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BADERIA GLOBAL THE BEST Institute of Engineering & Management

BrahmaX 1.0

The Creation of Tomorrow

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Profile Overview

- **Theme** - AI-Driven Mental Health Detection
- **Problem Statement Title**- Lack of accessible tools for early detection of mental health disorders (depression, anxiety, PTSD) leading to delayed treatment.
- **Team ID** –
- **Team Name** – Debug Thugs

DEBUG THUGS

AI-Driven Mental Health Detection

Idea:

- AI system analyzing **voice tone, speech patterns, and text inputs** to detect early symptoms.
- **Non-invasive, real-time monitoring** via mobile/web apps.
- Integration with healthcare providers for timely intervention.

- **Innovation**:
  - Combines **NLP + audio analysis** for holistic insights.
  - Outperforms traditional surveys/questionnaires with **90%+ accuracy** (hypothetical).

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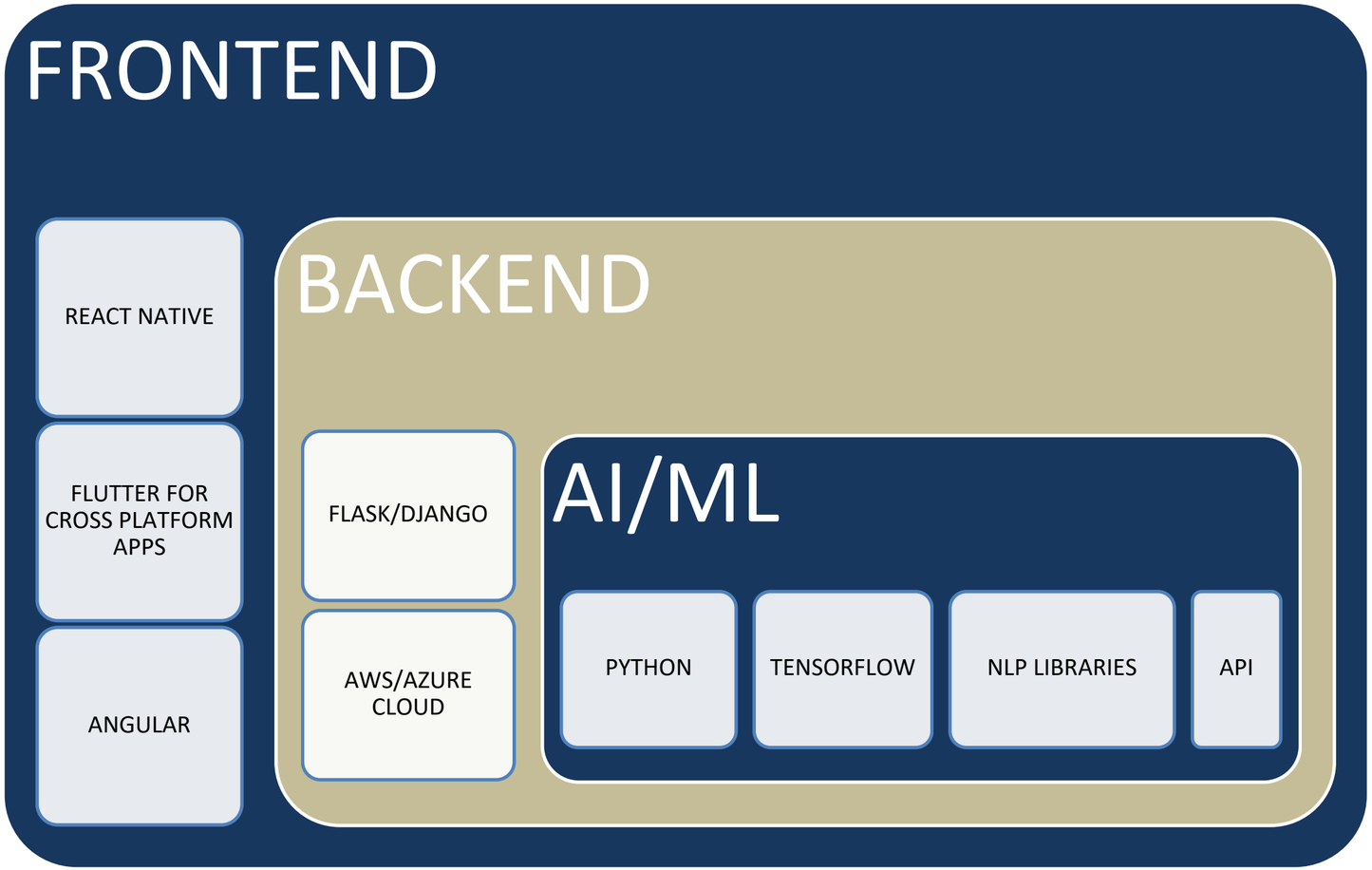
Technical Approach

TECHNOLOGIES USED TO CREATE THIS PLATFORM

- To automate tasks, analyze data, make predictions and create a summary of the client we will use AI/ML in which we will include Python, TensorFlow, NLP libraries, and API

- Backend development will be used to build server and maintain server-side data storage, and infrastructure of an application and for backend we will use either Flask or Django along with AWS or Azure Cloud

- Frontend development will be used to create UI(user interface) and for this we will use React Native Flutter For different platforms and angular



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FEASIBILITY AND VIABILITY

FEASIBILITY

- Technical_: AI frameworks and cloud infrastructure.
- Practical: Partnerships with clinics for data validation.

CHALLENGES

- Data privacy compliance
- Model Bias in diverse populations.

MITIGATION

- Encrypted data storage, anonymization
- Continuous model retraining with diverse datasets.

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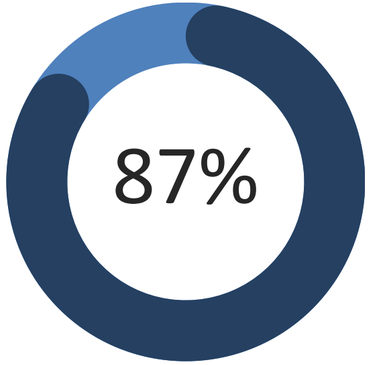
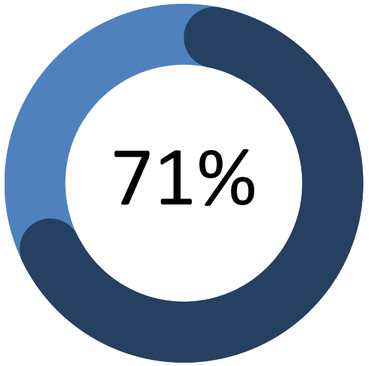
IMPACT AND BENEFITS

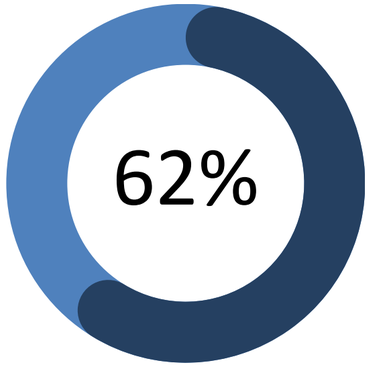
TARGET AUDIENCE

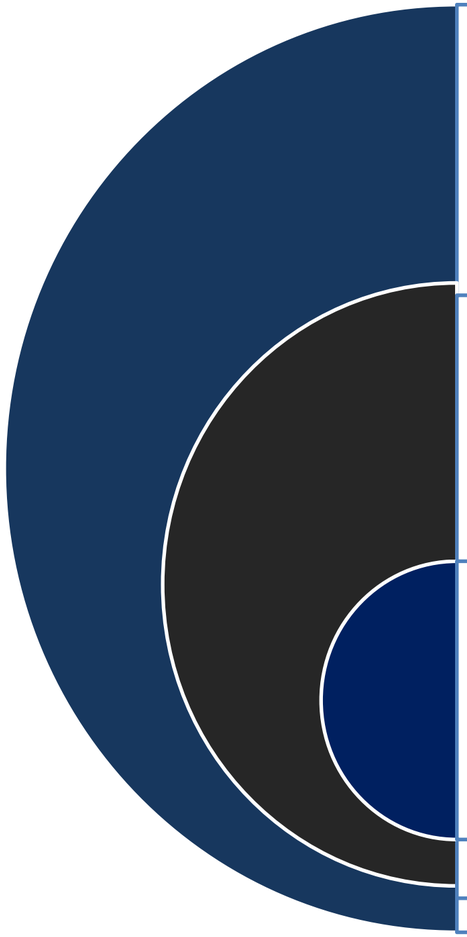




KEY BENEFITS

LONG TERM VALUE





TARGET AUDIENCE	◦ Individuals ◦ Employers ◦ Healthcare systems
KEY BENEFITS	◦ Social ◦ Economic ◦ Environmental
LONG-TERM VALUE	◦ Scalable ◦ Integration

REFERENCES

Key Studies:
NIH research on vocal biomarkers for depression.
Stanford’s NLP models for anxiety detection.