**ANSWERLY**

MEMBERS (GROUP NO. 22):

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MOTIVATION:

Manual answer evaluation is a very tedious task. Manual checking is a very time-consuming process and also requires lots of manpower. Also, paper checker is not able to give marks equally. So, our system will evaluate answers based on some keyword, and also manpower will be saved. Only one has to scan the paper then, based on the keyword in the answer the system will provide the marks to the question according to the dataset present. Also, with the help of this system, the evaluation error of the marks to the particular question will be reduced. This application will help various colleges, universities, coaching institutes to evaluate the answers in less time and with less manpower.

OBJECTIVES:

1. To create the data repository of questions and answers as a knowledge base.

2. To design a method to read answers and extract keywords or features from the answers.

3. To develop an approach to test intermediate answers generated with the knowledge base.

4. Allocate marks depending on comparison or testing.

5. Make the task of checking subjective answers easy.

ACTIVITIES INVOLVED:

1. User Registration/Login: Users must first create an account in the system by registering themselves and then can log in to the account to add questions in the system and their respective answers. The answers are stored as a base for reference for AI to use while checking answers.

2. Answer checking: The system checks the answer by matching the keywords in the original and user's answer. The other factors are the number of sentences or points that the user has written.

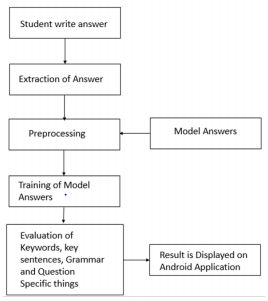
3. Answer marks allocation: The marking criteria is decided by the admin and stored in the system for reference. AI uses these references and allots respective marks to the user.

KEY FEATURES OF THE APPLICATION:

* The application will split the answer using **OCR** (Optical Character Recognition).
* The application will take the image as input and will evaluate the answer based on the length of the answer and important keywords covered which are specified by the teacher with each answer which is to be evaluated.
* The two main algorithms to be used are-

1. Keyword search algorithm – A search algorithm is an algorithm that retrieves the information stored within some data structure. A data structure can include a linked list, array, search tree, hash table, or various other storage methods. The appropriate search algorithm often depends on the data structure being searched.
2. Stemming Algorithm - Stemming refers to the process of removing affixes (prefixes and suffixes) from words. In the information retrieval context, stemming is used to conflate words to avoid mismatches that may undermine recall. As a simple example consider searching for a document entitled "How to write" if the user issues the query “writing” there will be no match with the title .however if the query is stemmed so that “writing” becomes ”write” then retrieval will be successful. Stemming is the process of finding the root word.

WORKFLOW DIAGRAM:



CONCLUSION:

Examinations play a very important role in colleges, universities, and various other educational institutes. Many educational institutes have their examinations conducted online. But these exams only contains multiple-choice questions which are providing to be very efficient in testing the student's aptitude, on the other hand, fail to measure the conceptual knowledge a student or learner must possess. Therefore subjective answers must be included in online examinations. The proposed system evaluates the answer based on the keywords. By comparing the standard answer and the student's answer marks are obtained if the student utilizes all the keywords mentioned in the standard answer. Hence the said system could be of great utility to the educators whenever they need to take a quick test for revision purposes, as it saves them the trouble of evaluating the bundle of papers.