“PRESENTLY” – A PERSONAL TRAINER APP TO SELF-TRAIN AND IMPROVE PRESENTATION SKILLS

2021_22-02

Project Proposal Report

Wedage C.V

B.Sc. (Hons) Degree in Information Technology.

Department of Information Technology

Sri Lanka Institute of Information Technology
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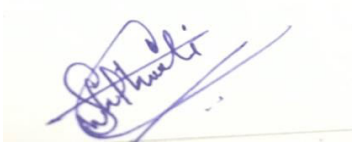
DECLARATION OF THE CANDIDATE & SUPERVISOR

I declare that this is my work, and this proposal does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any other university or institute of higher learning and to the best of our knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgment is made in the text.

Name	Student ID	Signature
Wedage C.V	IT17535090	

The above candidates are carrying out research for the undergraduate Dissertation under my supervision.

Signature of the supervisor Date

ACKNOWLEDGMENT

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I am also deeply thankful to my informants. I want to acknowledge and appreciate their help and transparency during my research. Their information has helped me complete this proposal.

Finally, I would like to express my gratitude to all the people who help me by providing their valuable assistance and time during this research.

ABSTRACT

Presentations are typically demonstrations, introductions, or a speech to inform, persuade, motivate, or present new ideas or products. This usually requires a good speech delivery effective result. The single most effective thing to make the presentation successful is to practice it beforehand. The goal of doing a presentation is to attract the attention of the audience through a good delivery and that interaction helps to create a sense in the community. People are accustomed to practicing presentations beforehand, preferably with a friend, roommate, or teammate who will listen, take notes, and offer suggestions and feedback afterward, and time taken to do the presentations. I propose a solution based on Natural Language Processing and Computer Vision techniques to cater to the requirement for the user to do a presentation beforehand using a mobile responsive web application. IAA to check the slide quality as an image using Image Aesthetic Assessment. The proposed system will assist anyone who needed to practice a presentation beforehand by checking presentation quality (self-train application). Overall, the system will give a rating and feedback to the presenter about the performance before they go into the actual presentation.

Keywords: Image Aesthetic Assessment, Natural Language Processing, Computer Vision, Self-train, Presentation

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1 INTRODUCTION

1.1 Background & Literature Survey

A slide is a single screen of a presentation, and every presentation is composed of several slides. Slides keep an audience's attention during a presentation and provide additional supporting information in textual or graphic format. When considering live presentations, Presenter should be able to do the presentation in an attractive manner, it should be interesting and motivate audience to watch. Common presentation mistakes include not preparing properly, delivering inappropriate content, and speaking poorly. To avoid delivering inappropriate content via slides, there's a rule called 10 20 30 rule of PowerPoint, presentation should have 10 slides, last no more than 20 minutes, and contain no font smaller than 30 points (reference: The 10/20/30 Rule of PowerPoint Presentations posted by Bob Mills). To make more sense to the audience the presentation is about, the slides should be more attractive. This will help to maximize the productivity and performance of the presenter during the presentation. In that case (IAA) image aesthetic assessment will help to identify image aesthetics and improve the quality of the presentation slides.

Every presenter knows that simplicity is a virtue that wins business and academic presentations. But when it comes to presentation slides, they make the message difficult to understand by others. The following image describes the average presentation design skills such as audience satisfaction, design layout, font, time spend to make presentations, brand colours etc.

When it comes to the content of the slide grammar and spellings has major role to play. To check whether the content is error free will implement using Grammatical Error Correction (GEC) system.

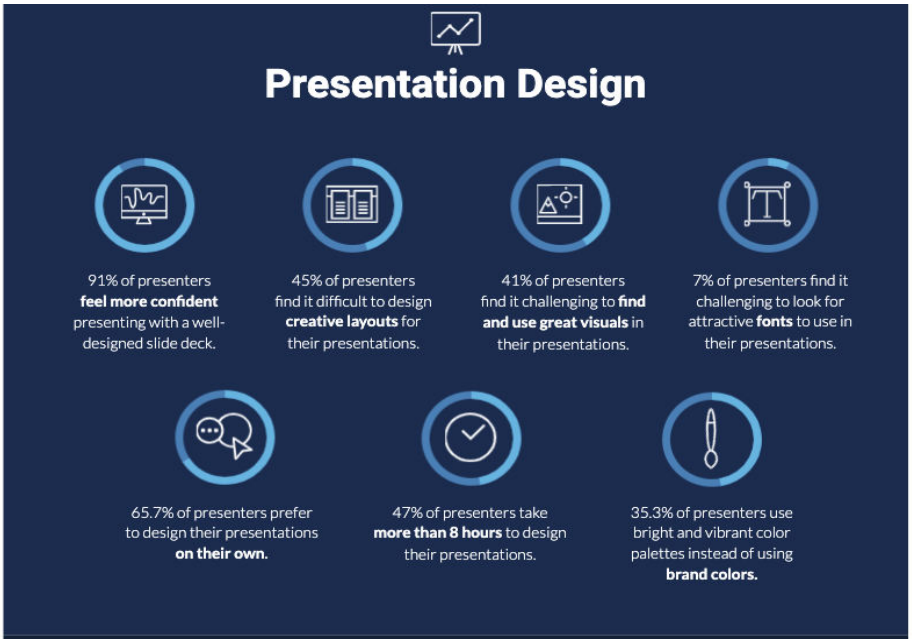

Figure 1: Average percentage of presentation design (ref: google)

Doing a professional presentation without practicing is not possible. Therefore, self-evaluation is doing a massive role. So, in that point if there is a web application to self-evaluate the presenter before doing the final presentation it will be a great opportunity to face with self-confidence. As shown below in the **figure 2** over 98% responses like to self-evaluate their presentation skills using a web application.

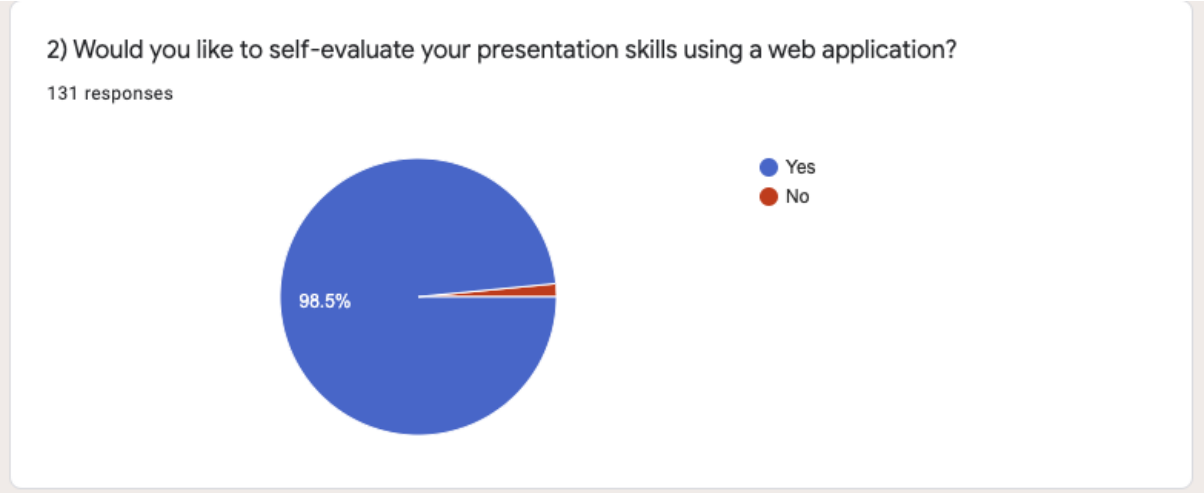

Figure 2: Responses for self-evaluation using web application.

1.2 Literature Review

Computer vision consists of various problems like image classification, localization, segmentation, and object detection. Among those, image classification can be considered as the fundamental key and forms the basis for other computer vision technologies.

Many attempts are made to coach computers the way to automatically assess the aesthetic quality of images. Generally, there are two main phases in an IAA process [1]. The first one is to extract features from images: handcrafted features or learned features. In the second phase, a choice is formed. The decision might be a binary classification indicating the input image as high or low aesthetic. It also could be a regression decision (returning aesthetic scores) or aesthetic ranking orders. When a viewer looks at a photograph, some regions receive more attention than other regions. Those regions are defined as Regions of Interest (ROI) and it might be worthy to identify those regions before IAA [2].

Aydin et al. [3] introduce an aesthetic signature concept and an aesthetic quality assessment method supported sharpness, depth, clarity, tone, and colorfulness features. Their results prove that the aesthetic signature can help improving automatic aesthetic judgment, automated aesthetic analysis, tone mapping evaluation. Using graphics, images, and facts in a proper way to the presentation slides is very important to make the presentation more interesting to the audience. There is a method to check the aesthetics of the slides. Among those, image classification is considered as the fundamental problem and forms the basis for other computer vision problems [4].

In [5], a double-column deep Convolutional Neural Network (CNN) is proposed to perform IAA. Two parallel CNNs are used: one learning aesthetic features from the entire image and therefore the other learning aesthetic features from local parts. Those features are then combined to classify images as high or low aesthetic quality. Additionally, style and semantic attributes are leveraged in their work. Aesthetic features have the advantage of guiding features, but the extraction of aesthetic features is time-consuming and features a strong subjective bias. CNN features can be automatically extracted, and the process of the extraction is simple and convenient. However, the features extracted by CNN are highly abstracted, and as the depth of the network becomes deeper, the extracted features become sparser [6].

In the pre-processing, we extract meaningful features from image information and perform machine learning like k-nearest neighbor (KNN), multilayer perceptron (MLP)

and support vector machine (SVM) to get enhanced model by adjusting brightness and contrast. The comparison results of F1 score on edgy detection image of non-treated, pre-processed and pre-processed with machine learned are shown [7].

Grammatical error correction (GEC) systems aim to automatically correct grammatical and other sorts of writing errors in text. It is common to look at this problem as a sequence-to-sequence task (i.e., ungrammatical sentence → grammatical sentence) and borrow models that were originally developed for neural machine translation MT (NMT) [8]. The first method extracts source-target pairs from Wikipedia edit histories with minimal filtration heuristics, while the second method introduces noise into Wikipedia sentences via round-trip translation through bridge languages. Both strategies yield similar sized parallel corpora containing around 4B tokens. Over the past decades, neural networks have re-emerged as powerful machine-learning models, yielding state-of-the-art leads to NLP [9]. Several related neural network models were proposed to deal with GEC tasks, such as the encoder-decoder model [10], parallel iterative edit model [11], and Transformer model [12, 13, 14]. The first Neural MT (NMT) model to succeed in the state of the art on conll as in paper [15] used an ensemble of four convolutional sequence-to-sequence models followed by rescoring.

The current state of the art (F0.5 of 56.25 on conll-2014) using publicly available Lang-8 and conll data was achieved by Grundkiewicz and Junczys-Dowmunt in 2019 [16] with a hybrid PBMT-NMT system. A neural-only result with an F0.5 of 56.1 on conll was reported by Junczys-Dowmuntet in 2018 [17] using an ensemble of neural Trans-former models. Using SDA, generate a list of candidates that are to be ranked in order of relevance in the given context. Authors of [18], demonstrate the effectiveness of n-grams for English to auto-correct real-word errors and unknown word errors. However, they use high-order n-grams in isolation. They propose a weighted sum of unigrams, bigrams, and trigrams to rank the suggestions to catch up on the resource-scarcity of most languages we also use manually curated video subtitles since it provides information about how people communicate as shown in [19]. With the arrival of the web, grammar checker is not any longer limited to being an add-on program of other large edit software but are often more directly employed by users through the Internet. As English is the most widely used language in the world, a good online grammar checker facility will be very helpful for native English users.

1.3 Research Gap

There are many informative data which can be grabbed from research papers which was refer last few weeks. There is not any research that have been conducted to detect presentation quality using various parameters. So, we have searched for the systems and that's the main and huge gap in our research. But many research articles have been bearing in IAA Image Aesthetic Assessment and grammar checking. [1] In this work, they systematically review major attempts on image aesthetic assessment in the literature and further propose an alternative baseline to investigate the challenging problem of understanding image aesthetics. In here extract the brightness, color-harmony, rule of thirds, shallow depth of field and motion blur feature maps well. They propose the feature fusion layer, which can fuse deep CNN features and aesthetic features without adding feature dimensions. The results show that the aesthetic score produced by the proposed method is like the result of manual scoring [4]. By analyzing above articles technology stack (CNN) used to detect image quality and the result representation has the major differences.

Region segmentation helps for Close-up Image Aesthetic Assessment (CIAA) especially in the case of handcrafted features. Both handcrafted features and learned features have been considered in this study and unsurprisingly learned features are more efficient. For Region of Interest Extraction (ROIE), the combination of sharpness and color factors makes a more precise definition of ROIEs. Both the handcrafted and deep learning-based methods are good but the results with the deep learning-based method is slightly better [3].

[21] They successfully implement an online neural-network-based grammar checker system. Based on the Transformer model, spacy tokenization, spellchecker, and BPE segmentation algorithm, it got 60.93 F0.5 on the conll- 2014 shared task with a beam search size of 1. By testing the web interface with a short paragraph, the speed of prediction is decent, with a short essay, 10 words/second, and for a long essay, it will perform better. This system is still a pre-release version. It started by the command line and not run-in conjunction with Apache. This system outperformed industry-wide accepted spell checkers (GNU Aspell and Hunspell) and rule-based spell checkers (language tool). First, they proposed three different approaches to create typographic errors for any language which has not been done earlier in a multilingual setting. Second, they divide their proposed system into 5 steps — Preprocessing; tokenization; error detection; candidate suggestion generation; and suggestion ranking.[18] Following table describes the gap between past research articles and our proposed system.

Features	PRESENTLY	Article1 [6]	Article2 [2]	Article3 [18]	Article4 [21]
1. Brightness and Sharpness.	✓	✓	✓	×	×
2. Color harmony/Color factors.	✓	✓	✓	×	×
3. Motion Blur & shallow depth field.	✓	✓	×	×	×
4. Rule of third.	✓	✓	×	×	×
5. Preprocessing.	✓	×	×	✓	×
6. Spacy tokenization	✓	×	×	✓	✓
7. Spellchecker & error detection.	✓	×	×	✓	✓
8. BPE segmentation.	✓	✓	×	×	×
9.Ability to add new parameters in future.	✓	×	×	×	✓
10. Contain a classification/rule-based system with a knowledge-based system.	✓	×	×	×	×
11. Notify about the quality as a percentage using frontend.	✓	×	×	×	×
12.For Web Applications.	✓	×	×	✓	✓
13.Fully automated system.	✓	✓	✓	✓	✓

Table 1: Research Comparison Table.

1.4 Research Problem

A slide is a single screen of a presentation, and every presentation is composed of several slides. Slides keep an audience's attention during a presentation and provide additional supporting information in textual or graphic format. Every presenter knows that simplicity may be a virtue that wins business and academic presentations. But when it comes to presentation slides, they make the message difficult to understand by others. To make more sense to the audience the presentation is about, the slides should be more attractive. This will help to maximize the productivity and performance of the presenter during the presentation.

Using graphics, images, and facts in a proper way to the presentation slides is very important to make the presentation more interesting to the audience. There is a method to check the aesthetics of the slides. Among those, image classification is considered as the fundamental problem and forms the basis for other computer vision problems.[4]

By analyzing the uploaded presentation slides, the system will detect the accuracy and attractiveness using text, color themes, etc. This will be done using computer vision and Natural Language Processing (NLP) techniques. This will help to design a more attractive and more accurate set of slides for the final presentation. With the feedback and the rating given by the system by analyzing the uploaded slides, the presenter can improve the quality of the presentation aesthetically.

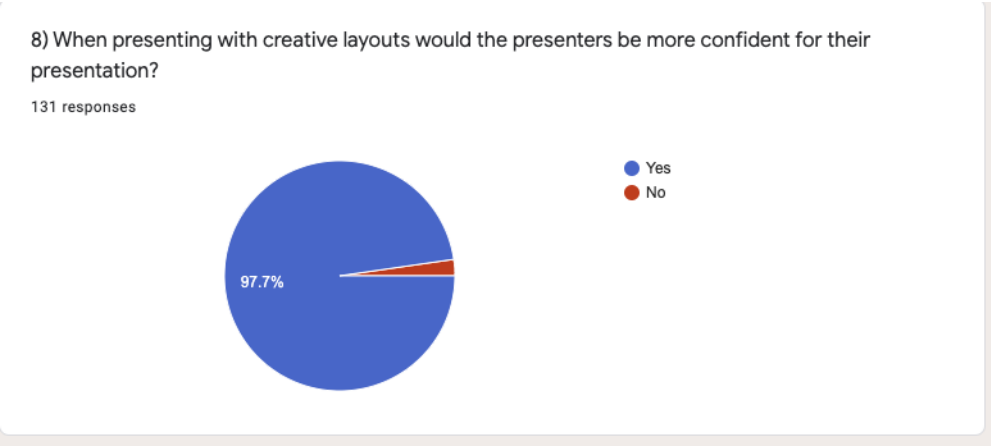

Figure 3:Percentage of people responses from the online survey.

Large number of responses agree with creative layouts can give the confident to the presenter as well as pre-checking them before doing the presentations are essential as shown in the following pie charts (Figure 1 and Figure 2).

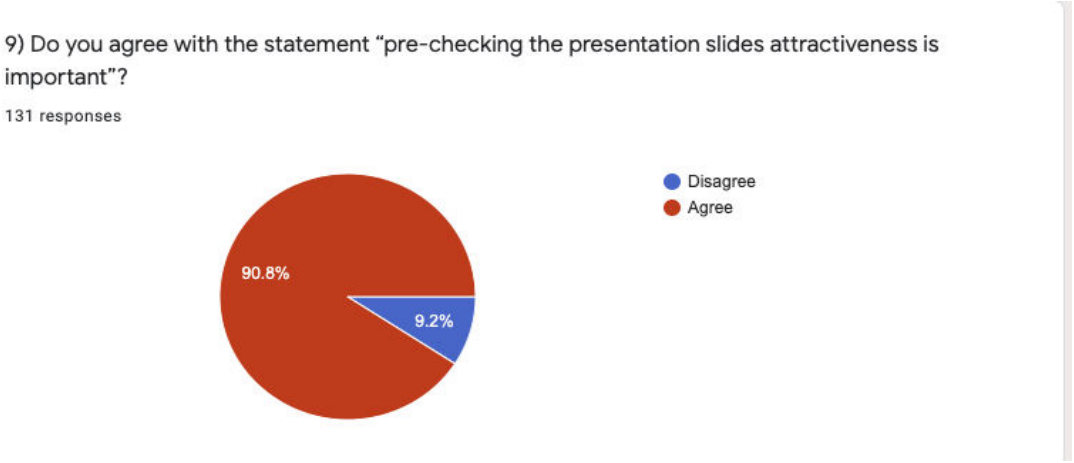

Figure 4: Percentage of people responses from the online survey.

2 OBJECTIVES

2.1 Main Objective

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.

"Presently" is mobile responsive web application which works as a personal trainer to pre-check the presentation skills. We propose a solution based on Natural Language Processing and Computer Vision techniques to cater to the requirement for the user to do a presentation beforehand. The proposed system will assist anyone who needed to practice a presentation beforehand by Identifying the emotions, body language using video and audio, by checking the pronunciations and vocabulary, and by checking presentation quality. Overall, the system will give a rating and feedback to the presenter about the performance.

Moreover, the system will provide the functionality to upload the presentation slides to the system. The system will check the presentations' slides quality by using text and image classification techniques. By analyzing the slides, the system will detect the grammar, attractiveness using color themes, etc. This will also provide feedback and a rating for the quality of the slides. The proposed system is capable to work even with the uploaded presentation slides.

2.2 Specific Objectives

To reach the main objectives, the specific objectives that needs to be attained is as follows,

1. Do the proofreading and check the presentation slides accuracy.

There may be lot of grammatical and spelling errors made by human writers. In general, there is a one-to-many mapping from a clean sentence to a noisy sentence. Using a regular corruption model, many of these synthetic errors tend to be simplistic. Grammatical Error Correction (GEC) has been recently modeled using the sequence- to-sequence framework.

In this step focusing to check the slide accuracy level. For that hoping to extract text from PowerPoint files and sort out using python libraries and methods like tokenization, lemmatization and stemming. Not only in academics but also in business world everybody needs to do the presentations and need presentation slides as well. In that case grammatically

correct slides are very important and self-checking the corrections will be beneficial in today's busy schedules.

2. Aesthetic-aware slides to image synthesis.

Image aesthetic assessment aims at computationally distinguishing high-quality from low-quality photos based on photo- graphic rules, typically in the form of binary classification or quality scoring. Image Aesthetic Assessment (IAA) used to clarify those qualities. In this part I am hoping to discover the possibility of manipulating the aesthetics of images through computational approaches. computer vision approaches for image aesthetic assessment can be categorized based on image representations (e.g., handcrafted features and learned features) and classifiers/regressors training (e.g., support vector machine [SVM] and neural network learning approaches). To the best of our knowledge, no up-to-date survey covers the state-of-the-art methodologies involved in image aesthetic assessment.

The conventional option for image quality assessment is to hand-design good feature extractors, which requires a construct image aesthetic attribute by sharpness, depth, clarity, tone, and colorfulness. An overall aesthetics rating score is heuristically computed based on these five attributes. Specifically, image composition is estimated by global hue composition and scene composition, and multiple types of regional features extracted from subject areas are proposed, such as dark channel feature, clarity contrast, lighting, contrast, composition geometry of the subject region, spatial complexity, and human-based features.

3. After inserting inputs to the personal trainer web application, system can give feedback and ratings.

In here, User able to identify the missing features. After submitting the input system will generate report including specific feature rate as a percentage.

As an example:

Grammar errors - 80%

Image quality – 75%

In this stage ratings will be considering according to the two parameters. First one is how quality the presentation slides are using grammar checker and the second one is how quality the slides are using Image Aesthetic quality checker. In additionally the system also visually display these mistakes with the help of specific icon for ease and quick understanding. Because icons are simple images used in context to communicate something. They are easily

recognizable and easy to remember. Therefore, according to the categorization of rules, there are specific icon sets are displayed in the front end of the system and if some rules are failed, the icons relevant to those rules are disabled from the screen and show the percentage from the animation progress bar to indicate user to how far presentation is applicable with the quality slides.

4. As optional check the relevancy of the presentation topic with the content of the slides.

3 Methodology

3.1 Project Overview

Main target of our system “Presently” is to build personal coach to evaluate presentation skills. According to the current online teaching, learning and Work From Home schedules our proposed system will be beneficial, and it can impact large audience not only in academics but also in health, banking, apparel and textile, telecommunication, shipping, and tobacco etc. Therefore, when creating presentations with an online platform users should be able to work alone without getting help from their experts.

I hope to combine the Transformer model with several pre-processing methods including byte pair encoding algorithm, tokenization, and spellchecker, to build a strong and usable offline grammar checker, and I believe that it is a good approach to build a good asynchronous offline grammar checker, while the main aim of pre-processing is to extract the original and correct versions of each paragraph in the input data along with the edits that transform the former into the latter. Human-Computer Interaction (HCI), Natural Language Processing, Machine Learning, Rule-based, and Knowledge-based which are the most important applied area of Artificial Intelligent (AI) are research areas of our proposed system. The System overview diagram, individual component, and resources and technologies which are mentioned below will be helped to get an understanding of the systematic, theoretical analysis of the methods applied to “The Presently” research field of study.

3.2 System Overview Diagram

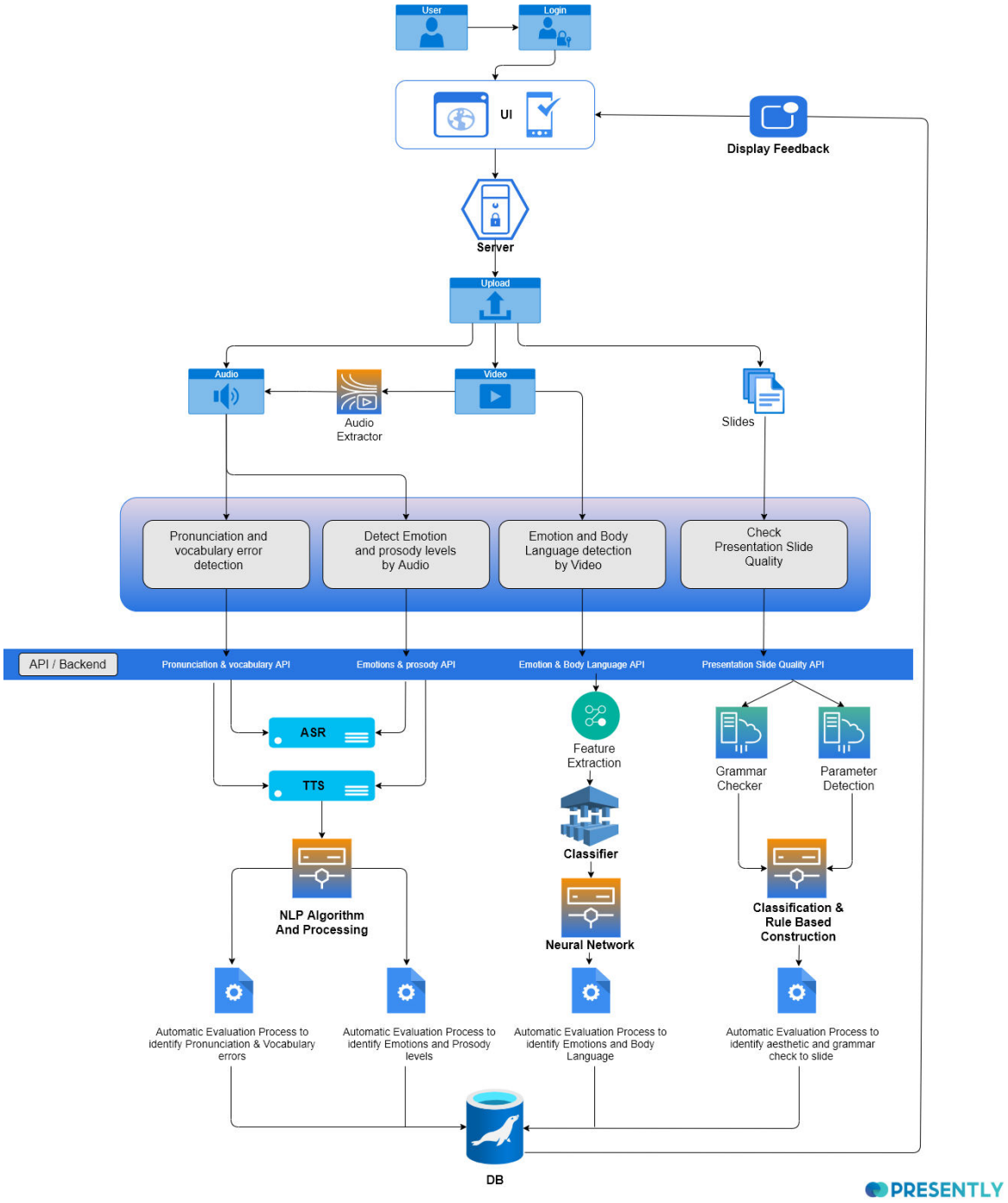

Figure 5: System overview diagram.

3.3 System Overview

1. Requirement Gathering Phase – Presentation audio, video, and slides by obtaining gathered requirements from the stakeholders.

   As the first step of gathering requirements from different industries. Such as Apparel and textile, Agriculture, health, especially education and business world. After gathering video audio and slides of the presentations using NLP (Natural Language Processing) techniques extract text, images, audio, and video from the recorded presentation.

Figure 6: requirement gathering phase.

2. Design and implementation phase – design and implement the specific component.

The system we designed can suggest the wrong pronunciations and vocabulary mistakes done by the presenters when they upload the audio file, video file, or presentation slide. If a video clip is uploaded, the system we designed, will extract the audio clip from it and analyze it separately for the possible wrong pronunciation and possible vocabulary errors. After the analysis is completed, the system will give a rating and feedback on the performance of the presenter which is useful when doing the actual presentation or the speech by improving their skills. The audio analysis and checking for pronunciation errors will be done using Natural Language Processing (NLP). At end of the day, anyone who needs assistance when practicing a speech or a presentation beforehand will get help from the system for successful delivery of the speech. If the presenter uploads the video clip to the system, the proposed system has the functionality to extract the audio clip form it.

With using the extracted audio clip of the presenter, the system will check the emotions, tonality, and prosody. This will be done using the techniques of Natural Language Processing (NLP). After analyzing the audio clip, the system will provide feedback and a rating for the performance of the presenter. From the system, only the video clip will be extracted from the uploaded video. Then the system will identify presenters' emotions, body language, and analyze those emotions separately in the video using video analysis and emotion analysis using Computer Vision. At the end of the process, the proposed system will give a rating and feedback using Machine Learning.

3. Testing Phase

   In Testing part, each component test separately to give the feedback and rating. By analyzing the final output classification or rule based expert system will provide the feedback according to the output. By getting feedback on the speech can improve how to stable their emotions while doing the presentation, With the feedback and the rating given by the system by analyzing the uploaded slides, the presenter can improve the quality of the presentation slide's aesthetics.

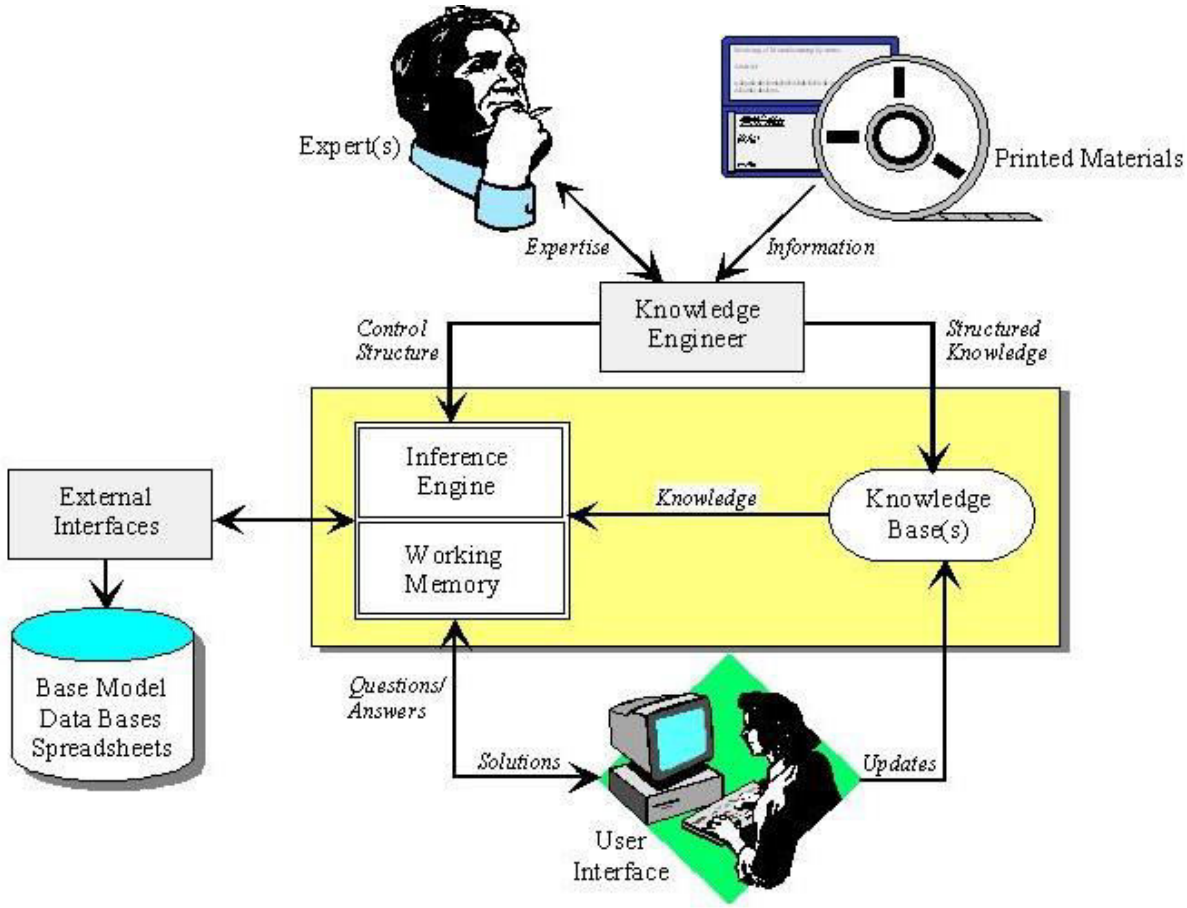

Figure 7: expert system using artificial intelligence.

TYPES OF ERRORS

Sentence Structure Error:

Sentence structure refers to the organization of different POS components within a sentence to give it a meaning. Structuring has a high impact on sentence's readability. ill-formed sentence can further be classified as fragments and run-ons. A fragment is an incomplete sentence in which either subject or verb is missing, or it may be a sentence having dependent clause without the main clause [24]. A run-on sentence is two independent clauses missing a punctuation or necessary conjunction between them, which affects the readability of text.

Punctuation Error:

Punctuation marks like comma, semi-colon, full stop etc. are used to separate sentence elements. A missing punctuation or unnecessary punctuation can alter the meaning of the sentence. Hence, it is important to detect and correct the punctuation errors in English text.

Spelling Error:

Spelling error is the generation of a meaningless string of characters. A common reason for such errors is the typing mistakes done by the writers. These are the most common error types that can be found easily by any spell or grammar checking tool. Generally, these tools have a list of known words. Any word outside this list is considered as a spelling error.

Syntax Error:

Any error violating the English grammar rules is called as syntax error. Syntax errors can be of many types depending upon the inherent relationship between the words of a sentence. Most grammar check- ers aims at finding and detecting various types of syntax errors

Semantic Error:

The errors that do not violate English grammar rules, but make the sentence senseless or absurd, are called as semantic errors. A semantic error can be a contextual error or wrong word choice error. When a wrongly typed word is a real word in the language, it is not detected as a spelling error, yet it does not fit in the given context; such errors are called as contextual errors. Wrong word choice error is using a rare word (possibly due to limited knowledge of vocabulary) which is often not used in the given context.

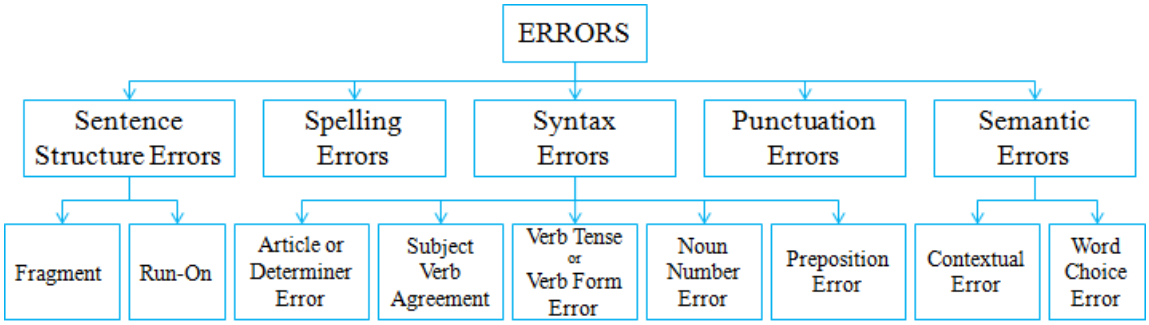

Figure 8: Types of errors diagram.

3.4 Architectural Design – Individual Component

3.4.1 The flow of the system – Individual Component

First take inputs as pptx or screenshots of presentation slides. Then go through Parameter detection system to identify image aesthetics. Frontend used to enter inputs to the system. Grammar checker system also working parallelly with the parameter detection system as shown below in number 2,3 and 4. Text will be extract from the pptx for grammar and spell checker. After processing inputs expert system will generate feedback to identify image aesthetics and accuracy of the grammar in the content. After processing feedback, it will send to the frontend.

Feedback will display to the user through UI using describe in following image (figure 9). Python libraries will use to implement backend part of the system. Develop mobile responsive web application frontend Using Bootstrap, HTML and CSS.

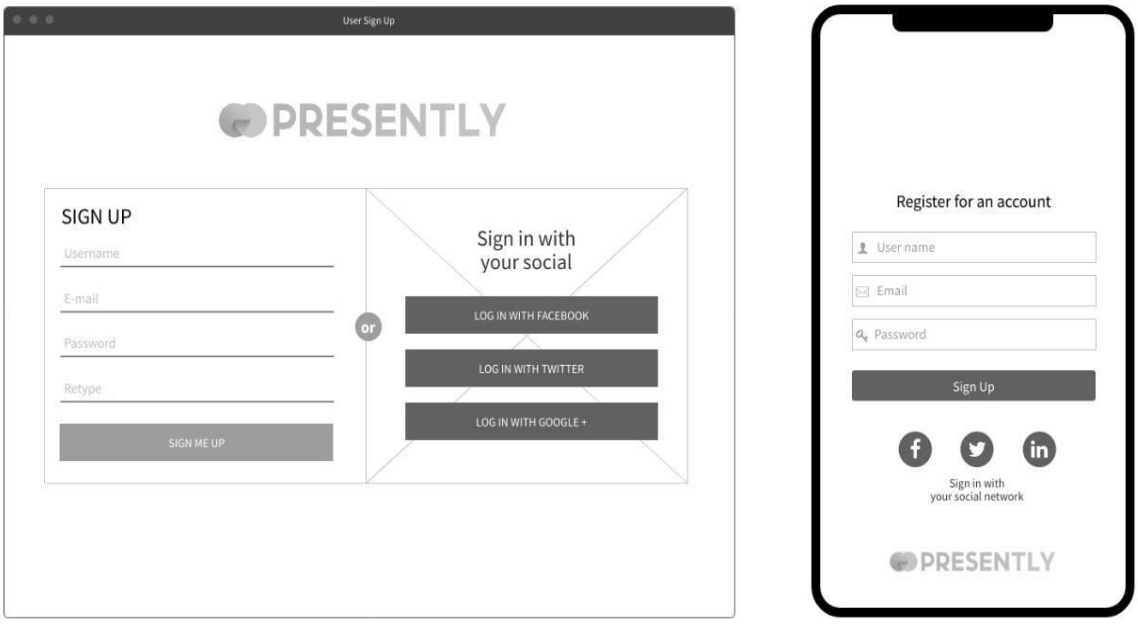

Figure 9: wireframe of the system registration and login.

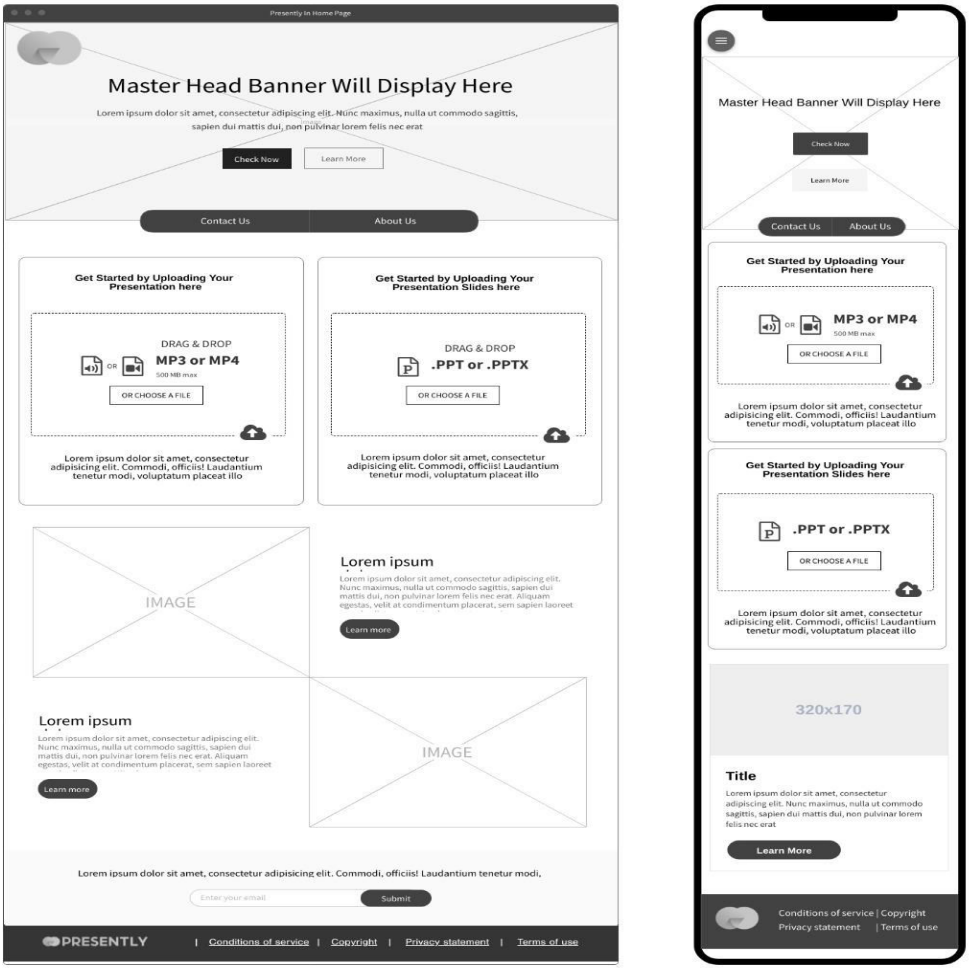

Figure 10:Wireframe of the system inputs.

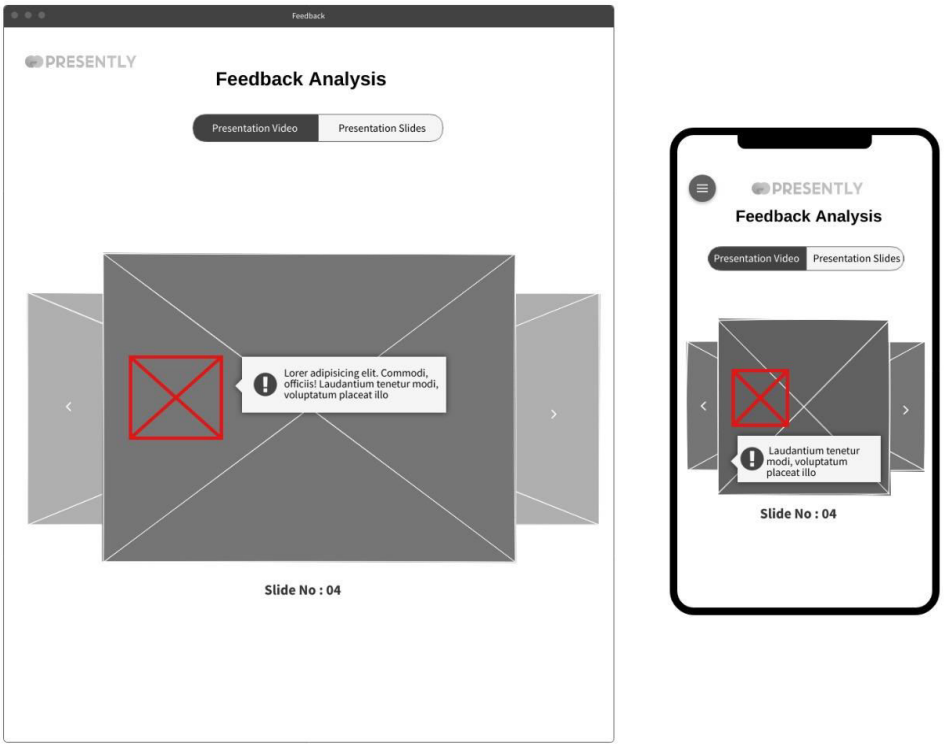

Figure 11: wireframe of the system output.

3.4.2 The Flow of The System Diagram – Individual Component

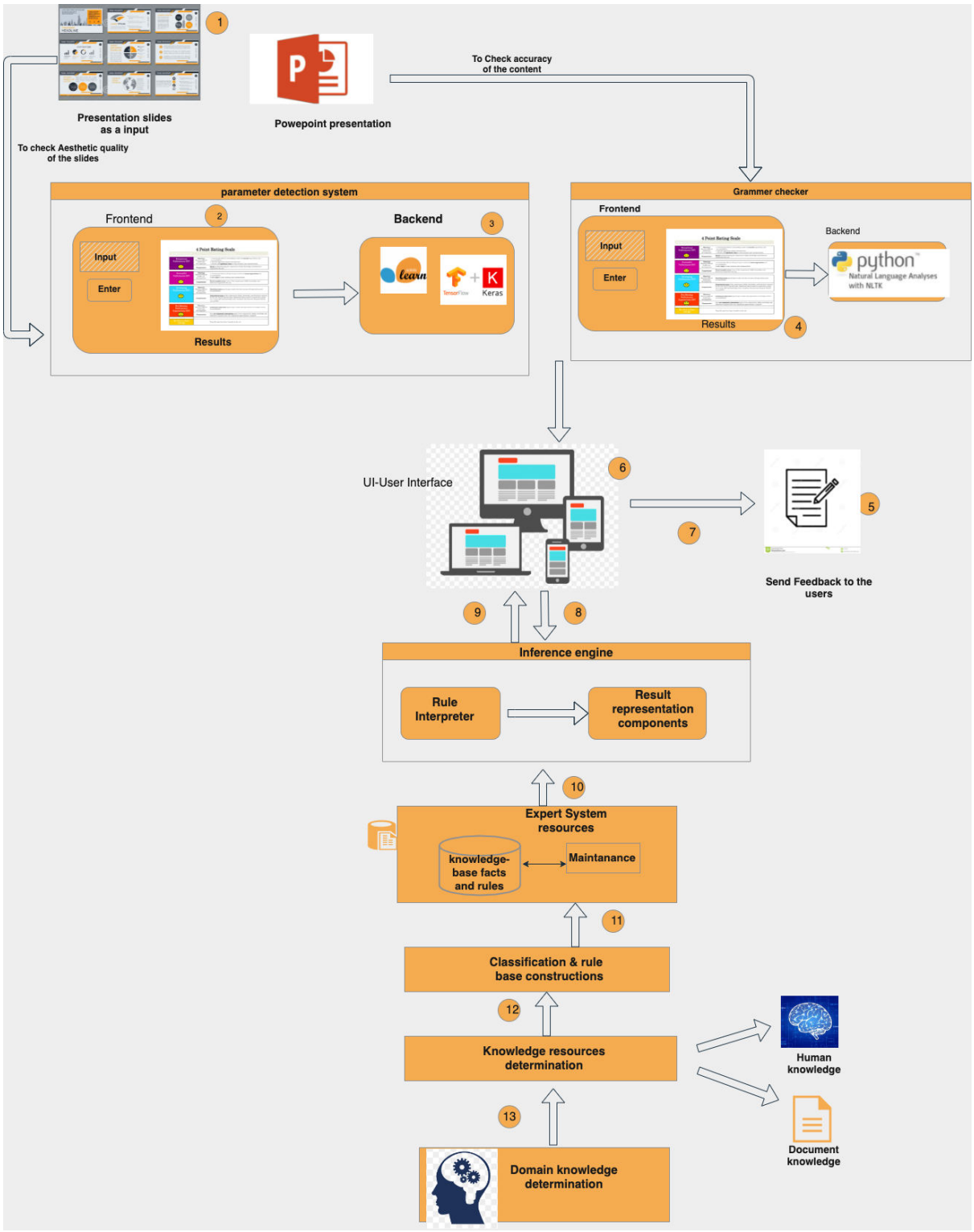

Figure 12: flow diagram and architectural view.

3.5 Work Break Down Chart and Gantt Chart

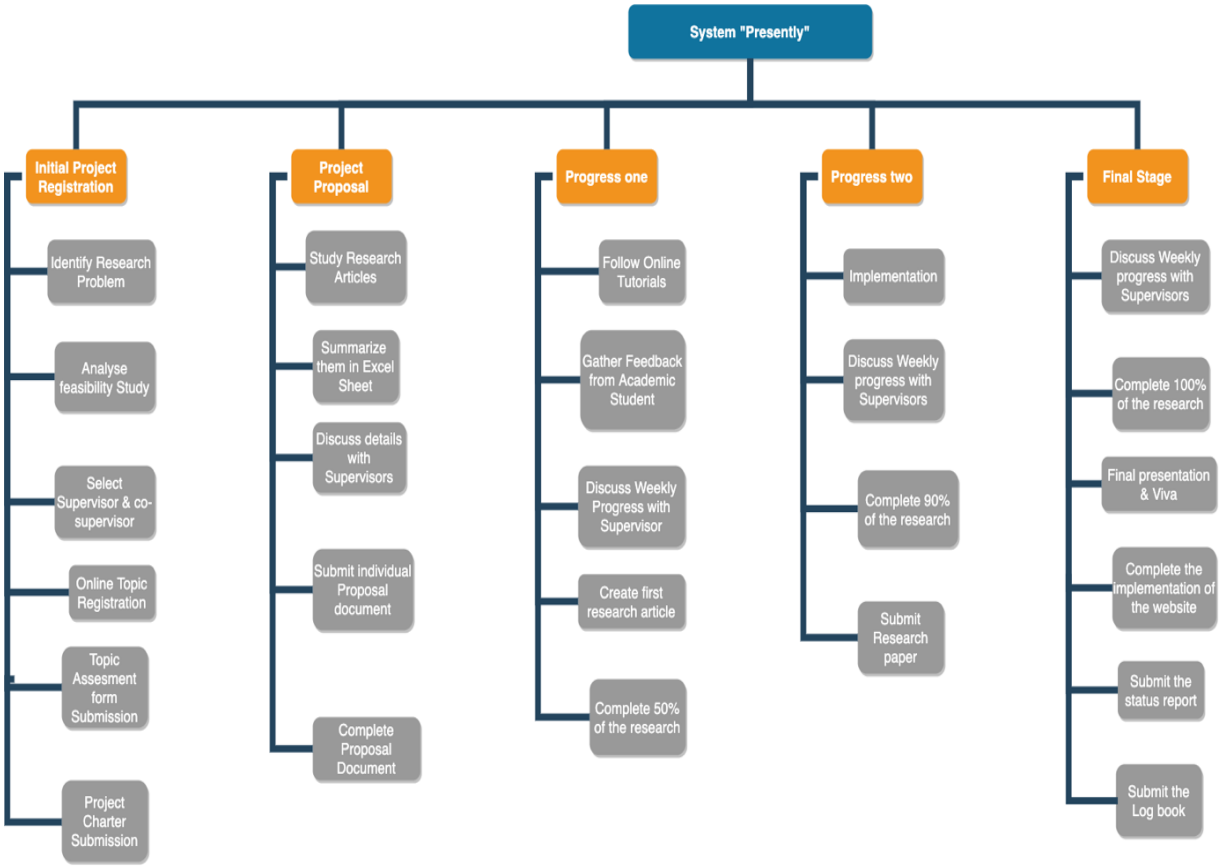

Figure 13: Work breakdown chart for presently.

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-21														
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														

Figure 14: Gantt chart for system "presently".

3.6 Requirement Analysis

3.6.1 Functional Requirements

1. The user can easily record their presentation as a video or audio only.
2. The system able to upload recorded video/audio by itself.
3. Obtain a presentation slide to get aesthetic analysis.
4. Received final feedback (output) for the uploaded presentation and slides.
5. Either Student, employee or user from any industry should be able to get relevant feedback using “Presently”.

3.6.2 Non-Functional Requirements

1. Performance

   Should be able to access all users who need to predict presentation skills.

   Should be uploaded recorded video presentation or audio of speech get feedback for skills.

   Should be uploaded presentation slides (ppt) to get aesthetic analysis feedback.

   Should be able to save all feedbacks in the user account for overall feedback.

2. Security

   Not allowed to watch feedbacks which are given by system for outsiders.

   Not allowed to break rules and regulations given by the system.

3. Availability

   The system should be available all the time.

   The system should be run in any device.

4. Correctness

   Should get final feedbacks from the highly accurate level.

   The application should be error-free.

4. Budget and Budget Justification

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

Table 2: Budget and budget justification

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