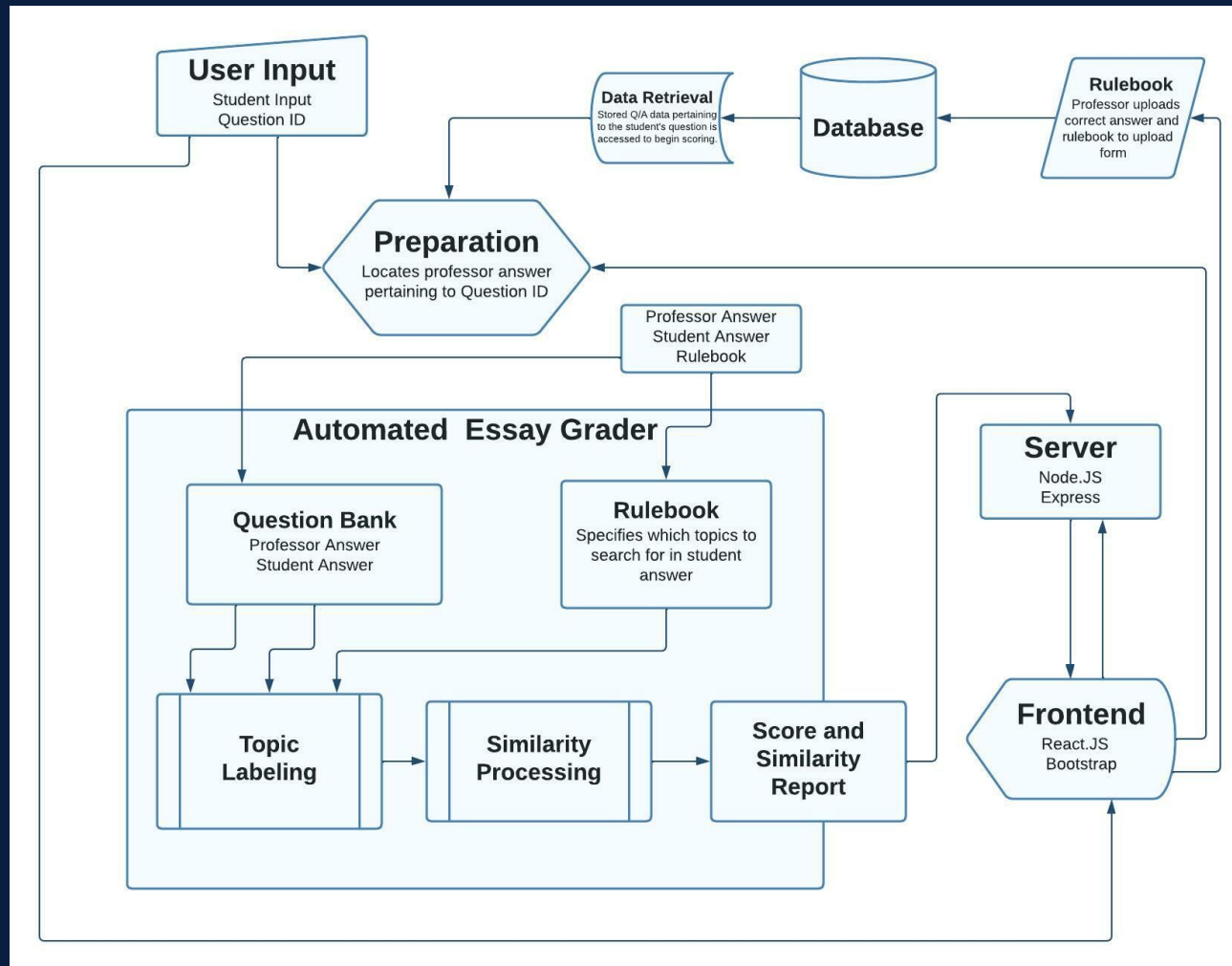


Requirements

- Professor should be able to specify grading criteria when uploading a Q/A set.
- Students should be able to view feedback on their answers upon submitting their quiz.
- Aside from the specified grading criteria, student answers should be scored on the following:
 - Topic identification
 - Grammar
 - Readability
 - Conciseness
 - Academic tone
 - Semantic similarity to the correct answer



System Design



Object Design

CaseBriefs
StudyBuddy Pro

Automated Essay Grading

Your Results

55/100

Mike will likely prevail, be allowed to keep his driveway, and be awarded title of the five feet strip of land in which it encroached. His five foot encroachment along Daniel's lot meets the elements to prevail on a adverse possession claim. Namely, his use of the land was open and notorious; and in his continuous and exclusive use for the statutory period. Further, it was hostile, as he did not have Daniel's permission and used the land as if it were his own. While a majority of jurisdictions do not care about Daniel's mindset, it is not of importance as the fact pattern suggests Mike acted in good faith, and treated the five feet plot as his own.

View Correct Answer

At issue is whether Mike obtained rights over the five feet of driveway that encroached onto Daniel's property. As Daniel did not grant Mike any right to use this stretch of property, Mike can obtain rights to this tract of property by prescriptive easement. A prescriptive easement is created when a person adversely and continuously uses a tract of the true owner's land for the requisite statutory period. Paving the five-foot tract of Daniel's land was an open and notorious use of that land which could have put Daniel on notice had he inspected his property. Mike's use of the five-foot tract was also hostile, as he did not have permission from Daniel, and actual and continuous as he paved the land and used it as part of his driveway for the statutory period of time required to acquire rights to the five-foot tract of land. Although Daniel had tenants living on his land when Mike paved it, it was up to Daniel to tend to his land and see that no one encroached upon it. As Daniel did not bring an action until after seven years had passed since Mike paved the tract of land, Daniel will lose and Mike will acquire an easement by prescription.

Conclusion

Inference

Issue

Policy

Rule

Scores

Corrections

Report

19

Structure

How well you identified topics and structured your answer according to the specified format.

Identified Topics: Inference

Missing Topics: Policy Rule Issue Conclusion

90

Conciseness

Meaning, logic and connection of each phrase and sentence in answer.

85

Grammar

Structure, syntax and semantics.

52

Similarity

Comparative analysis of relationship of words between your answer and the professor's answer.

64

Readability ⓘ

Your answer is readable and appropriate for your intended audience.

😊

Tone ⓘ

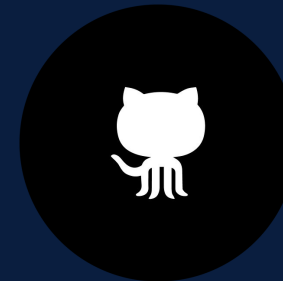
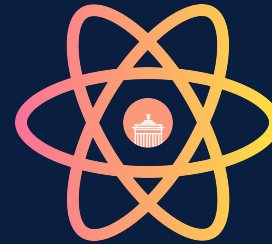
Neutral

Engineering
& Computing

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Implementation

- React
- Python
- MongoDB
- Flask
- spaCy
- LanguageTool
- Gensim
- NLTK
- TextStat
- Visual Studio





Verification

- Semantic Similarity
 - Pass**
- Topic Identification
 - Pass**
- Readability
 - Pass
- Conciseness
 - Pass
- Grammar
 - Pass
- Tone
 - Pass

** Improvements can be made for higher accuracy

** Lack of data





Summary

- Professors are able to upload a rulebook for a specific quiz.
- Students answers get graded based on this rulebook.
- Solves the problem of having to manually grade essays.
- Instantly gives the student feedback.
- Allows students to continuously improve their answers and prepare to write in a legal setting.

