

## **AANGANCARE**

**Digital Ecosystem For Anganwadi Services** 

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**BATCH:B** 

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## **OBJECTIVE**

#### **AanganCare (Digital Ecosystem for Anganwadi Services)**

- Integrated Digital Platform: Manages health, nutrition, and education for children, pregnant women, and teenagers.
- User Management: Provides role-based access, user registration, login, and profile management.
- Child Management: Handles child registration, attendance tracking, progress monitoring, parental communication, and nutrition guidance.
- Maternal Health: Conducts health surveys and provides pregnancy care videos for better awareness and guidance.
- **Teenager Module:** Enables adolescents to communicate concerns, access educational content, and receive BMI-based health advice.
- Vaccination Module: Allows users to view vaccination schedules, book/cancel slots, and receive role-based alerts.
- Nutrition Module: Sends dietary guidance and nutrition-related alerts for different user roles.
- **Efficiency & Transparency:** Ensures better management, accessibility, and engagement in child and maternal care.

#### SOCIAL RELEVANCE OF TOPIC

- **Better Healthcare Access**: Provides timely health monitoring and checkups for children, pregnant women, and elderly.
- Child Health Focus: Tracks growth, vaccinations, and nutrition, improving health outcomes.
- Maternal Health Support: Offers personalized health and dietary guidance to reduce maternal
  and infant mortality.
- **Educational Resources**: Provides videos and activity tracking for children and teenagers to develop key skills.
- **Elderly Support & Community Empowerment**: Offers nutritional and health support to the elderly and strengthens community service delivery.
- Digital Transformation of Anganwadi Centers

### **DESCRIPTION OF A PROJECT**

- AanganCare is a digital platform designed to improve the accessibility, efficiency, and transparency of Anganwadi services. It integrates health, nutrition, and education management for children, pregnant women, and teenagers, ensuring a well-structured and data-driven approach to maternal and child care. The system enables seamless user registration, role-based access, and profile management to ensure personalized and secure interactions. It facilitates child registration, attendance tracking, progress monitoring, and parental engagement while also supporting pregnant women through health surveys and pregnancy care resources.
- Teenagers benefit from educational content, health advice, and BMI tracking for personalized guidance. Vaccination tracking and scheduling help ensure timely immunizations for children and pregnant women through slot booking and automated alerts. Nutritional management features provide dietary guidance and reminders to promote healthy habits. Additionally, a feedback mechanism allows users to share experiences, contributing to continuous service improvement. By integrating these essential functions, AanganCare enhances the effectiveness of Anganwadi services, fostering better health, nutrition, and education outcomes for communities.

### **EXISTING SYSTEM**

- Poshan Tracker: Monitors nutrition status but lacks integration with other services like health and education.
- ICDS: Provides food, health, and education services but relies on paper-based records, making the process slow and error-prone.
- Anganwadi Services Management (Manual): Uses paper logs for child health, food distribution, and immunization, lacking real-time monitoring.
- MCTS: Tracks maternal and child health but relies on manual updates, causing delays in data processing.

#### **PROPOSED SYSTEM**

- **1.Comprehensive User Profiles**: Tracks detailed data on children, pregnant women, and elderly for health, nutrition, and educational progress.
- 2.Real-Time Monitoring: Provides updates on health, vaccinations, and milestones for children.
- **3.Role-Based Access**: Ensures secure and appropriate access for Admins, Anganwadi Workers, Parents, and other users.
- **4.Data Integration**: Combines health, nutrition, education, and vaccination records for seamless management.
- **5.Notifications and Alerts**: Sends timely reminders for checkups, vaccinations, and emergencies.
- **6.Food & Nutrition Tracking**: Monitors food distribution and alerts for nutritional deficiencies.
- **7.Educational Support**: Offers educational content and virtual counseling for teenagers.
- **8.Vaccination Slot Booking**: Allows parents to book vaccination slots with reminders.

### **MODULES**

- ❖ User Management: Implements role-based access (Admin, Parents, Teenagers, Pregnant Women, etc.), user registration, login, and profile management with JWT authentication. Admins can manage all users and their roles.
- ❖ Child Management Module: Manages child registration, attendance tracking, progress monitoring, parental communication, and nutrition management, ensuring transparency and better child care. Admins can oversee all child-related records and activities.
- ❖ Maternal Health Module: Conducts health surveys to assess pregnant women's conditions and provides pregnancy care videos for awareness and guidance. Admins can monitor maternal health data and survey reports.
- ❖ Teenager Module: Allows teenagers to communicate with Anganwadi workers, access educational videos, receive health advice, and track BMI for personalized well-being guidance. Admins can track teenager concerns and BMI records.

- ❖ Vaccination Module: Enables users to view vaccination schedules for children and pregnant women, book or cancel slots, and receive role-based vaccination alerts via email for timely immunization. Admins can manage vaccination schedules and slot bookings.
- ❖ Nutrition & Food Distribution: Sends nutrition-related alerts and guidelines for all user roles, promoting healthy dietary habits and providing essential nutritional advice for children, pregnant women, and teenagers. Admins can configure nutrition alerts and dietary plans.
- ❖ Feedback Module: Allows users (parents, teenagers, and pregnant women) to provide feedback on services, programs, and overall system experience. Admins can review and analyze feedback to improve system efficiency and user satisfaction.

#### **TOOLS AND TECHNOLOGIES**

#### • Frontend Technologies:

**React**: For building the user interface and creating a responsive, dynamic front-end experience.

**HTML/CSS**: For structuring and styling the web pages.

**Bootstrap/Tailwind CSS**: For UI components and responsive design.

#### Backend Technologies:

**Node.js**: For building the server-side application and handling requests efficiently.

**Express.js**: For creating APIs and managing server routes.

**MongoDB**: For database management, storing user profiles, trainer details, store inventory, and more.

**Mongoose**: For MongoDB object modeling, providing a schema-based solution to model application data.

#### • Authentication and Security:

JWT (JSON Web Tokens): For secure user authentication and managing sessions.

**bcrypt**: For hashing passwords to enhance security.

#### API Integration:

Axios/Fetch: For making HTTP requests to interact with backend services and APIs.

#### Database Management:

MongoDB Atlas: For cloud-based MongoDB database management and scaling.

#### **FUTURE SCOPE OF AANGAN CARE**

- •AI and Data Analytics Integration
- •Telemedicine and Mobile App Development
- •Expanded Educational and Health Programs
- •Geographic and Partnership Expansion
- •Integration with National Health Schemes

## REFERENCES

www.google.com
https://icds.gov.in/en/about-us



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