

# MINIATURE CHAT GPT VOICE ASSISTANT



# PROJECT OVERVIEW

Our miniature chatgpt voice assistant allows the user to ask a question, converts the speech inputted into text, uploads it to Palm API and generates an accurate response.



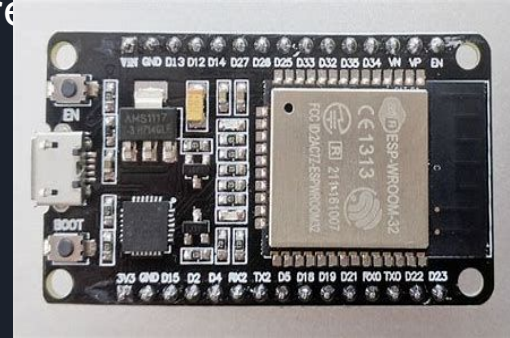
# SOFTWARE REQUIREMENTS

- Python and micropython for programming
- Speech recognition library (like Speech Recognition) for converting speech to text
- Text-to-speech libraries (Pytttsx3) for converting text responses to speech
- Flask



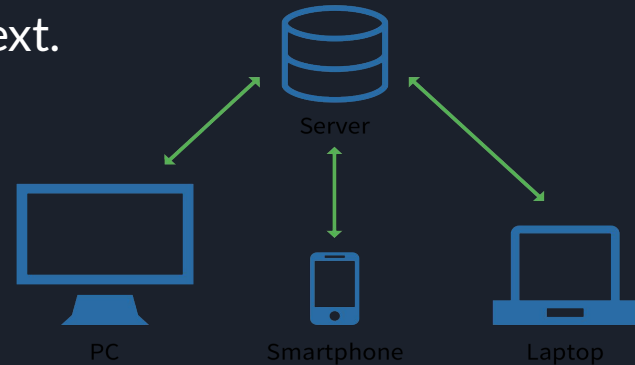
# ROUTE MAPPING

- >The user's speech gets recorded by ESP-32 which acts as the client.
- >The audio file is converted into .wav format and sent to the local server via post method. If the file is present, it gets saved as a buffer file. Else, an error is reported to the client.
- >The file is decoded and the recognized speech is sent to the client as a json dictionary which is displayed for reference for reference.



# ROUTE MAPPING

- >The received text is sent to the server and is uploaded to Palm API. Google PaLM API is an interface that allows developers to add PaLM (Pathways Language Model) functionalities to generative AI applications
- >The response generated is sent back to the client as a json dictionary.
- >The result is observed in both speech and text.





# FIELDS TO WORK ON

- > Modify the client code from python to micropython.
- > Integrate the server code to client code by defining several functions.

speech to text  
conversion by  
speech  
recognition  
module



Audio file is saved in  
.wav format



audio is recorded  
by esp 32



Text to Speech



pyttsx3



FINAL OUTPUT





# THANK YOU

– Rishika Reddy