Product Requirement Document (PRD)

1. Overview
The Gym Alarm App (Phase 2) will include a simple built-in chatbot on the main screen that allows users to set multiple alarms through natural language input. The chatbot will only respond to prompts related to setting alarms, viewing active alarms, and deleting alarms. This feature enhances the user experience by enabling quick, conversational alarm management.

2. Objectives
• Provide a conversational interface for setting alarms easily.
• Support multiple alarms in a single prompt.
• Ensure chatbot operates only within alarm-related contexts.
• Maintain lightweight operation, fully on-device if possible.
• Integrate seamlessly with existing Gym Alarm App logic.

3. Functional Requirements
• The chatbot should appear on the main screen below or beside the alarm list.
• User can type or use voice to set alarms (e.g., “Set alarms at 6 AM, 7 AM, and 8:30 AM”).
• The chatbot parses natural language into structured alarm objects.
• The chatbot can display confirmation (e.g., “I’ve set 3 alarms for you”).
• The chatbot can list all active alarms when asked (“Show my alarms”).
• The chatbot can delete alarms by time (“Delete 7 AM alarm”).
• All alarms set via chatbot are saved persistently and integrate with the alarm triggering system.

4. Non-Functional Requirements
• The chatbot should be fast and responsive (response time < 1s for typical inputs).
• All processing should happen locally to avoid latency and privacy issues (optional backend later).
• The chatbot must reject any non-alarm-related input with a polite fallback (“I can only help with alarms right now”).
• The app should function on both iOS and Android without platform-specific behavior differences.

5. Tech Stack
• **Frontend:** React Native (Expo or CLI)
• **Chatbot Logic:** Rule-based or lightweight LLM integration (like OpenAI function calling or local regex parser)
• **Data Storage:** AsyncStorage or SQLite for alarm persistence
• **Background Tasks:** react-native-background-fetch or expo-background-task
• **Voice Input (Optional):** react-native-voice or Expo Speech

6. User Flow
1. User opens app and sees chatbot and alarm list.
2. User types or says: “Set alarms for 6 AM and 7 AM.”
3. Chatbot extracts times, validates, and stores them.
4. Chatbot confirms: “I’ve set alarms for 6 AM and 7 AM.”
5. Alarms trigger as usual at their respective times.
6. Chatbot can show or delete alarms upon request.

7. Future Enhancements
• Add integration with calendar or fitness app.
• Add natural voice output (text-to-speech) for confirmations.
• Integrate LLM-based natural language understanding for more flexible phrasing.
• Add alarm routines (e.g., “Gym alarm + motivation quote”).