

# Knight Foundation School of Computing & Information Sciences

## Automated Grading of Essays

Spring 2022 Capstone 1

**Students:** Matias Fuenzalida, Amani Hunt, Ailany Rodriguez, Michael Wei

**Mentor:** David Gray, BSBA/JD, StudyBuddy Pro LLC

**Instructor/Faculty:** Dr. Masoud Sadjadi, PhD, Florida International University

### PROBLEM

Need a system to grade and give feedback to law students responding to essay questions on the platform StudyBuddy Pro.

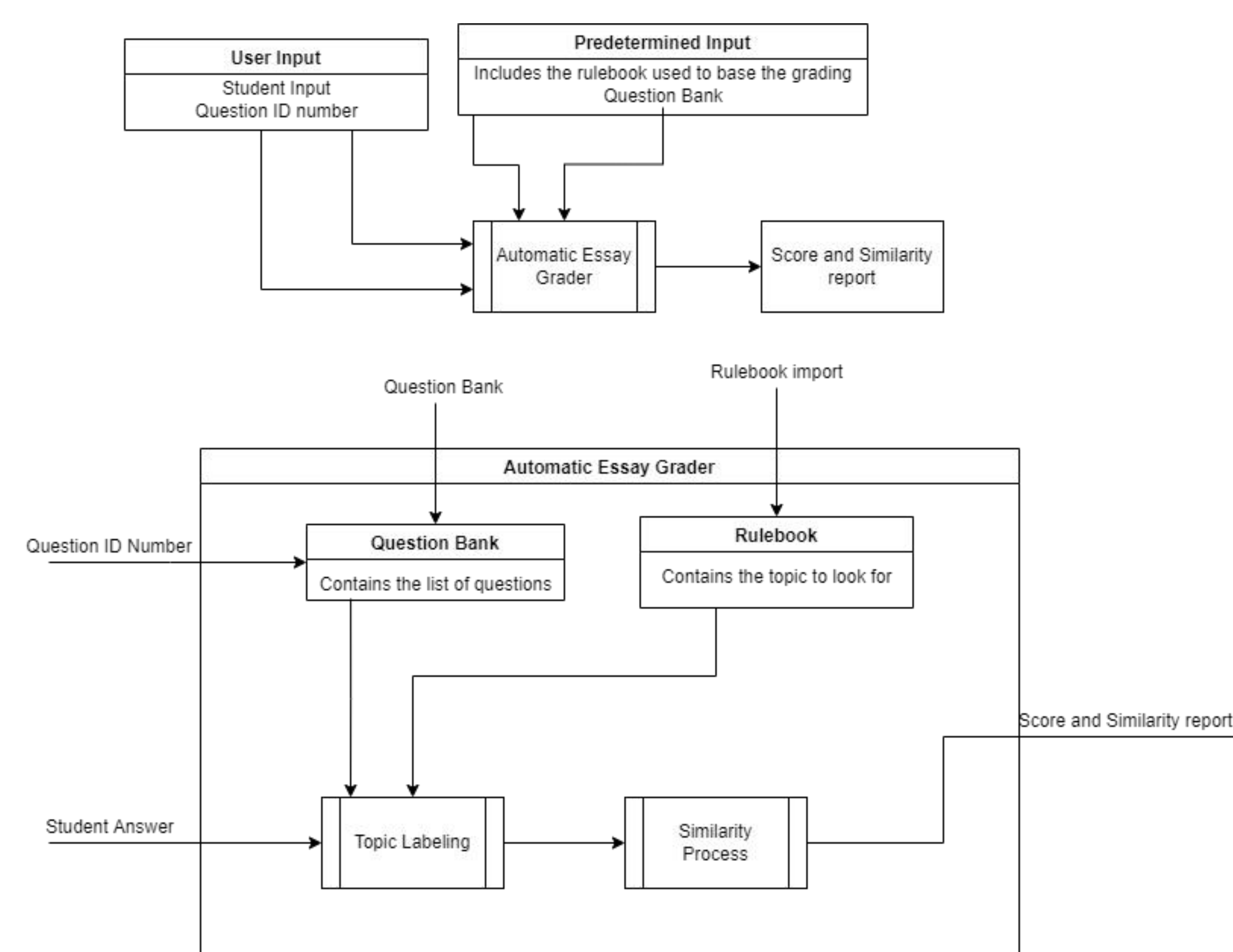
### CURRENT SYSTEM

StudyBuddy Pro currently has case briefs, lessons, outlines, refresher courses, issue spotting essays, multiple choice quizzes, exam prep workshops, and charts, and notes.

### REQUIREMENTS

- Create a question bank with essay questions for law students to practice
- Write an algorithm to grade student responses and give feedback on sections left out as well as grammatical and spelling errors

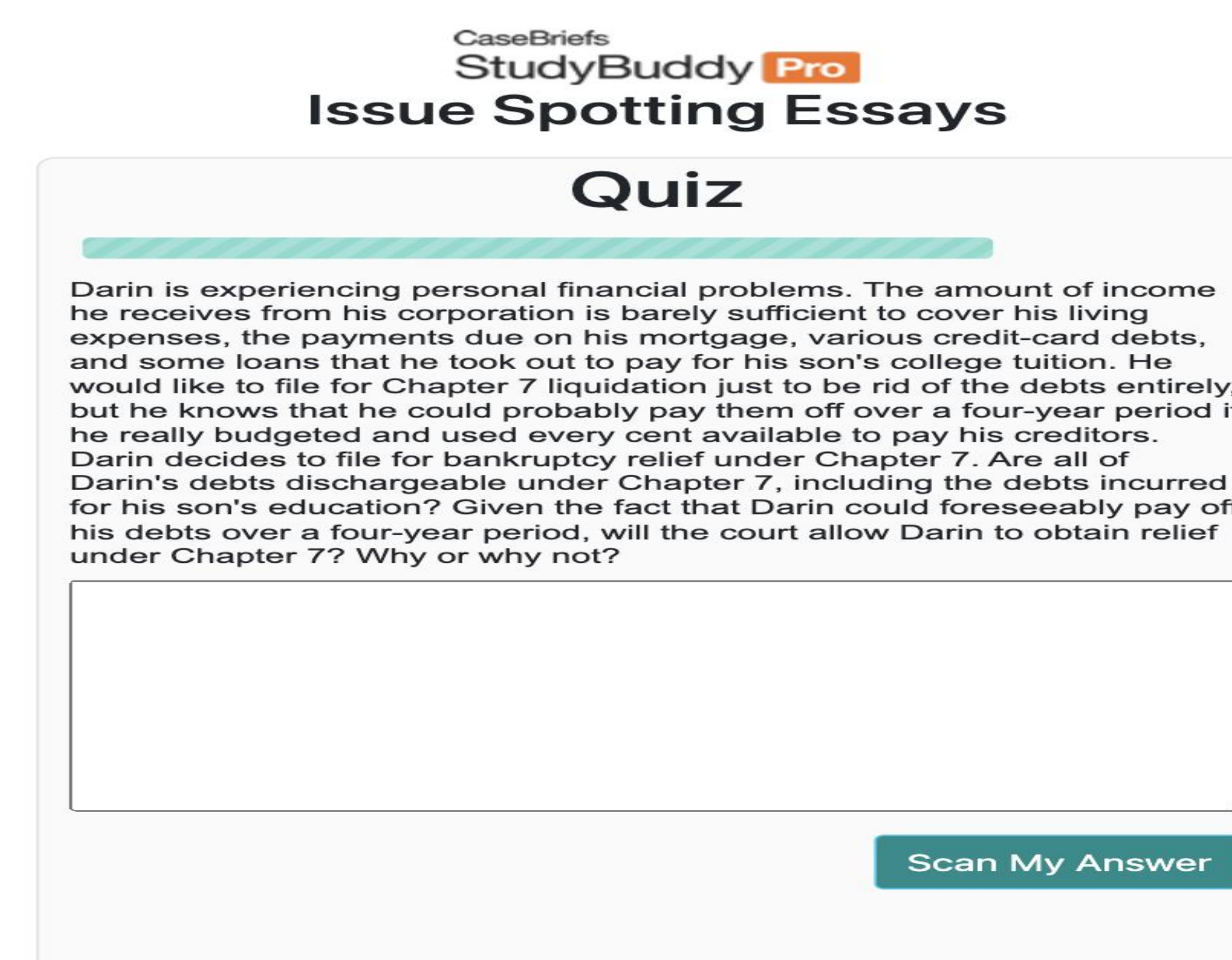
### SYSTEM DESIGN



### VERIFICATION

- Use synonyms to identify the topic in a student answer
- Compare student topic and professor topic in order to grade similarity
- Checks grammar and any spelling errors

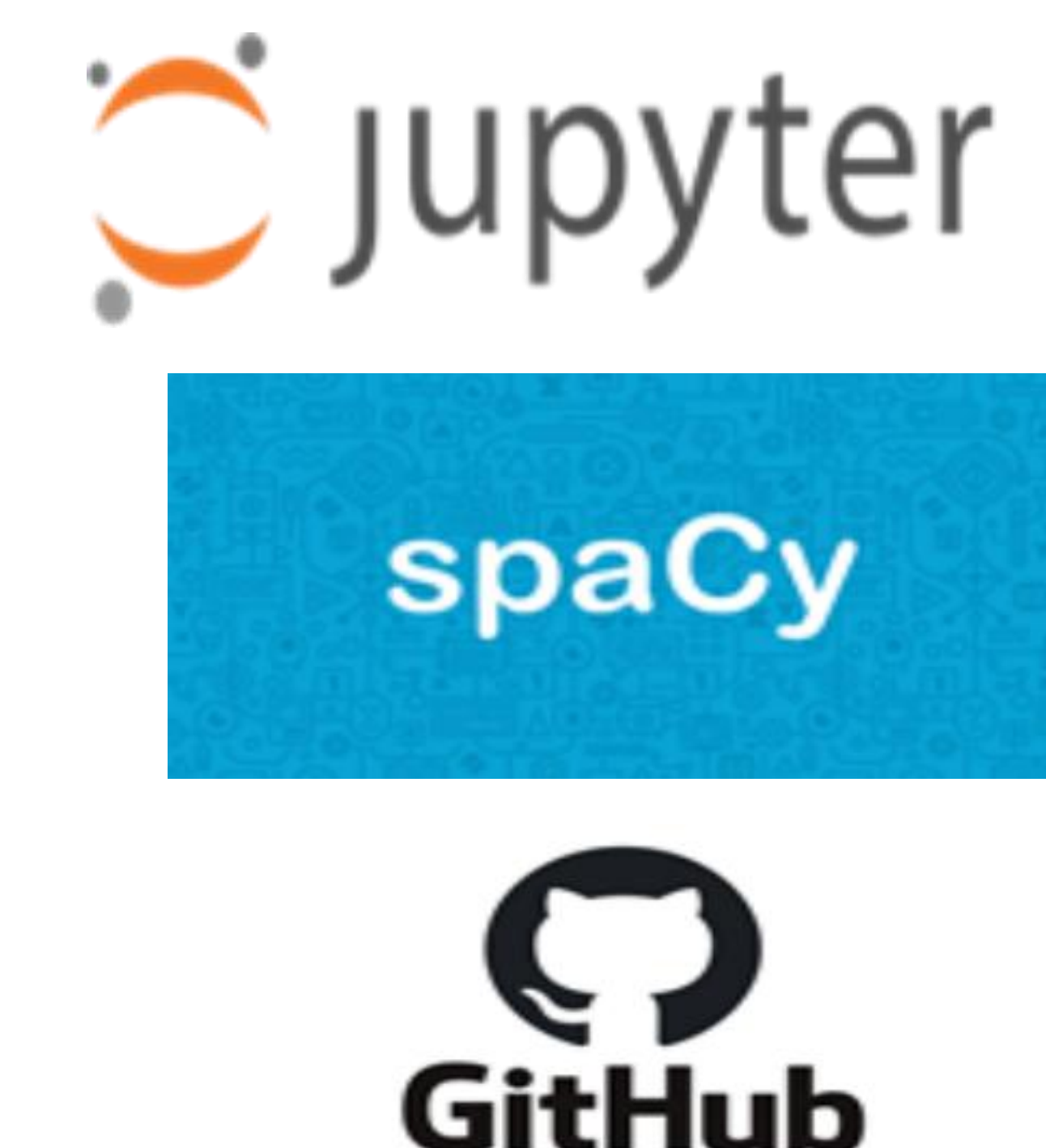
### OBJECT DESIGN



### SUMMARY

StudyBuddy Pro is a platform for helping law students succeed in law school by giving them essay questions to practice. Students get scores based on how well they answer the questions and receive feedback about sections missed as well as spelling and grammatical errors.

### IMPLEMENTATION



### REFERENCES

The appropriate materials were provided by the project owner David Gray from StudyBuddy Pro to support this project.

### ACKNOWLEDGEMENT

The material presented in this poster is based upon the work supported by Mr. David Gray. We thank Mr. David Gray for his assistance and mentorship that we received throughout this process.



## Automated Grading of Essays

**Students:** Ailany Rodriguez, Matias Fuenzalida, Amani Hunt, Michael Wei

**Mentor:** David Gray, BSBA/JD, StudyBuddy Pro LLC

**Instructor/Faculty:** Dr. Masoud Sadjadi, PhD, Florida International University

### PROBLEM

StudyBuddy Pro needs a way to provide more relevant/personalized feedback to students on their essay responses.

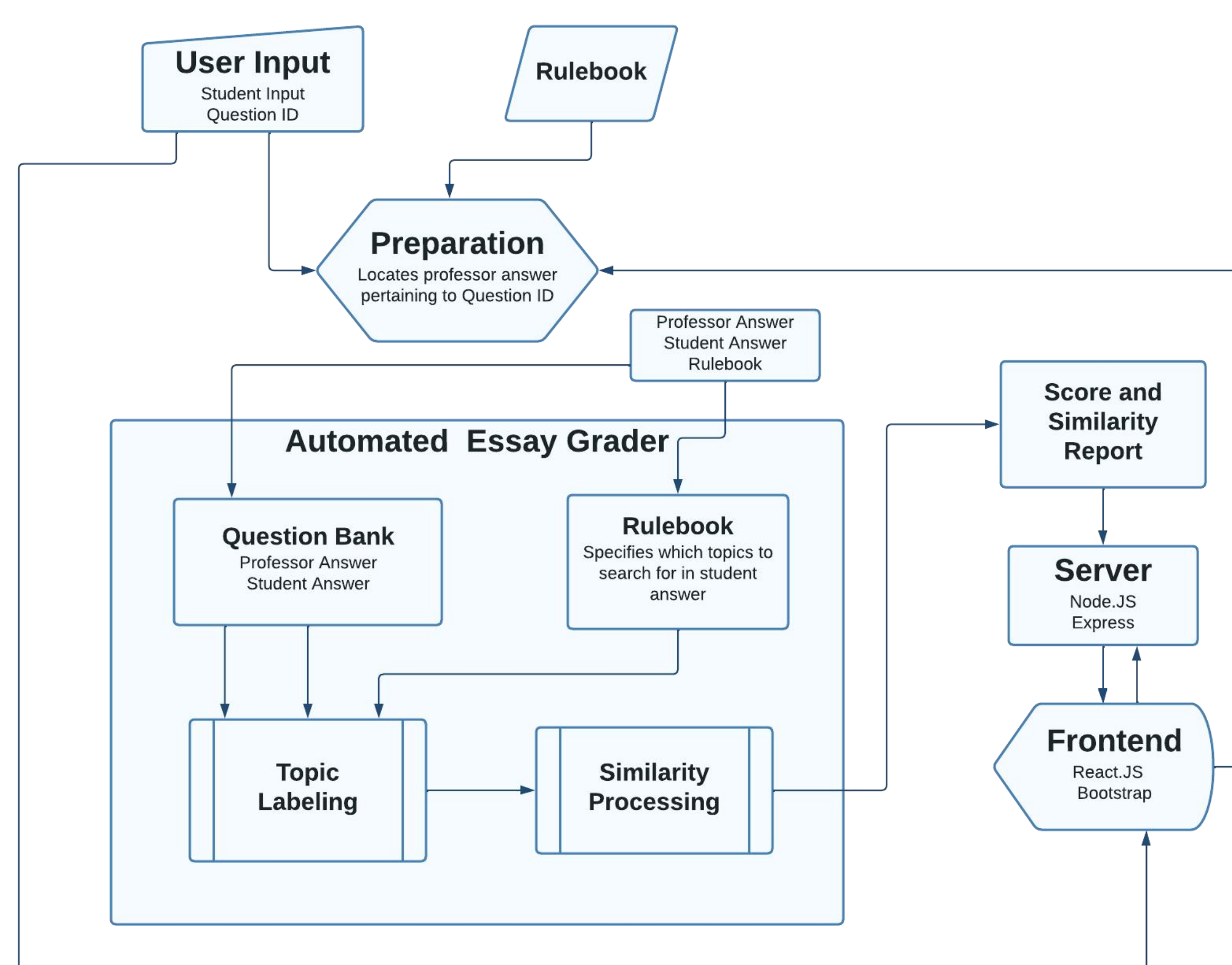
### CURRENT SYSTEM

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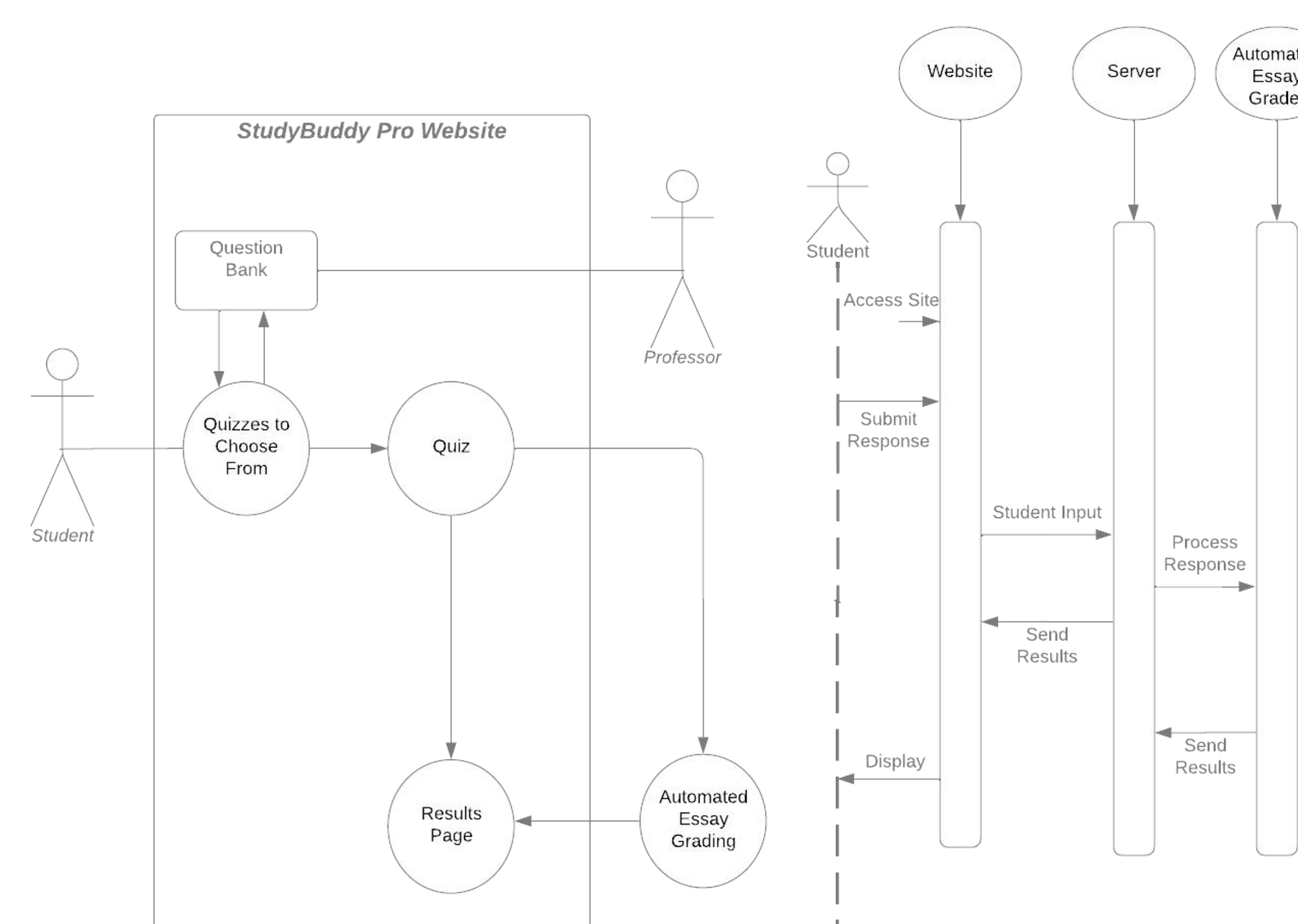
### REQUIREMENTS

- Create a question bank with essay questions for law students to practice
- Process student responses and give feedback on sections of the response, plus other scores.
- Display feedback on website in a meaningful way.

### SYSTEM DESIGN



### OBJECT DESIGN



### IMPLEMENTATION



### VERIFICATION

- Use synonyms to identify the topic in a student answer
- Compare the topics identified in the student answer to the specified rulebook for the given question.
- Checks grammar, spelling, and any errors in the response.

### SUMMARY

StudyBuddy Pro is a legal education platform that helps students succeed in law school by giving them access to resources and essay questions to practice. Students get scores based on how well they answer the questions and receive feedback related to topics in their answer as well as spelling and grammatical errors.

### REFERENCES

David Gray, CEO of StudyBuddy Pro supported this project by providing all necessary materials and data needed for this project.

### ACKNOWLEDGEMENT

The material presented in this poster is based upon the work supported by Mr. David Gray. We thank Mr. David Gray for his assistance and mentorship that we received throughout this process.