



# Department of Computer Science & Engineering

## UE17CS355 – Web Tech II Laboratory

# Project Evaluation

Project Title : Automatic Answer Evaluation

Project Team :

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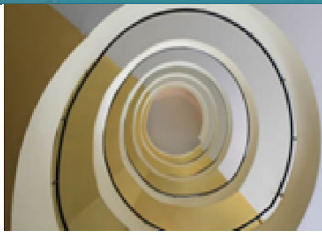
## Project Description

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 the students in terms of graphs and other data visualization aspects to get a better insight.





## 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 will be a lot of answers written by the student. We have used multistage download technique to provide those answers in batches.



## Intelligent Functionality

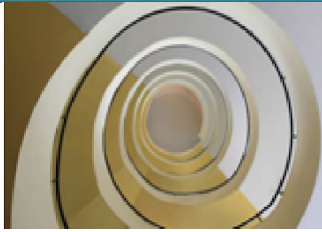
The intelligent functionality used in Automatic Answer Evaluation is NLP algorithm.

We use NLP techniques to find a similarity score between 0 to 1 by comparing the model answer and the student answer. The 2 parameters are taken into consideration.

One is Ngrams of length 3 which takes into consideration the repeated pattern of 3 words and Cosine similarity which finds out the similarity between 2 sentences by converting words into vectors.

Second is common words between the two statements after removing common words which are known as stopwords.





Thank You

