**AI-Powered Dementia Care App**

**GROUP MEMBERS**

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# **Cognitive Stimulation Therapy (CST)**

* What It Does: Gives brain games (puzzles, quizzes) to boost memory and thinking.
* How It’s Done:
  + Hugging Face for NLP to create prompts like “What’s 2 + 3?” or riddles.
  + Voice/touch input for accessibility.
* Datasets: Kaggle text datasets for questions.
* Workflow: Patient does task; AI adjusts difficulty; progress saved..

# **Music Therapy**

* What It Does: Plays personalized music to improve mood and spark memories.
* How It’s Done:
  + OpenCV for facial recognition to detect mood (e.g., happy, agitated) via webcam.
  + Google Cloud Speech-to-Text for voice sentiment analysis.
  + Spotify API for playlist curation based on mood/preferences.

# **Reminiscence Therapy**

* What It Does: Prompts memory recall with photos/stories to boost mood.
* How It’s Done:
  + Hugging Face for NLP to create prompts like “Tell me about this beach trip.”– Google Cloud Vision API to analyze photos for context.
  + Digital scrapbook interface.

# **Patients progress Monitoring**

* What It Does: Tracks mood/behavior with a colorful heatmap for caregivers.
* webcam/speech/wearable data; analyzes mood; generates heatmap/alerts;

# **Chatbot for patient (Replacement for CareGiver)**

* What It Does: Chats, answers questions (e.g., “What’s for lunch?”), suggests activities.
* How It’s Done:
  + Hugging Face, Rasa for NLP conversation/intent recognition.
  + Google Cloud Text-to-Speech for voice output.
* Datasets: Simulated queries; DementiaBank for conversational training.

# **Task and Therapy Reminder**

* What It Does: Sends reminders for tasks/therapies, adjusting based on mood.
* How It’s Done:
  + Scikit-learn for mood-based scheduling (using EABI data).
  + gTTS for voice prompts; Flask/React Native for visual alerts.
  + SQLite for task schedules.