A PERSONAL TRAINER APP TO SELF-TRAIN AND IMPROVE PRESENTATION SKILLS

21_22-J 02

PRESENTLY

OUR TEAM

Dr. Shyam Mehraaj
Supervisor

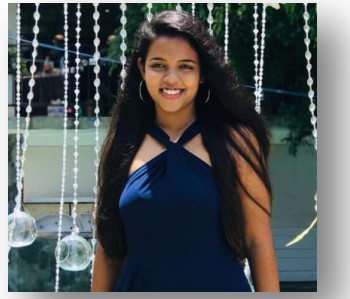
Ms. Samanthi Siriwardene
Co-Supervisor

Ms. Veerandi Kulasekara
External Supervisor

IT18205152
Shehara A.K.G.H.

IT18229912
Wanigasinghe N.T.

IT18227750
Wandana R.A.K.



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Wedage C.V.

INTRODUCTION

- The goal of doing a presentation is to attract the attention of the audience through a good delivery.

- A good presentation should be written and delivered in error-free and comprehensible English, and the presenter should look well-prepared and rehearsed.

INTRODUCTION CONT.

- People are accustomed to practicing presentations beforehand, preferably with a friend, roommate, or teammate who will listen.

- The proposed system “Presently” will self-evaluate the presentation skills of an individual.

Is there a mechanism in place to evaluate presentation skills in advance?

RESEARCH PROBLEM

- Audio analyzing - **Pronunciation & vocabulary errors**
- Audio analyzing - **Mis match & match of topic tone**
- Video analyzing - **Emotion Detection**
- Content analyzing - **Slide quality**

MAIN OBJECTIVE

To develop a Mobile Responsive Web Application to evaluate the presentation skills.

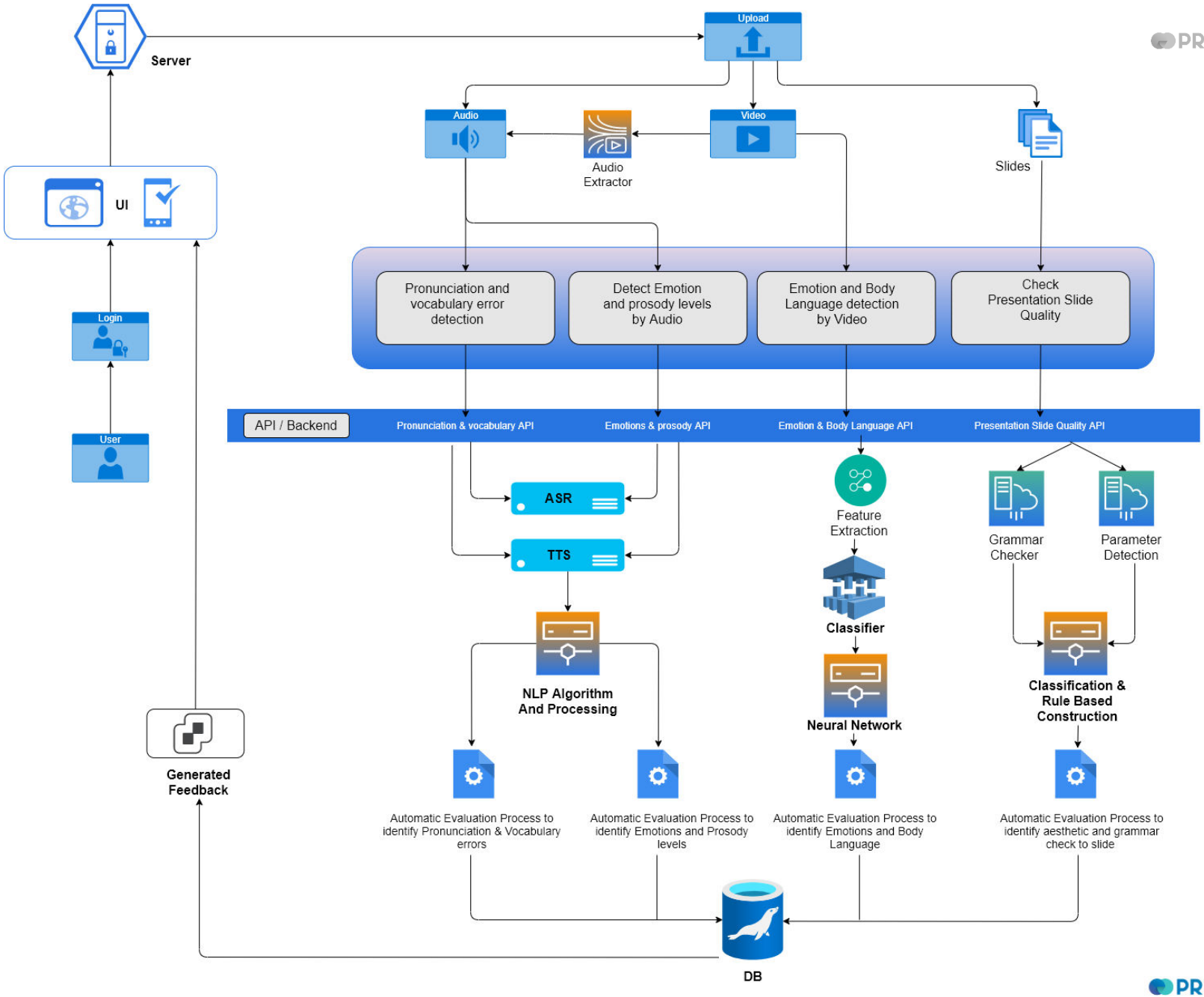
SUB OBJECTIVES

- To provide a user with incorrect pronunciation and vocabulary mistakes and to detect the user what emotions and enhancements used to present the story.
- To detect user, the match or mismatch between topic tone and emotions used to present the story.
- To check the grammar and spellings in presentation slides
- To suggest the user how to attract audience effectively by analyzing slides for accuracy of content and aesthetics using computer vision and rules of design-best-practices.

METHODOLOGY

- The user can upload the recorded video or audio and the presentation slides.
- The system will extract the audio file and will analyze them separately.
- Using the extracted audio file, system will check for any vocabulary and pronunciations errors.
- The system will check for match and mismatch between the topic tone.
- Using the extracted video file, system will check the emotions and the body language of the speaker.
- With the uploaded slides the system will analyze the accuracy of content and aesthetics.

SYSTEM OVERVIEW



IT18205152 | Shehara A.K.G.H

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Provide incorrect pronunciation and vocabulary mistakes

BACKGROUND

- Rehearse before the presentation.
- For effective communication, everyone should have a good vocabulary & correct pronunciation

RESEARCH QUESTION

- Identifying possible pronunciation issues that could arise throughout the presentation
- Evaluation of grammatical mistakes in enhancing the audience's understanding of the presentation

OBJECTIVES

- Detection of the pronunciation mistakes that will occur during the presentation.

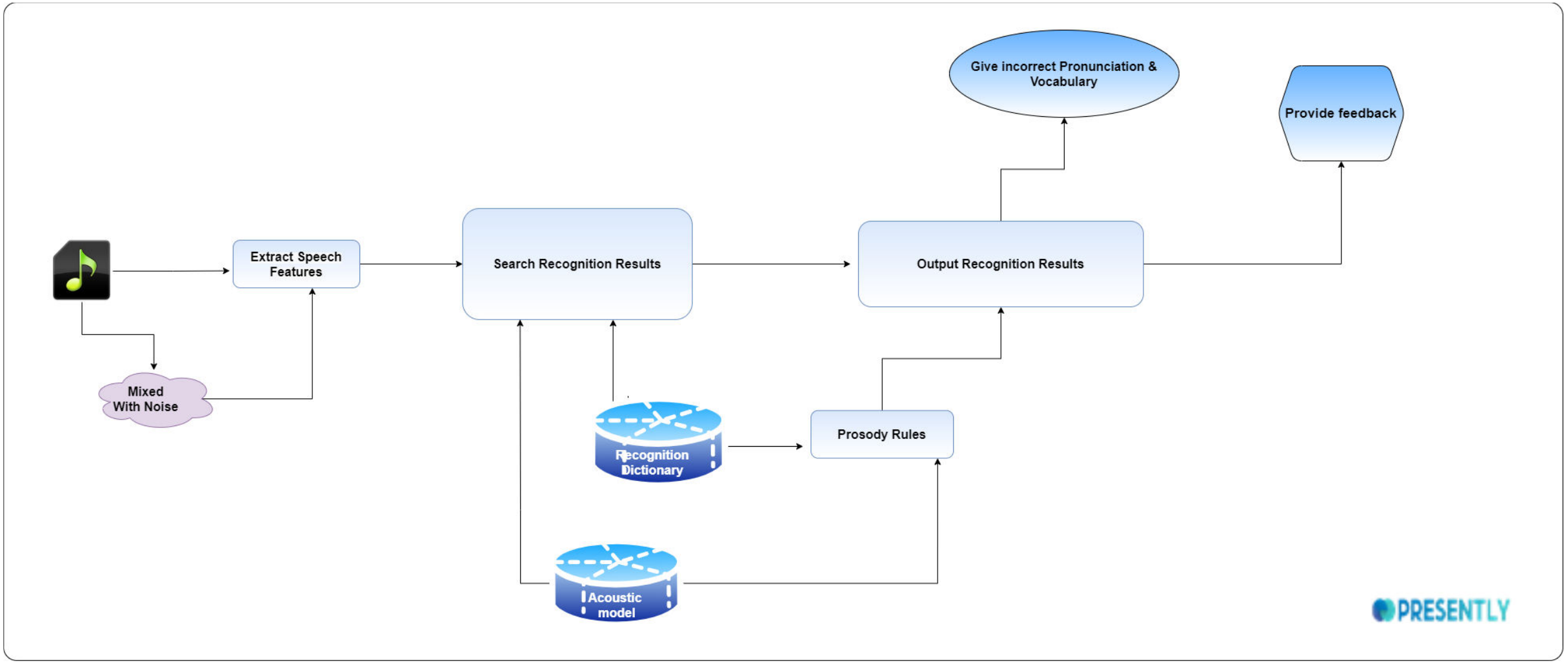
- Analyzation of vocabulary errors to make the presentation more accurate to the audience.

RESEARCH GAP

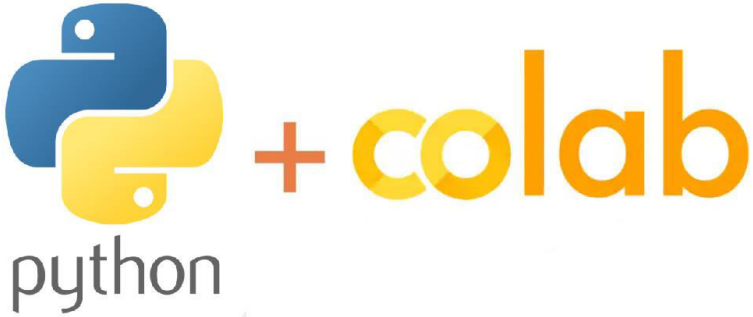
	Murmuring Sound Detection	Pronunciation Level detection	Teach to pronounce	Vocabulary mistake detection	Personalized system
PRESENTLY	√	√	√	√	√
A development of EFL presentation skills [1]		√			
Developing research presentation skills [2]		√			
Developing oral presentation skills [3]		√			
Improving English Pronunciation[4]		√	√		
Speech Coach [5]	√	√			√
A detailed survey on large vocabulary[6]				√	
Automatic Correction System [7]	√	√			
Frequency based spell checking and rule-based grammar checking [8]		√		√	
An efficient system for grammatical error correction on mobile devices [9]				√	√
A precise evaluation method of prosodic quality of non-native speakers [10]		√			
Speech Processing for Language Learning [11]		√	√		
A Context-Sensitive Real-Time Spell Checker [12]	√	√			
An empirical evaluation of the English File Pronunciation app [13]		√	√		√
Adaptation of speech recognition vocabularies [14]	√			√	

RESEARCH METHODOLOGY

SYSTEM DIAGRAM



TOOLS & TECHNOLOGIES



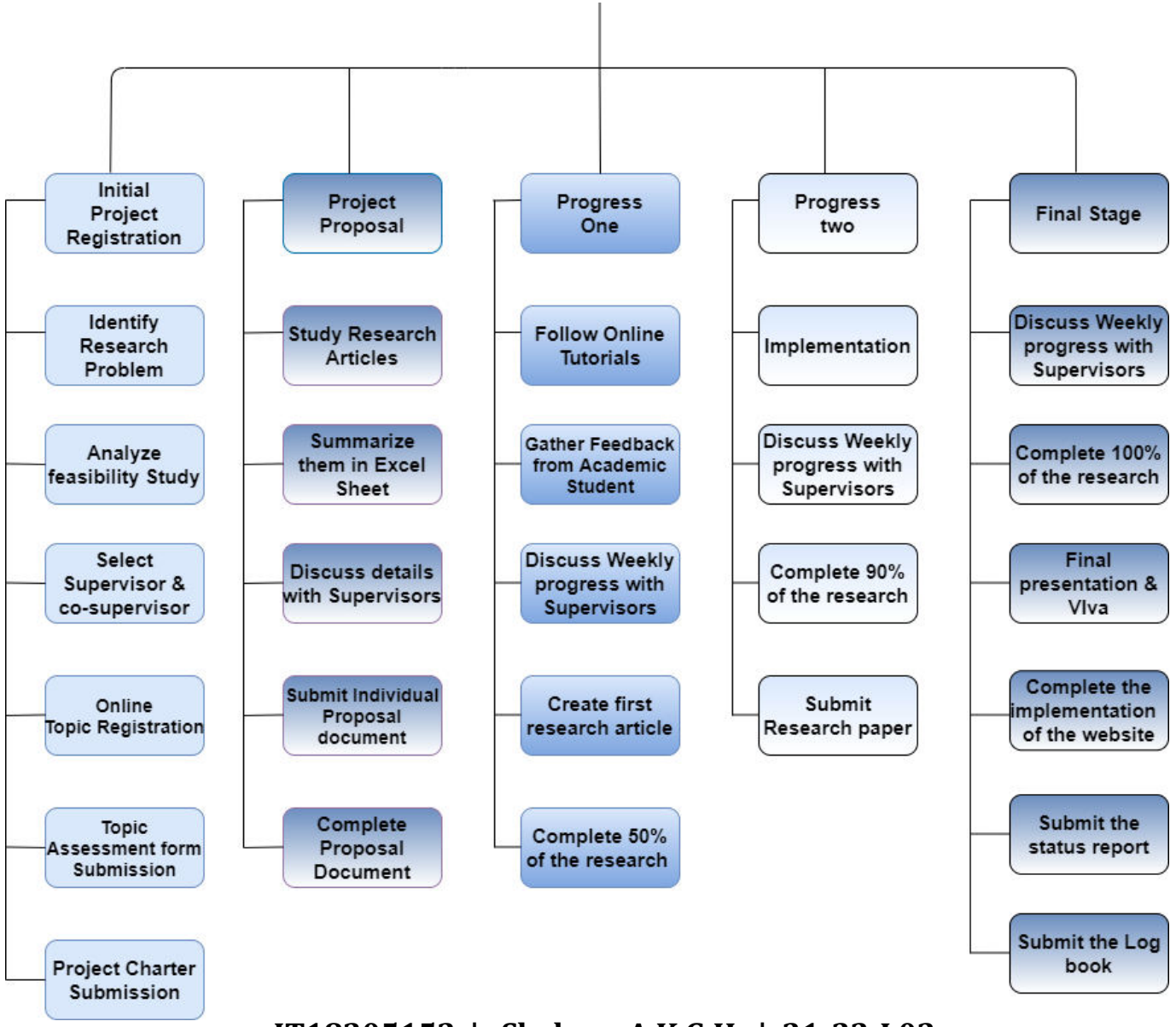
FUNCTIONAL REQUIREMENTS

- ✓ The system will check for pronunciation and vocabulary issues using the audio file.
- ✓ The system will provide feedback on the presenter's pronunciation and vocabulary errors.

NON-FUNCTIONAL REQUIREMENTS

- ✓ Performance
- ✓ Correctness
- ✓ Availability

WORK BREAKDOWN CHART



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IT18229912 | Wanigasinghe N.T

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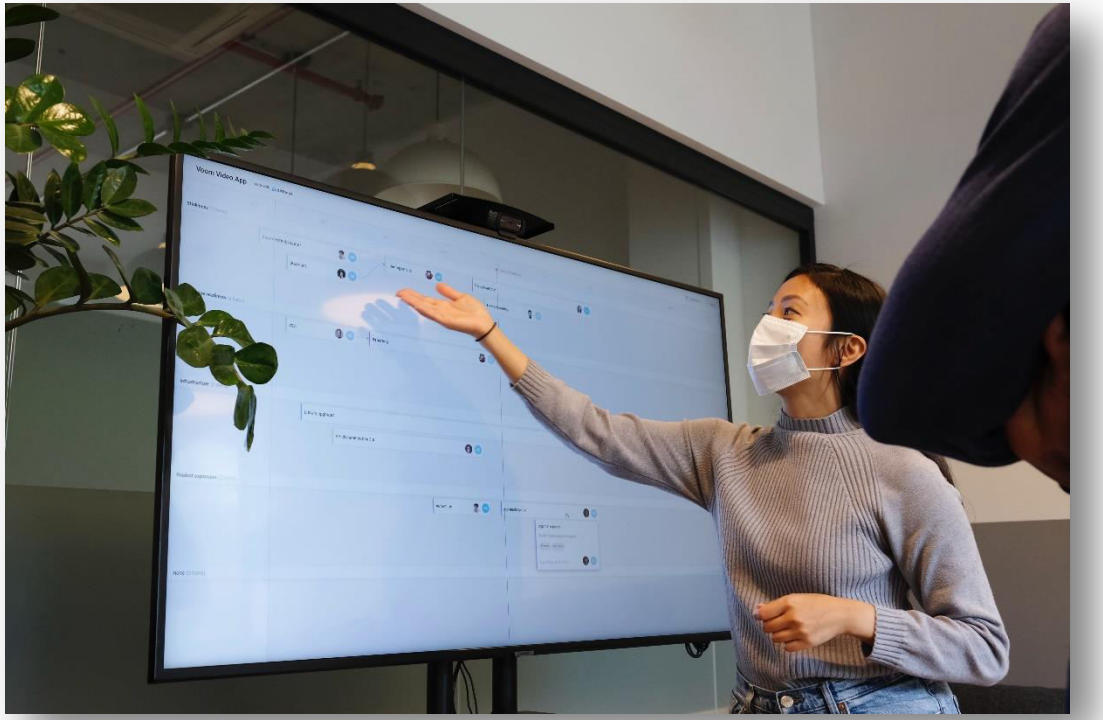
Suggest the match or mismatch between topic tone and emotions

BACKGROUND

- Should maintain tone, pitch and emotions controlled.
- Performs the emotions and prosody naturalness of the presenter.



RESEARCH QUESTION

- Inability of finding the match and mis match between the tone of the speaker.
- Void of a system to detect the emotions during the presentation.

OBJECTIVES

- Implement more accurate and intelligent application to identify presenters' emotion and prosody levels.

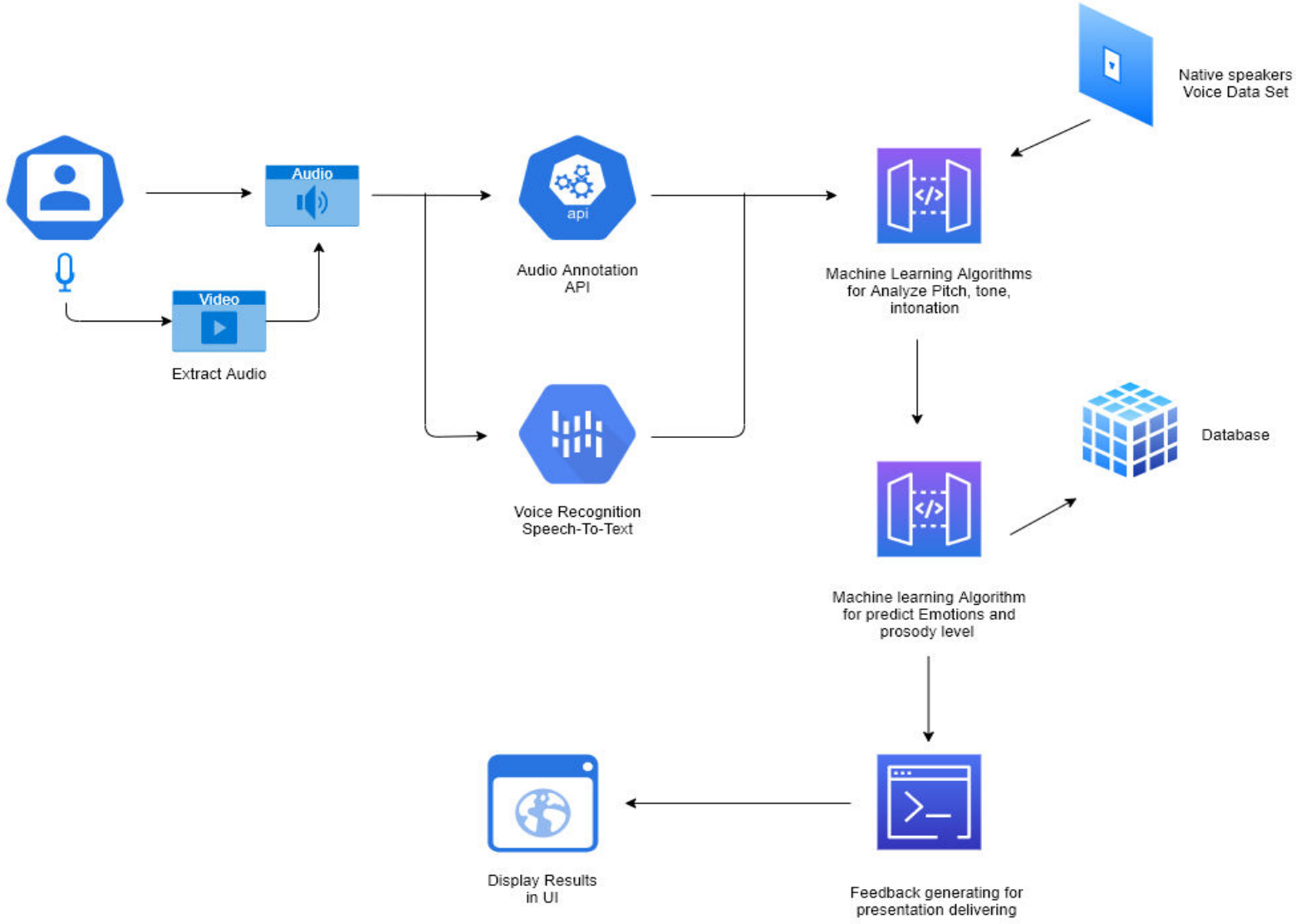
- Analyse the match or mismatch between topic tone and emotions used to present the story.

RESEARCH GAP

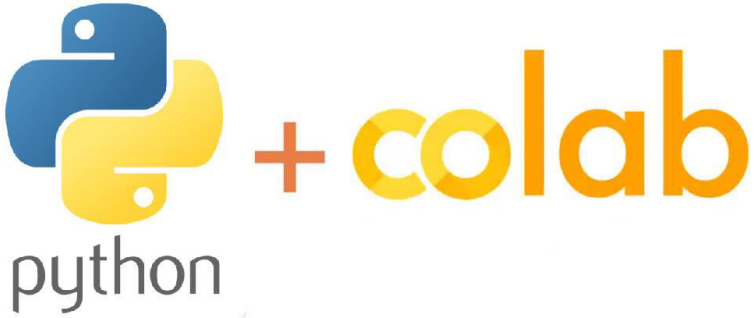
	Emotion detection using Audio	Prosody detection using Audio	Fluency, murmuring sound detection	Personalized system
Prosody Features from Normal and Stressed Regions for Emotion Recognition [3]		✓		
Narrow-focus word-stress in speech synthesis [9]		✓		
Prosody transplantation for TTS: Unit granularity, context, and prosody styles [13]		✓		
Speech Emotion Recognition Using Deep Learning on audio recordings [14]	✓			
Speech Emotion Recognition Based on Deep Learning and Kernel Nonlinear PSVM [11]	✓			
Application of prosody modification for Speech Recognition [5]		✓		
Emotional prosody analysis on human voices [4]	✓			
PRESENTLY	✓	✓	✓	✓

RESEARCH METHODOLOGY

SYSTEM DIAGRAM



TOOLS & TECHNOLOGIES



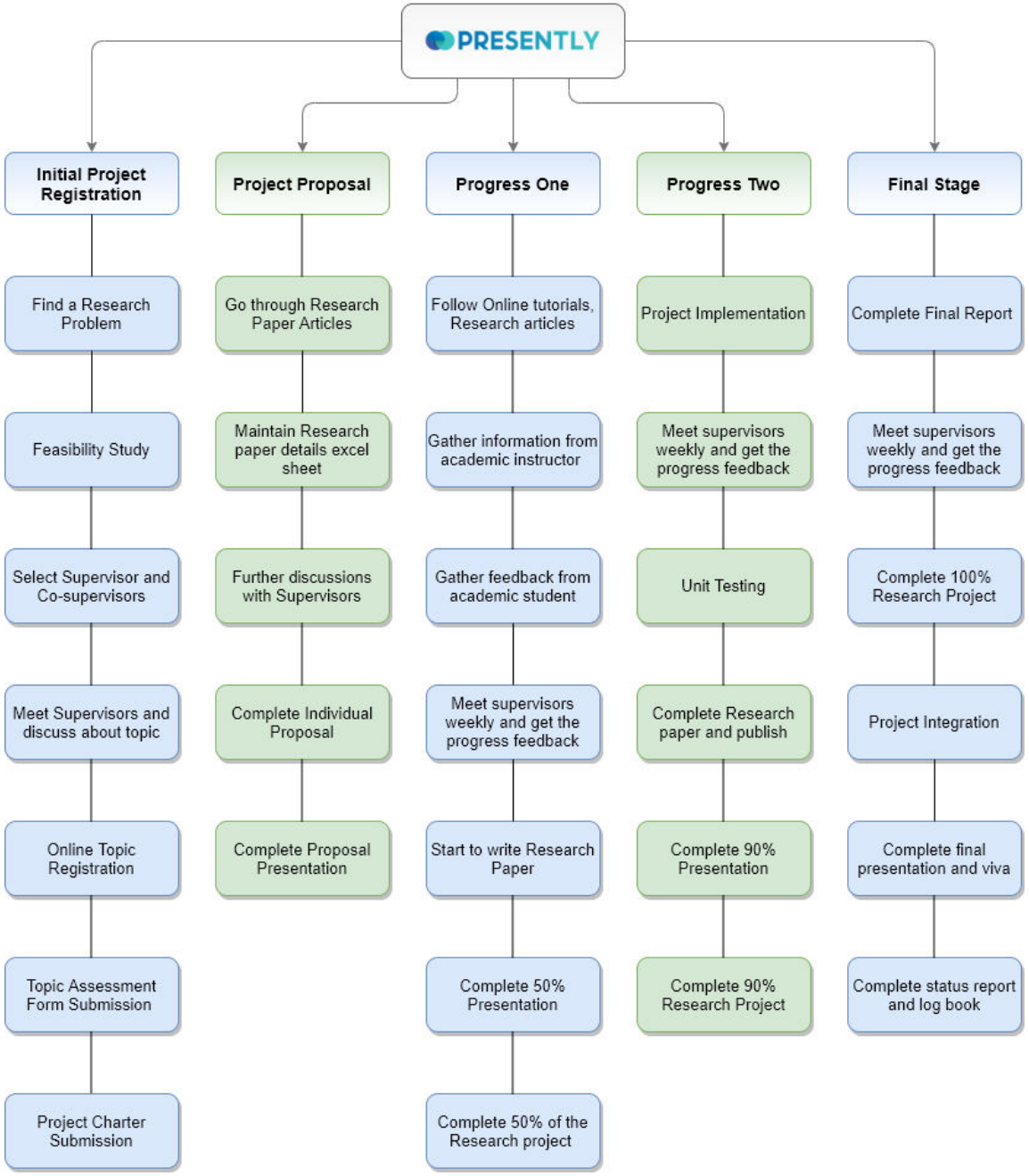
FUNCTIONAL REQUIREMENTS

- ✓ Using the audio analysis system will provide the tonality and prosody errors.

NON-FUNCTIONAL REQUIREMENTS

- ✓ Performance
- ✓ Correctness
- ✓ Availability

WORK BREAKDOWN CHART



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IT18227750 | Wandana R.A.K

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Suggest the user what emotions and enhancements used to present the story

BACKGROUND

- Emotions, body language, eye contact, maintaining a confident posture is important.
- Speakers need to engage more with the audience and be confident during the presentation.

RESEARCH QUESTION

Inability to self-evaluate presenting emotions and body language postures due to a lack of an appropriate method or instrument.

OBJECTIVES

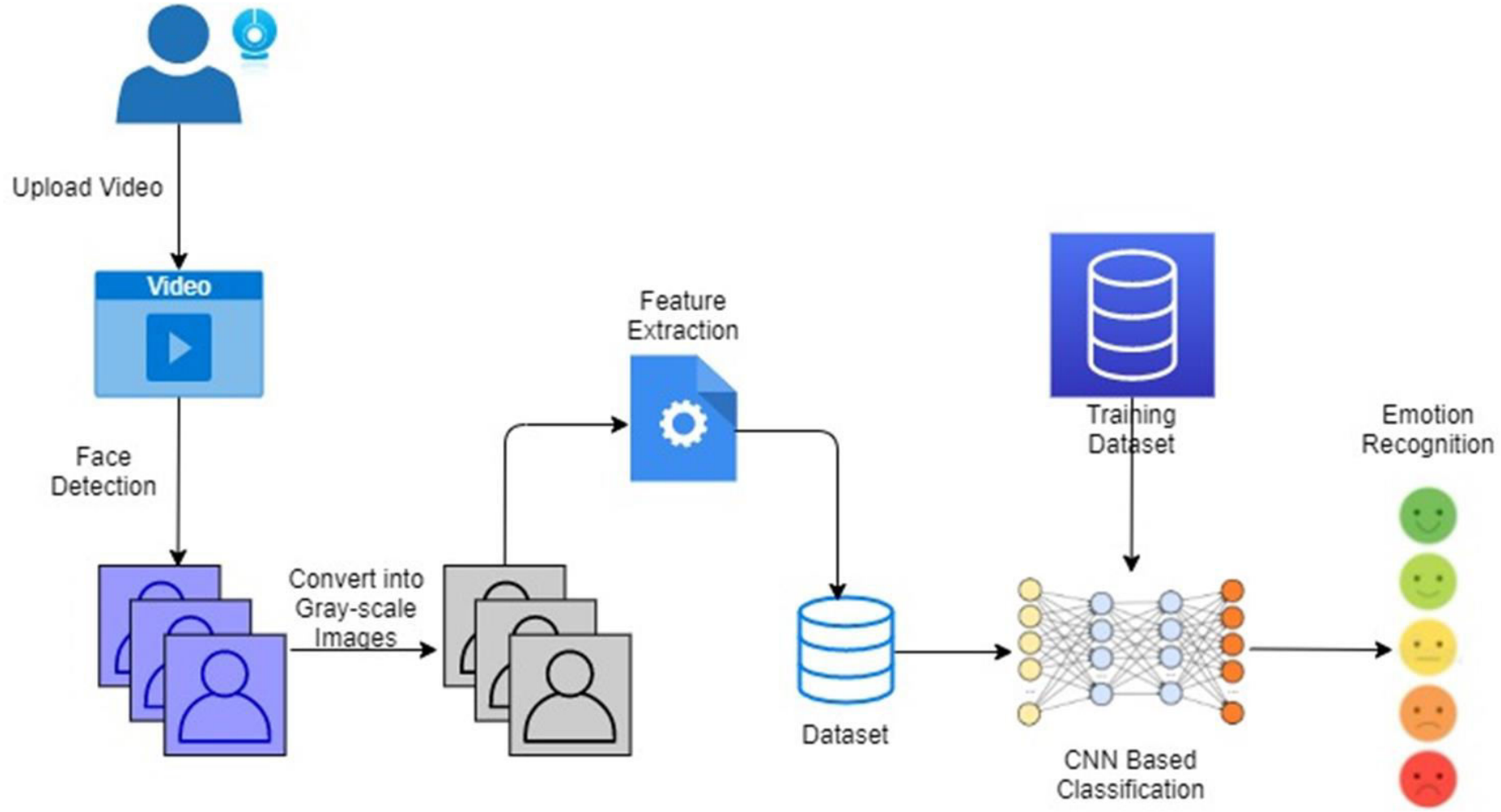
- To correctly extract the related emotions and body language postures.
- Check whether the emotions and body language are presentation related.

RESEARCH GAP

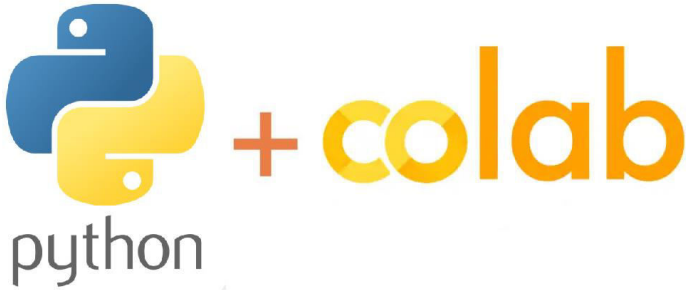
Features	EmoCo [1]	Facial Expression Recognition of Instructor [8]	Emotions in software practice: presentation vs. coding [9]	Multimodal based Emotion Recognition challenge [10]	PRESENTLY
Happy	√	√	√	X	√
Sad	√	X	√	X	√
Anger	√	X	√	X	√
Surprise	√	√	√	X	√
Fear	√	X	√	X	√
Confidence	X	√	X	X	√
Neutral	√	√	X	X	√
Nervousness	X	X	X	X	√
Body Language	X	X	X	√	√
Providing Feedbacks	X	X	X	X	√
Mobile Responsive Application	X	X	X	X	√

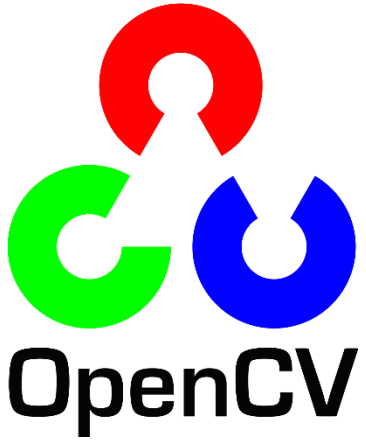
RESEARCH METHODOLOGY

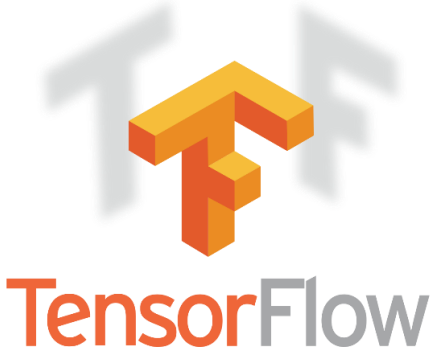
SYSTEM DIAGRAM



TOOLS & TECHNOLOGIES







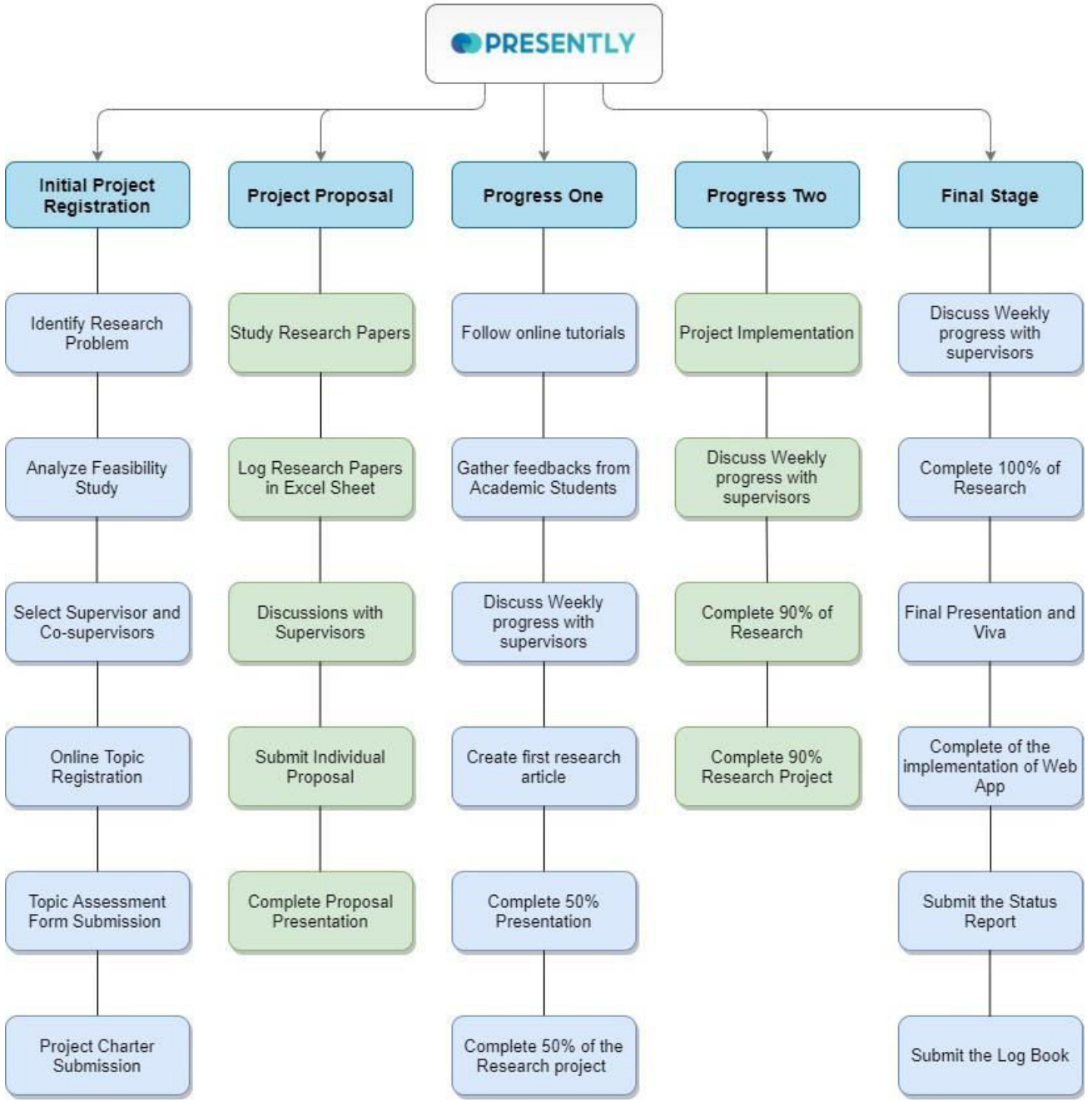
FUNCTIONAL REQUIREMENTS

- ✓ System will extract features from the uploaded video.
- ✓ Using video analysis system will detect presenters' emotions and body gestures.

NON-FUNCTIONAL REQUIREMENTS

- ✓ Performance
- ✓ Correctness
- ✓ Availability

WORK BREAKDOWN CHART



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IT17535090 | Wedage C.V

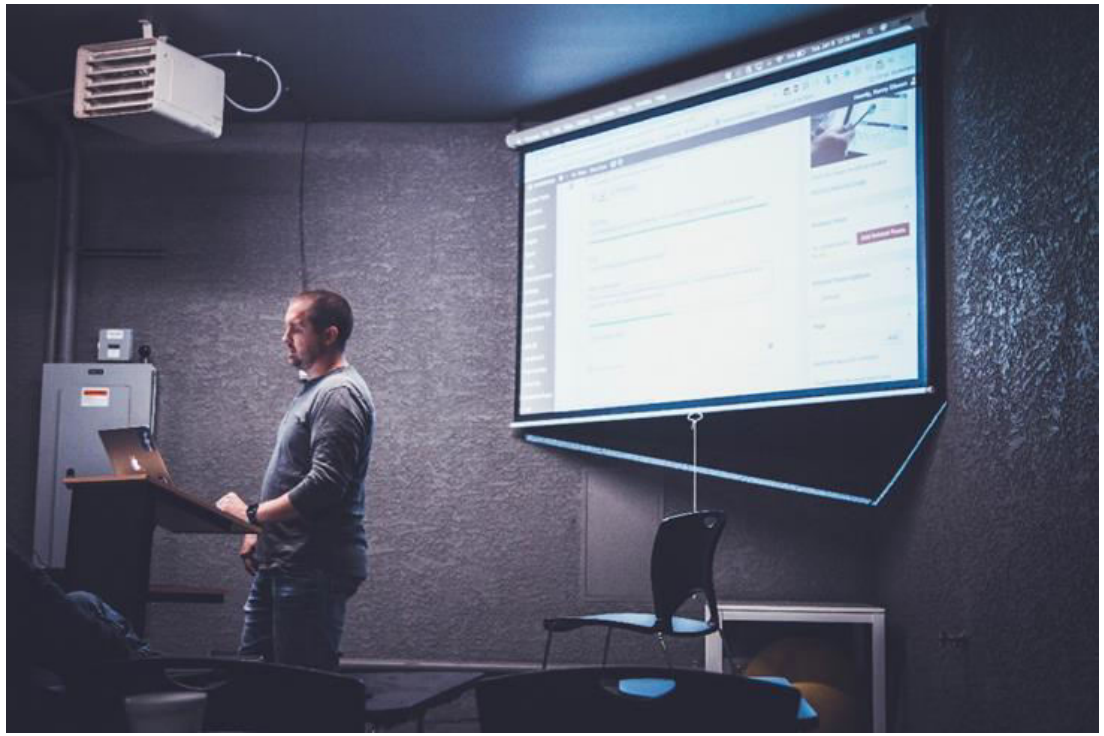
Specializing in Data Science

Suggest the user how to attract audience effectively by analyzing slides for accuracy of content and aesthetics

BACKGROUND

- Slides keep an audience's attention during a presentation to provide additional supporting.

- Checking the aesthetic quality of the slides and create textual error free quality slide.



RESEARCH QUESTION

- To create self-train web application to cater personal coach to check presentation slide quality by analyzing input pptx.

- Detect mistakes by Checking the accuracy of the content using grammar checker.

OBJECTIVES

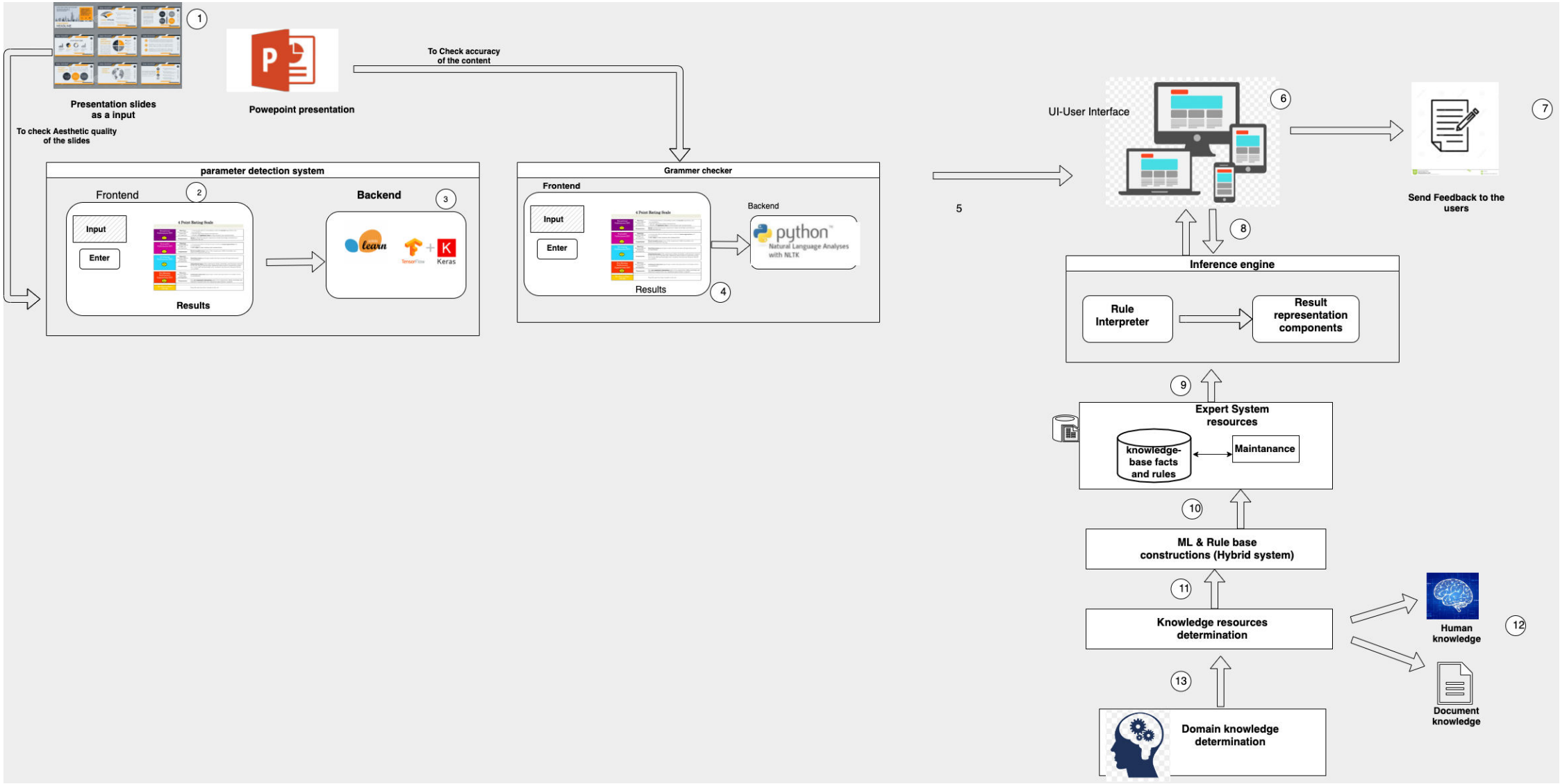
- Do the proofreading and check the presentation slides accuracy.
- Aesthetic-aware slides to image synthesis.
- As optional check the relevancy of the presentation topic with the content of the slides.

RESEARCH GAP

Features	PRESENTLY	Feature Fusion Method for Computing IAQ. [21]	IAA based on image classification [22]	Real time spellchecker [23]	Online grammar-checker [24]
1. Brightness and Sharpness.	✓	✓	✓	×	×
2. Color harmony/Color factors.	✓	✓	✓	×	×
3. Motion Blur & shallow depth field.	✓	✓	×	×	×
4. Rule of third.	✓	✓	×	×	×
5. Spacy tokenization	✓	×	×	✓	✓
6. Spellchecker & error detection.	✓	×	×	✓	✓
7. BPE segmentation.	✓	✓	×	×	×
8.Ability to add new parameters in future.	✓	×	×	×	✓
9. Contain a classification/rule-based system with a knowledge-based system.	✓	×	×	×	×
10. Notify about the quality as a percentage using frontend.	✓	×	×	×	×
11.For Web Applications.	✓	×	×	✓	✓
12.Fully automated system.	✓	✓	✓	✓	✓

RESEARCH METHODOLOGY

SYSTEM DIAGRAM



TOOLS & TECHNOLOGIES

Keras

python + colab

Natural Language Analysis with Python NLTK

TensorFlow

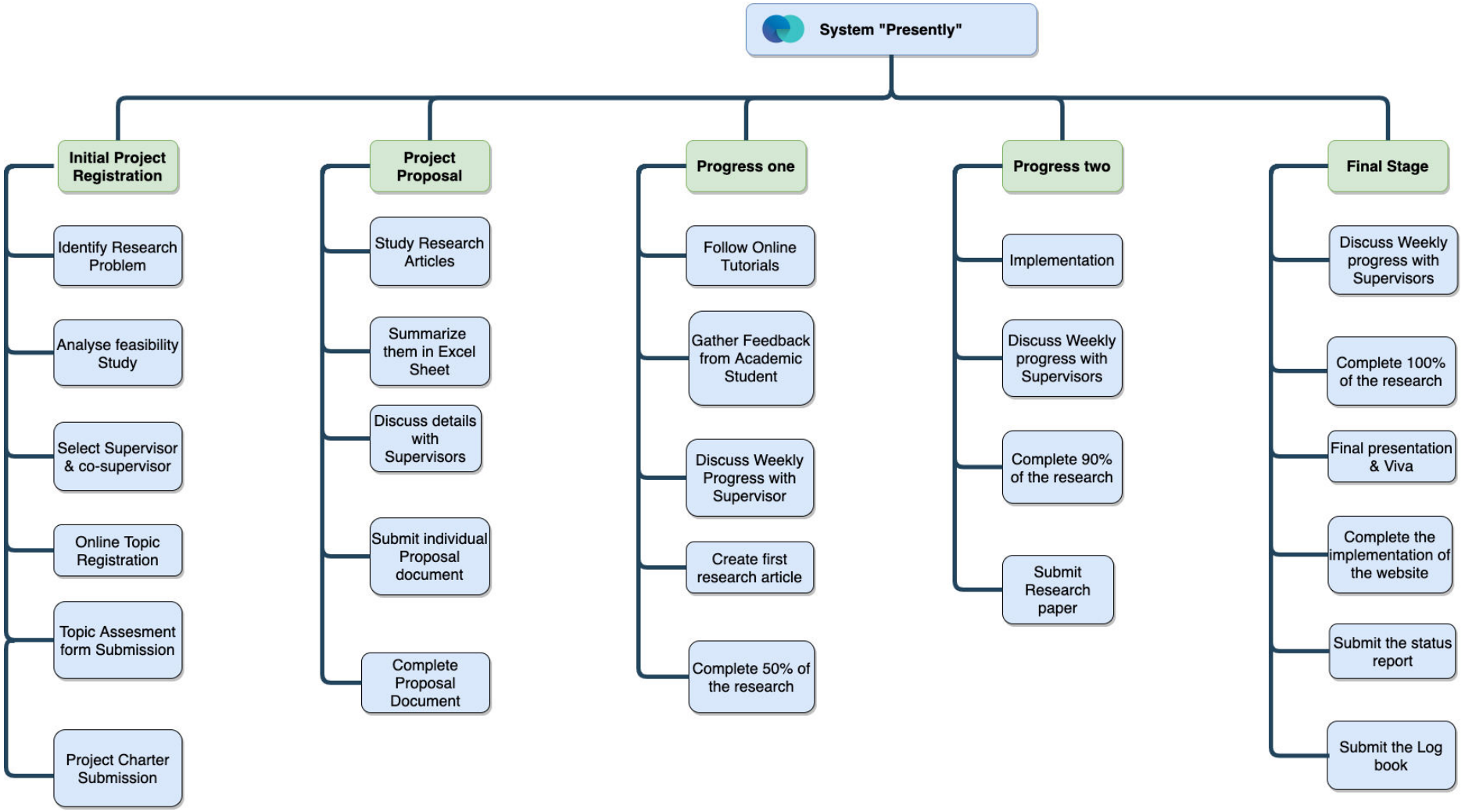
FUNCTIONAL REQUIREMENTS

- ✓ Obtain a presentation slide to get aesthetic analysis.
- ✓ Received final feedback (output) for the uploaded presentation and slides.

NON-FUNCTIONAL REQUIREMENTS

- ✓ Performance
- ✓ Correctness
- ✓ Availability

WORK BREAKDOWN CHART



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Gantt chart

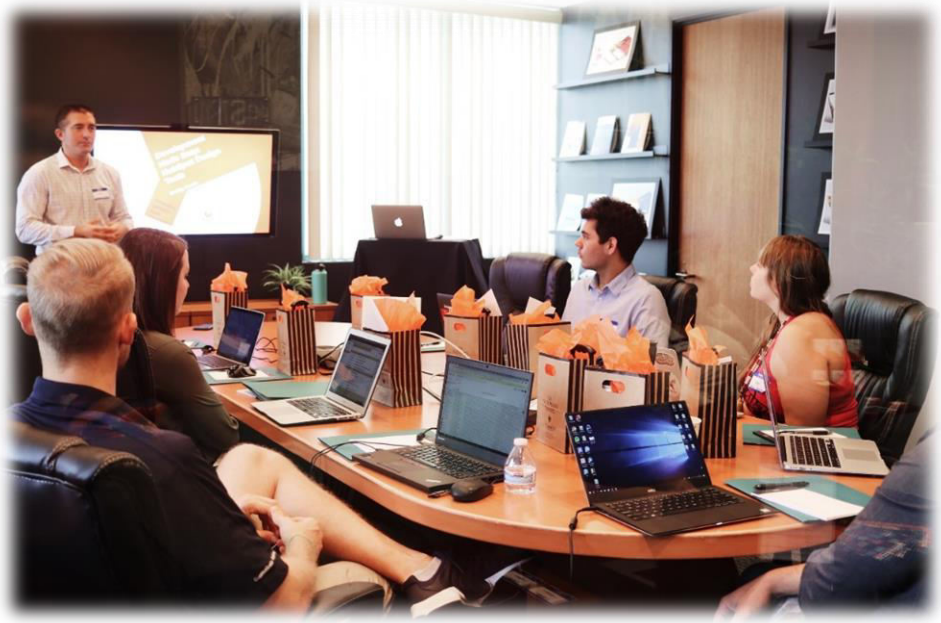
No	Assessment / Milestone	Start Date	End Date	2021-2022													
				April	May	June	July	August	September	October	November	December	January	February	March	April	May
1	**Project discussion workshop**	23-Apr-21	23-Apr-21														
2	**Topic evaluation**	15-May-21	30-Jul-21														
2a	Select a topic	15-May-21	20-May-20														
2b	Select a supervisor	20-May-21	23-May-21														
2c	Topic Evaluation form submission	23-May-21	25-Jun-21														
2d	Project charter submission	20-Jun-21	30-Jul-21														
3	**Project proposal report**	15-Jun-21	10-Aug-21														
3a	Create Project Proposal - individual	15-Jun-21	15-Jul-21														
3b	Create Project Proposal - group	15-Jul-21	06-Aug-21														
3c	Project proposal presentation	01-Aug-21	10-Aug-21														
4	**Develop the system**	06-Aug-21	20-Feb-22														
4a	Identifying functions	06-Aug-21	20-Aug-21														
4b	Database designing	20-Aug-21	12-Sep-21														
4c	Implementation	12-Sep-21	30-Dec-21														
4d	Unit testing	01-Jan-22	30-Jan-22														
4e	Integration testing	30-Jan-22	20-Feb-22														
5	**Progress Presentation - I**	01-Jan-22	06-Jan-22														
5a	Project Status document	01-Jan-22	06-Jan-22														
5b	Create presentation document	01-Jan-22	06-Jan-22														
5c	Progress Presentation – I (50%)	06-Jan-22	06-Jan-22														
6	**Research Paper**	18-Oct-21	18-Mar-22														
6a	Create the Research Paper	18-Oct-21	18-Mar-22														
7	**Progress Presentation - II**	22-Mar-22	29-Apr-22														
7a	Create presentation document	22-Mar-22	29-Apr-22														
7b	Progress presentation – II (90%)	29-Apr-22	29-Apr-22														
8	**Final Report Submission**	14-Apr-22	14-May-22														
8a	Final Report Submission	14-Apr-22	14-May-22														
8b	Application assessment	01-May-22	14-May-22														
8c	Project status document	14-May-22	14-May-22														
8d	Student logbook	14-May-22	14-May-22														
9	**Final Presentation & Viva**	14-Apr-22	25-May-22														
9a	Create final presentation	01-May-22	25-May-22														
9b	Final report submission	25-May-22	25-May-22														

COMMERCIALIZATION

- **Target Audience**
  Employees in any industry
  University Students and lecturers

- **Free Application**
  Free Access to the application

- **Advertisement**



1
Stage
Free

2
Stage
Advertisement Fee

BUDGET

Component	Amount (Rs.)
Internet	3000.00
Stationery	2000.00
Documentation and printing cost	5000.00
Server cost	4000.00
Educational survey cost (online payments)	1000.00
Electricity	1000.00
Transport	2500.00
Total	17500.00

Thank You !

Team

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