REQUIREMENTS DOCUMENT

1. Introduction

NattyWorld is a web-based fitness platform designed to assist individuals in achieving their fitness goals effectively. The platform offers a wide range of features tailored to meet the diverse needs of users, including personalized diet plans, workout routines, BMI calculation, gym location services, and user authentication. Whether users are beginners looking to kickstart their fitness journey or seasoned fitness enthusiasts seeking new challenges, NattyWorld aims to provide comprehensive support and guidance.

2. User Roles

NattyWorld caters to two primary user roles:

- **Users:** Individuals interested in improving their fitness levels, including beginners and experienced fitness enthusiasts.
- **AI Coach:** An artificial intelligence (AI) coach that provides personalized guidance, recommendations, and training programs based on user input and fitness goals.

3. Functional Requirements

3.1 Registration and Authentication:

- Users can register with NattyWorld by providing basic information such as name, email, and password.
- Upon registration, users can authenticate themselves using their credentials to access the platform.

3.2 User Profile:

- Each user has a profile page where they can view and update their personal information.
- Users can specify their fitness goals, preferences, and current fitness level in their profiles.

3.3 User Features:

- **Personalized Diet Plans:** Users can access personalized diet plans tailored to their fitness goals and dietary preferences.
- **Workout Routines:** NattyWorld provides customized workout routines designed to help users achieve their fitness objectives.
- **BMI Calculator:** Users can calculate their Body Mass Index (BMI) based on their height and weight input.

- **Gym Locator:** The platform offers a feature to find nearby gyms based on the user's location.
- **User Authentication:** Secure authentication mechanisms ensure user data privacy and account security.

3.4 AI Coach Features:

- **AI-Powered Recommendations:** The AI coach leverages machine learning algorithms to analyze user data and provide personalized recommendations for diet plans, workout routines, and fitness strategies.
- **Dynamic Training Programs:** Based on user input and progress tracking, the AI coach generates dynamic training programs that adapt to users' evolving fitness levels and goals.
- **Real-Time Feedback:** Users receive real-time feedback and guidance from the AI coach during workouts, helping them maintain proper form, intensity, and motivation.
- **Progress Tracking:** The AI coach monitors user progress, adjusts training programs as needed, and provides insights into performance trends and achievements.

4. Non-Functional Requirements

4.1 Performance:

- The platform should be responsive and scalable to handle concurrent user interactions.
- Page load times should be optimized to provide a seamless user experience.

4.2 Security:

- User data should be encrypted during transmission and storage to ensure privacy and security.
- Authentication mechanisms should be robust to prevent unauthorized access to user accounts.

4.3 Usability:

- The user interface should be intuitive and user-friendly, with clear navigation and informative feedback messages.
- Accessibility standards should be followed to ensure that the platform is usable by individuals with disabilities.

4.4 Compatibility:

- The platform should be compatible with a wide range of devices and web browsers to accommodate diverse user preferences.