**Graduate Project**

**COSC 5369**

**Title of the project: Business Meeting Summary Generator**

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# **Abstract**

Business Meeting Summary Generator is the process of distilling the most important information from a meeting (or sources) to produce an abridged version for a particular user (or users) and task (or tasks).

The ideal of automatic summarization work is to develop techniques by which a machine can generate summarizations that successfully imitate summaries generated by human beings.

So, Summarization involves extracting the most meaningful and valuable bits of information from conversations, audio/video files, etc., briefly, and concisely. It is generally done by feature capturing the statistical, linguistic, and sentimental traits with the dialogue structure of the conversation in question.

In this project, we will be using natural language processing techniques to create precise summaries of business meetings while upholding the context of the entire conversation.

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# INTRODUCTION

## Introduction to Project

A business meeting is a gathering of two or more people for the purpose of making decisions or discussing company objectives and operations. Business meetings are generally conducted in person in an office, however with the rise of video conferencing technologies, participants can join a business meeting from anywhere.

We often think about the Business Meetings as discussing some important information with colleagues – those who matter to your business most. But sharing the discussed information effectively with all other employees is also important.

Business meetings are crucial aspects of an organization. It helps you keep a tab on the processes and activities an organization performs to reach its goals and objectives. It allows you to stay updated, discuss ideas, solve problems, make collective decisions and also helps in team building.

No matter how small/big your organization’s size is, business meetings would always be an important aspect to evaluate and reach your targeted goals. Since business meetings cannot be ignored by the management or its employees, therefore the best way is to find a balance and conduct productive business meetings that help both the parties.

Effective business meetings are the ones which keep you engaged, provide you with the right information and give you a direction to achieve your goals and objectives. I hope the above-mentioned tips help you achieve that and make your business meetings more productive and successful.

# PROPOSED SYSTEM

## Introduction

Running this code will enable us to obtain the several goals of the ’Meeting Summary Generator’ which includes:

* To be able to recognize speech in Business meetings and convert it to text using Natural Language Processing techniques.
* To summarize the text by identifying key points in the meeting using Abstraction-based summarization.
* To be able to share the produced summary with the teammates.
* Provides an interface for all the above tasks mentioned.

## Requirements Analysis

### Software Requirements:

|  |  |
| --- | --- |
| Operating System | : Windows 64 bit, MAC |
| Pre-requisite Software | : Python 3.0 or above versions |
| Frameworks Required | : Bootstrap, Django. |
| IDE | : IDLE (Python GUI) |
| Language | : HTML, CSS, JavaScript, Django, Python |

### Hardware Requirements:

|  |  |
| --- | --- |
| Hard disk space | : 80 – 100 Mbytes for installation |
| RAM | : Minimum 2GB for a single core machine and a minimum of 1GB of memory per processor |

# LITERATURE SURVEY

Meetings are the most widely used tool for company engagement and colleague interaction. Meetings should be a time for exchanging ideas and participating in deep conversations but are typically spent with noses buried in notebooks or colleagues frantically typing every word they hear.

“Meeting Summarizer”, by Akvelon is a note-taking service that uses AI to transcribe conversations and important topics discussed in meetings and conferences. The Meeting Summarizer takes all the information from meetings and conferences and compiles it into a short, concise summary that can be sent out to all meeting participants. All the user has to do is dial the Meeting Summarizer’s phone number or add the Meeting Summarizer to a Skype/Slack call and the service is ready to go. The Meeting Summarizer can send both emails and messenger chats to meeting participants, making the information accessible to everyone who needs it.

Even the most skilled note-taker can miss a few words or accidentally misquote a presenter. While these mistakes may seem minor, they can lead to confusion and the spread of misinformation. For example, something as simple as writing down the wrong meeting time can cause coworkers to become frustrated with one another, putting a strain on colleague relationships. The Meeting Summarizer takes accurate notes that eliminates human error while using technology such as NumPy, PyDub, pyAudioAnalysis, Sumy, Gensim, and NLTK to ensure quality and consistency.

## Need Of Meeting Summarizer

The main benefit of the Meeting Summarizer is that the service allows meeting participants to focus on the actual conversation rather than worry about taking notes during meetings. The Meeting Summarizer is available on demand, day and night, 24/7 with no need for human assistance.

Another benefit of the Meeting Summarizer is that it is immune to the risk of human error. Even the most professional note-taker can miss a few sentences or mix up a few words and those mistakes, no matter how small, could cost a company time and money. The Meeting Summarizer will take detailed, accurate notes that are free of errors and mistakes. summarization engine based on the ensemble of models and neural networks.

# USE CASE DIAGRAM

1. The use case diagram represents the pictorial relationship of users and the modules.

2. Using graphics we are defining the entire flow of the project.

A diagram of a user

Description automatically generated

Figure: **Use case Diagram for Account Sign-Up and Login**

A diagram of a person with several circles

Description automatically generated

Figure: **Use case diagram for Summarizer**

A diagram of a person

Description automatically generated

Figure: **Use case diagram for Admin**

### SEQUENCE DIAGRAM

1. Sequence diagrams are a popular dynamic modeling solution,because they specifically focus on lifelines, or the processes and objects that live simultaneously, and the messages exchanged between them to perform a function before the lifeline ends.

A screenshot of a grid

Description automatically generated

Figure: **Sequence Diagram For SignUp and Login**

A screenshot of a diagram

Description automatically generated

Figure: **Sequence Diagram showing the Summarization Process**