

Department of Computer Science & Engineering

UE17CS355 – Web Tech II Laboratory

Project Evaluation

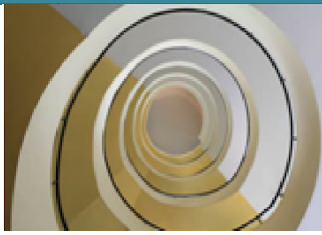
Project Title : Automatic Answer Evaluation

Project Team :

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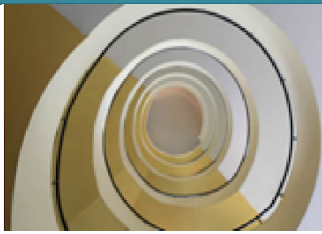
Project Description

The project is basically for the teachers to evaluate their students answers against the model answers automatically instead of manually correcting them using Natural Language Processing technique/algorithm.

It evaluates the students answer with that of the teachers answers and based on how close it is to the required answer it allocates marks for that answer to that particular student

Teachers can also view the results of all the students in the result page.

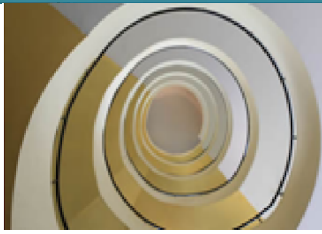




Technologies Used

Technologies Used :

- 1) Front-end -
 - i)HTML,CSS
 - ii)Bootstrap
 - iii)React Framework
- 2) Back-end -
 - i)Flask Framework
 - ii)MySQL Database
 - iii)AJAX
- 3)NLP python implementation



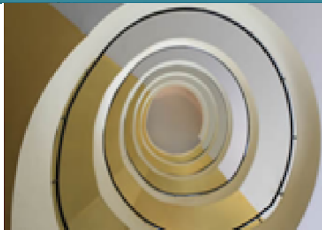
Techniques Implemented

Techniques Implemented :

We have implemented 2 Ajax Patterns : Submission Throttling and Multistage Download.

Submission Throttling is implemented while searching for the students name among a huge lot of students either to see the result or to modify them.

Multistage Download is implemented while reviewing the answers. Since there could be many answers for each student we download only 2 answers at a time and later download the remaining .



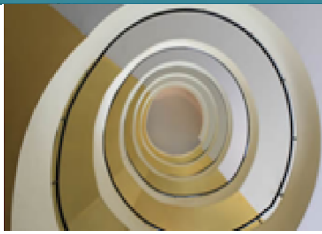
Intelligent Functionality

The intelligent functionality used in Automatic Answer Evaluation is NLP algorithm. We use NLP techniques to find a similarity score by comparing the model answer and the student answer. Two parameters are taken into consideration.

First is Ngrams which takes into consideration the repeated pattern of words and cosine similarity which finds out the similarity between two sentences by converting words into vectors.

Second is the percentage of common words between the two statements after processing the statements and removing common words in the english language (also known as stopwords).

These two scores are later combined and normalized based on the parameters of evaluation



Thank You

