Abstract

**College Name: *Vivekanand Education Society Institute of Technology(VESIT)***

**Team Details:**

| Name | Member/Leader | Year(Second/Third/Final) |
| --- | --- | --- |
| Arunim Chakraborty | Leader | Third Year |
| Kshitij Shidore | Member | Third Year |
| Yash Sarang | Member | Third Year |
| Rupesh Dhirwani | Member | Third Year |

# Problem Selection:

**Summarizing Teams Meetings (STM).**

*In the work-from-home scenario prevailing over the last 18 months and with hybrid working picking steam, most Official meetings have been or will be conducted virtually.*

*While “MICROSOFT TEAMS / Google Meet / Zoom” does provide a feature to download TRANSCRIPT, it does not summarize the meeting.*

*Problem Dimensions:*

* *Parse the Transcript to figure out many attendees were there in the meeting.*
* *Duration of the meeting*
* *Most importantly produce a gist/summary of the meeting*

*List the Action items if they are specifically called out.*

*In case where Transcript is not available, you will have to additionally work on converting*

*‘SPEECH to TEXT’*

*So That, The meeting organizer does not have to take Minutes of the Meeting.*

*The Gist or summary may not be exactly right*

*but can give autosuggestions for the organizer to fill in certain details.*

## Understanding of the problem: (Max 250 words)

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## **a. Understanding of the Problem.**

*The Project STM, we believe, aims to resolve/ease the wearing task of summarizing online meetings and generating minutes for them (TEAMS ones for example). This conventionally has been manual work. The Project STM is an attempt to automate the work, by creating an auto-summarizer or a summarizer-assistant.*

*The major addressing points, we believe, that must be focused on are-*

1. *To generate minutes of the meeting, accurately and efficiently, within time.*
2. *To avoid having to waste more time with the summarization work after the end of the meeting.*
3. *If possible to keep up with the task of summary generation with the meeting runtime.*

**b. Most Challenging aspect of the problem.**

*The most challenging stuff will be to create how the model will be working and how it could be able to summarize the whole meeting especially if there is voice distortion, internet issues and language barriers. Also when it comes to the personalization for an individual it can be a great task to overcome.*

* *Another major drawback happens to be the model accuracy. The model must be able to deliver accurate and reliable results.*
* *Time constraint; the model must be able to cut off the time constraints.*

**c. Reason for Choosing this problem.**

*This problem statement, out of all the others, shows an immediate opportunity to work on the Machine Learning Models.*

*Since the COVID pandemic there has been a shift toward online meetings. From corporate offices to schools everyone used online meeting platforms to carry on their work but due to some problems such as internet issues, family issues, and other distractions, while working from home, working has been greatly impacted which means recollecting what sort of work was done the whole day becomes a bit difficult to recollect especially when an individual attends tons of meetings during a day and becomes a tough job when it comes to taking charge for minutes of the meeting or generating noted. So our project aims to reduce this situation to some extent.*

**Approach to the problem: (Max 300 words)**

a. Approach

* *Avail the user, with various options for selecting the meeting platform.*
* *Based on the availability of transcript and permission, avails statistical information like Duration and Attendance.*
* *Convert the live meet into text and perform ML\* summarization.*
* *Prompting the user to give suggestions to fill in specific details.*
* *Sorting of the summarized text according to the Summary layout prepared.*
* *Printing a pdf of the detailed summary of the meeting.*

c. Platform/Coding Language/Framework:

*Platform: VS Code, Jupyter Notebook.*

*Coding Language: Python, JavaScript.*

*Frameworks: Node.js, React.js, Express, PyQt.*

d. Database:

*MS SQL / PostgreSQL,*

*NLTK (for text processing),*

*Beautiful soup (for web scraping).*

e. External Tools

*AWS, RClone,*

*and FPDF for creating a pdf of the final Summary.*

f. Fortnightly targets

* *Planning the solution to the problem.*
* *Implementing the solution*
* *Create a Voice to Text converter.*
* *Create a Text Summarization program,*
* *Extracting Duration and Attendance.*
* *Create a UI for the app.*
* *Creating an in-app Pdf generator for the final summary.*
* *Running Test Cases / Debugging*

*(These are excluding the 3 fortnights of our Internal and End Sem Exams)*

**Why we think our team will be able to implement a winning solution:**

a. Previous Projects Undertaken

*1. Face Mask Detection in Python.*

*2. Controlling volume using voice detection*

*3. Sweccha App and Admin Portal (for MCGM)*

*4. E-Commerce Application for College students.*

b. Team Strengths

*The members of our team come with great knowledge and with a vision to contribute something to society. Highly passionate about solving problems in a creative way.*

*We are Collaborative, Heedful, and Passionate about what we do and also about how we do it. The Teamspirit is always high and we aim for Perfection.*

c. Team Achievements

* *Secured First Place at the “HACK-AI-THON” Hackathon conducted by AI-CoLegion in our college.*
* *Worked on converting our AI-based Mini-Project into a publishing paper under our college Mentor.*

d. Personal Motivations

*To learn and experience the implementation of our projects in real-life scenarios, improving creativity and design thinking through proper systematic planning, execution, and presentation of our project.*

*A chance to make a difference and solve real-world problems and develop new problem-solving skills. This gives us a career boost and helps us in developing new entrepreneurial skills for any plans for future start-ups.*

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