

# PROJECT PLAN DOCUMENT v2

<i>Project number</i>	Team 49
<i>Project Title</i>	Wave Diaries
<i>Document</i>	Project Plan
<i>Creation Date [v1]</i>	February 2, 2025
<i>Modification Date [v2]</i>	February 13, 2025
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<i>Client</i>	Mr. Jazeel Jabbar, HopeLog(Startup)

## Brief problem statement

The problem focuses on aiding people suffering from mental health issues such as depression, stress, and anxiety. The core objective is to build an AI-based model, integrated with a speech to speech module which can track the user's mood, and empathetically respond to alleviate the distress that the user might be facing. The model's therapeutic responses intend to reduce the reliance on psychologists, making the entire process both accessible 24/7 to the user, and significantly more cost-effective. The problem requires a personalized, sensitive solution committed to the needs of the user with very little margin of error available.

## Team Members

Our team consists of these members along with the roles assigned (P: Primarily responsible, S: secondary responsibility):

**Aditya Gaur:** Server Side(P), DevOps(P)

**Manit Roy:** AI/ML(P), DevOps(S)

**Raunak Seksaria:** Scrum Master (P), AI/ML(S), UI/UX(S)

**Shivam Gupta:** UI/UX(P), Server Side(S)

## Team Communication

A WhatsApp group has been created for effective discussions and negotiations among team members. There is also a slack team for more official communications. Team meetings will be held in-person approximately once a week in our hostel rooms.

## Development Environment

1. A Trello Board has been created for task management.
2. VSCode is the primary editor which we shall be using.
3. MERN stack-based web-app
  - a. MongoDB
  - b. Express.js

- c. React (might use Next.js or Remix: react based Frameworks(undecided))
    - i. Figma
    - ii. Material UI/ Tailwind
  - d. Node.js
  - e. Associated Tools:
    - i. Typescript
    - ii. ESLint
    - iii. Postman
    - iv. JWT
- 4. GEN AI technologies (including for Automatic speech-to-text):
  - a. LangChain: Whisper
  - b. Groq
  - c. Gemini
  - d. GPT 4o
  - e. Smallest.ai
  - f. Hugging Face
- 5. Python and python libraries required:
  - a. PyTorch/ TensorFlow
  - b. NumPy
  - c. Pandas
  - d. NLTK
  - e. SpaCy
  - f. PyAudio
- 6. Deployment:
  - a. StreamLit
  - b. Docker
  - c. AWS

## Milestone Schedule

Milestone	Due Date	Release	Deliverable?
<i>Create SRS</i>	16/2/25	R1	No
<i>Do preparatory work (learning technologies required)</i>	28/2/25	R1	No
<i>Automatic Speech Recognition, speech-to-text, genAI API call along with multilingual support</i>	15/3/25	R1	Yes
<i>Create working responsive frontend (design need not be perfect)</i>	15/3/25	R1	Yes
<i>Do backend routing with basic security features</i>	15/3/25	R1	Yes
<i>Improve Security features and login methods</i>	15/4/25	R2	Yes
<i>Personalized and well thought-of UI design</i>	15/4/25	R2	Yes
<i>RAG, sentiment Analysis and fine tuning</i>	15/4/25	R2	Yes
<i>Deployment on AWS</i>	15/4/25	R2	No