

Detailed Key Features:

1. User Roles & Authentication

- **Role-Based Access Control (RBAC):** Different user roles (Admin, Healthcare Staff, Residents, Families, Visitors) with specific permissions.
- **Secure Login:** Multi-factor authentication (MFA) for staff and families to ensure secure access.
- **Profile Management:** Each user can update personal details, contact information, and emergency contacts.

2. Resident Management

- **Resident Profiles:** Track and manage resident details (name, age, medical history, allergies, medications).
- **Health Monitoring Integration:** Real-time health metrics (e.g., heart rate, blood pressure) for each resident, either manually entered by staff or integrated with wearable devices.
- **Care Plan Management:** Store and update individualized care plans that include medical needs, daily routines, and personal preferences.
- **Resident Communication:** Family members can send messages or notifications to residents, while staff can update resident status.

3. Staff Management

- **Staff Profiles:** Keep detailed records of staff members (contact info, role, work schedule).
- **Shift Scheduling:** A robust scheduling system to assign staff to specific shifts based on availability.
- **Task Management:** Allow staff to create and manage tasks, such as administering medication or scheduling appointments.
- **Performance Tracking:** Monitor staff performance, attendance, and overall care quality.

4. Video Conferencing

- **Integrated Video Calls:** Facilitate video calls between residents and their families or doctors.
- **Scheduled Appointments:** Allow residents or families to schedule video calls for doctor consultations, family meetings, etc.
- **Group Calls:** Support group video calls for family discussions or virtual therapy sessions.
- **Telemedicine:** Integration with healthcare providers to provide remote consultations, especially for regular checkups.

5. Event & Activity Management

- **Event Calendar:** Staff can add, update, and manage events and activities (e.g., group exercises, entertainment, therapy sessions).
- **Resident Participation:** Allow residents to RSVP for events, helping staff keep track of attendance.
- **Notifications & Reminders:** Automated reminders for upcoming events, birthdays, or other important dates.
- **Activity Tracking:** Track the resident's participation and engagement levels in various activities for health and well-being purposes.

6. Health Monitoring

- **Real-time Data:** Integration with wearable devices to monitor vitals such as blood pressure, heart rate, oxygen levels, etc.
- **Health Dashboard:** A comprehensive dashboard for tracking the overall health status of all residents.

- **Alert System:** Automated alerts for abnormal health readings, notifying relevant staff or doctors.
- **Medication Reminders:** Ensure that residents receive the correct medication on time with reminders for staff or automated alerts for medication administration.

7. Visitor Management

- **Visitor Scheduling:** Families or other authorized visitors can book appointments to visit residents, ensuring that visits are well-organized.
- **Check-In/Check-Out System:** Track when visitors arrive and leave, ensuring security and that no unauthorized visitors enter the premises.
- **Health Protocols:** Set up requirements (e.g., temperature checks, mask-wearing) for visitors to adhere to the health and safety guidelines.
- **Virtual Visits:** Enable families to visit their loved ones through video calls if they cannot attend in person.

8. Reports & Analytics

- **Health Analytics:** Generate health-related reports for each resident, including trends in vital signs, activity participation, and medication adherence.
- **Staff Performance Reports:** Provide insights into staff performance, including task completion rates, punctuality, and care quality.
- **Resident Activity Reports:** Show participation levels in activities and events, tracking resident engagement.
- **Financial Reports:** Generate reports related to payments for care services, donations, or medical treatments.

Innovative Suggestions:

1. AI-Powered Health Predictions

- Implement AI and machine learning algorithms to predict potential health risks based on collected data, such as changes in vitals over time or behavior patterns.

2. Voice Assistance Integration

- Integrate a voice assistant (like Google Assistant or Alexa) for residents to interact with the system hands-free. This could be helpful for seniors with mobility or vision issues.
- Voice prompts could help with scheduling activities, taking medication, or even making video calls.

3. Teletherapy Services

- Offer virtual therapy sessions for residents (e.g., mental health support, rehabilitation therapy) directly through the platform, which can be booked by family members or staff.

4. Smart Room Integration

- Integrate smart room technologies (e.g., voice-controlled lighting, automated beds) to help residents with physical limitations control their environment with ease.

5. Donation System for Care

- A donation platform allowing families, friends, or charitable organizations to make financial contributions for a resident's care or the facility's needs.

6. Interactive Social Features

- Include interactive social features where residents can participate in online forums, share experiences, and engage with other residents or their families.

7. Remote Family Engagement

- Provide family members with the ability to check in on their loved ones through a mobile app, receive notifications for key events (appointments, health updates), and participate in care planning.

8. Gamified Health Monitoring

- Create gamified elements to encourage healthy behaviors in residents, such as awarding points for attending activities, reaching fitness milestones, or taking medications on time.

9. Smart Medication Reminders

- Use smart pillboxes integrated with the system to remind residents to take their medication, with notifications sent to both staff and families.

10. Virtual Reality (VR) Activities for Residents

- Implement VR activities, such as virtual travel or immersive therapy sessions, to help residents experience new places and activities from the comfort of their care facility.