



CASE STUDY

HOME CLINICAL CARE

Customer

A Home Healthcare Services Provider based out of Bangalore, India.

Business Need

The client, who is a home based clinical care provider, used manual processes to capture the diagnosis information from the home based patients. The clinician visits the patients at their home and captures the data from them in hard copy forms. This was found to be inconvenient, as lot of time was spent in data entry, and the manual process was error prone as data entry operators were entering the manually captured data into the system. A tablet device with an easy to use user interface for the clinicians, who visits the home, was found to be a very effective way of data capture and diagnosis. The data captured being saved immediately to cloud based servers would make the data safe and easily accessible anywhere anytime.

Solution in Brief

Home Clinical Care Nursing service is a web based application designed to provide effective and quality medical care in the comfort of patient's home. Doctors uses the distributed EMR to keep patient records. Home Clinical Care Nursing service solution provides ideal combination of cloud-based electronic medical record system and web based user interface compatible for PC and tablet devices. Designed for clinicians, it is easy, intuitive and efficient for the clinical staff, yet complete with powerful features that maximize documentation accuracy and compliance. Home Clinical Care Nursing service frequently monitor patient's progress by accessing in the information from the distributed EMR and share it with patients on the Home Clinical Care Nursing service App to ensure return to good health easier and faster. Patient's detailed medical history is shared with each doctor through distributed EMR, so that they can be fully aware of the patient's health status.

- Intuitive functionalities of EMR workflows combined with easy to use user interface. Fully automated electronic workflow eliminating paper based forms
- Streamline care coordination with anytime, anywhere access to current patient information from cloud.
- Enhanced Compliance by facilitating medical records preparation completely and accurately at the point of care, reducing documentation errors
- Optimized operations on workflows: enables clinical staff to capture accurate, timely and compliant medical information, which optimizes every part of the home based care services.
- Improved productivity and increased staff satisfaction due to the faster and efficient documentation at the point of care resulting in elimination of data entry after hours.

- Following are the areas of service.
 - Stroke Rehabilitation
 - Respiratory Care
 - Wound Management
 - Physiotherapy
 - Dental Care
 - ICU Care

Solution Highlights

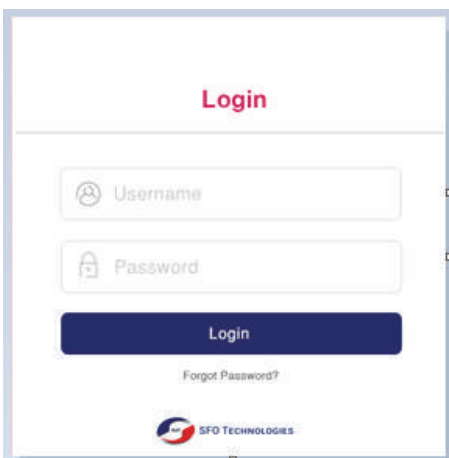
- Optimized workflow and WOMAC data entry.
- Template based data entry support feature.
- SNOMED CT integration for auto-suggest clinical terminologies.
- Flexible template configuration during workflow.
- Image guided patient condition selection.
- Customized Schedule preparation.
- Automatic ICD and CPT code display.
- Comprehensive Report generation covering all workflow phases.
- Responsive UI design for laptops/tablets.

Modules

The different modules in the Home Clinical Care Nursing service are:

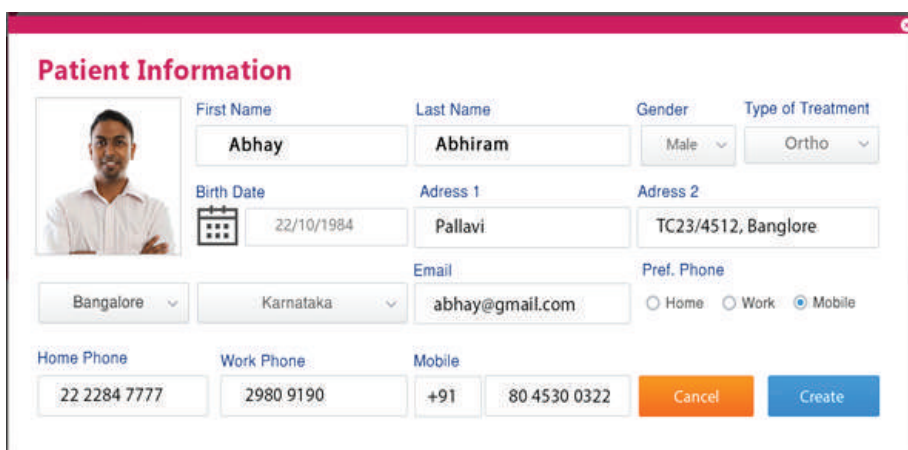
- **Authentication and Authorization**

The application requires the users to authenticate themselves through the Login screen. The application also has different user roles and access to different screens in the application is granted based on the privileges of the users.



- **Patient Management**

The application has the provision to register and view patients or migrate and synchronize patients from the old Legacy application

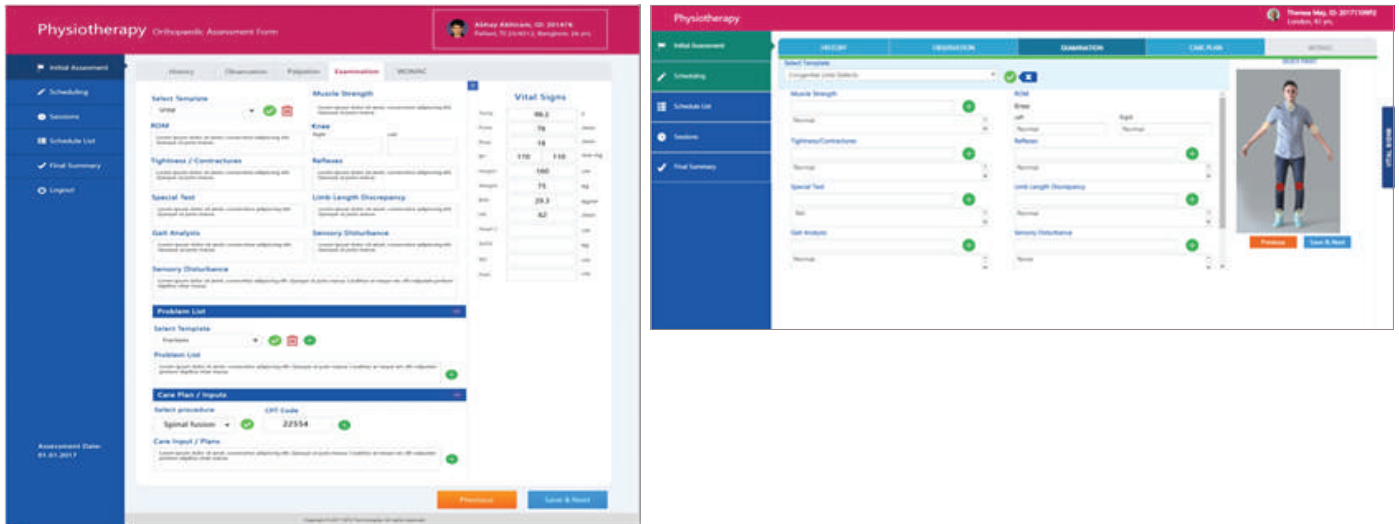


- **Departments Management**

The application displays all departments. The application also lists the specialties based on the selected department. The application allows adding details of the departments and the specialties within each department.

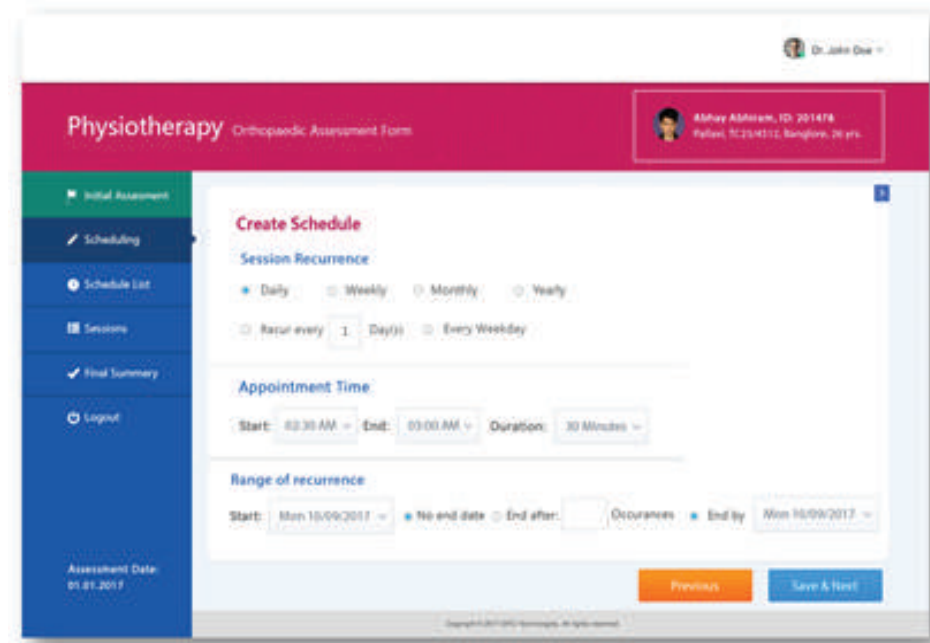
- **Initial Assessment**

The application captures initial assessment of patients for around 30 specialties, which spans across six departments. Each assessment form in the EMR application has around 30 fields for data capture. The Application also provides an option to input data by clicking on different parts of an image of a human body.



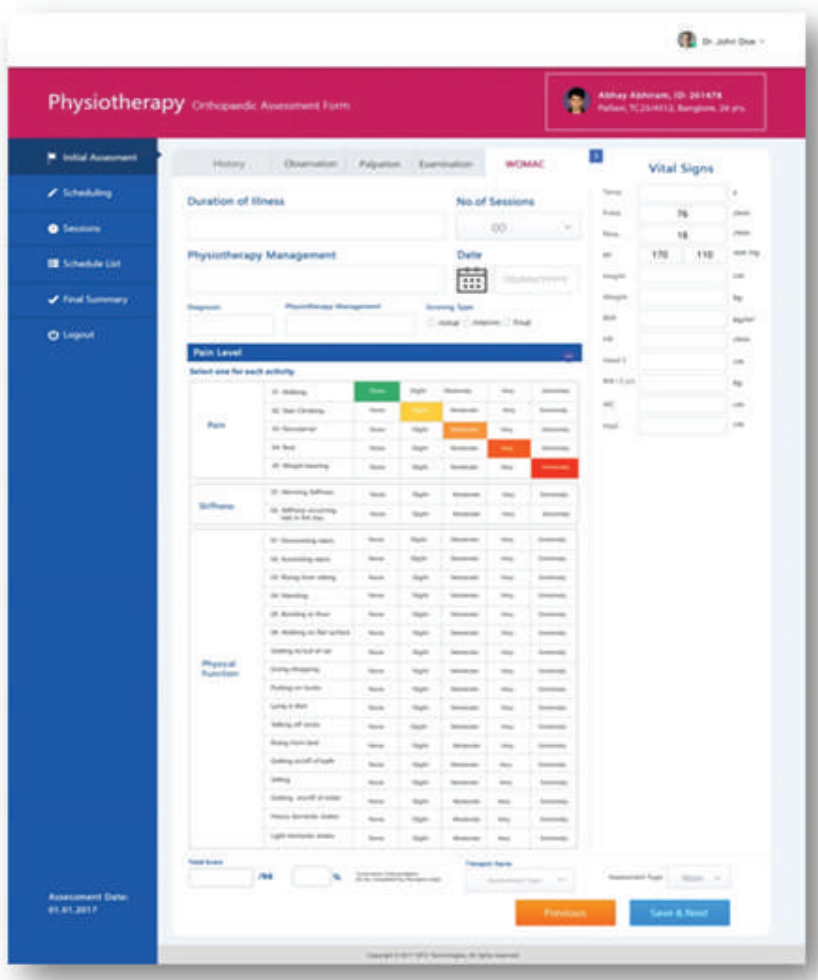
- **Scheduling**

The application allows the users to schedule sessions and manage sessions for the patient. The application supports creation of schedules with daily/weekly/monthly/yearly and custom frequencies. It also provides notification for logged-in users for his/her schedules. The application supports navigation to the schedule list page from notification link.



- **Sessions – Data Capture**

The application captures the daily progress of the users through the WOMAC forms. The application uses color scheme based indicators to display the different health parameters of the patient based on the data captured during these sessions. Discharge Summary gets generated automatically at the end of treatment from the WOMAC entries made on different sessions.



• Reporting

The application shows different detailed reports for assessments. The reports shows details like assessment details, daily reports, WOMACs and discharge summary.

Technologies Used

- Angular 5
- JavaScript
- HTML 5
- Bootstrap
- Java
- Spring Boot
- PostgreSQL
- AWS

SFO's Role

The complete ownership of the Requirements gathering, design, development and system testing of the application.

SFO Technologies was a natural choice to develop the solution because of the strong domain and software Technology expertise.