Software Requirements Specification Documents

Team Number	Team 33
Project Title	Framework for Automated Student Assessment using NLP - Audio
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Brief problem statement

This application is for students to improve their skills by ongoing day-to-day assessment and being supervised by an experienced teacher. Doing this physically is time-consuming and is an administrative burden.

The current work proposes to automate the test taking/grading process by using the audio of the student-teacher interactions during class, to perform this assessment. The work shall start with a limited set of known questions with clear answers in the form of multiple choices or True/False. Based on progress of work, exploration into use of semantic matching for allowing rephrasing of the questions by the teacher may be carried out.

To summarise main features of this application are:
- Automate the student assessment based on the student-teacher interactions during class.
- Start with basic MCQ's and True/False questions and further expand the work to long answer questions.

Profile of Users

The UI developed is meant only for demonstrative purposes only, hence has one end-user with a specific use case - the dev team to demo to an audience. As such the user must be capable of using the system by providing input audio and receiving output evaluation, through a clean self-explanatory UI.

User:
- Have access to internet.
- Need privacy of the assessment done.

Project Modules
- User Management
  - Recognise the question teacher asked during the class interaction.
  - Take input audio.
  - Display feedback of the candidate.
- ASR Module
  - Conversion of user audio into text.
  - We also identify which user is speaking in the audio file.
- Evaluation Module
  - Find the corresponding answer of the posted question.
  - Evaluate based on the scheme and produce the score.