Silverlight App for a Medical Software Services Provider

Executive Summary

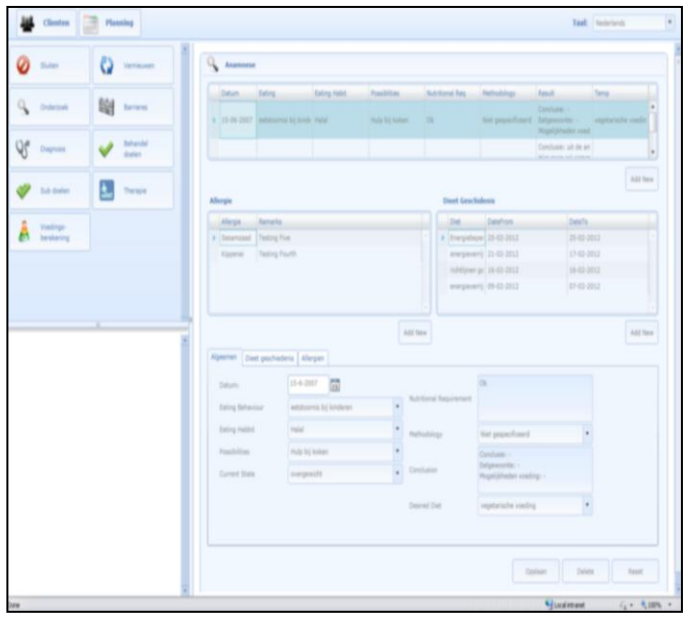
The client is a leading medical services provider from Netherlands who provides niche services to dieticians and nutritionists.

The client wanted us to add some more functional modules to the existing project which is a very big Health-Care project used by dieticians to manage their clients (Patients) and conduct nutrition calculation.

The following were some of the additions that we had to make to the existing application:

- ✓ Implement the Page flow
- ✓ Include User friendly rich UI for dash board to show details of a client in the form of Grid, ListView, Chat, Dash Board, etc.
- ✓ Incorporate a fast and reliable search implementation
- ✓ Modify the existing application such that it is able to support all the languages across the globe.

Mindfire Solutions responded proactively to the client's needs and created modules to offer improved functionalities. We also implemented a Multi-Lingual application so as to support the multitudes of languages across the globe.



Screenshot 1: The medical research history of a patient

About our Client

Client Description: Medical Software Services Provider

Client Location: Netherlands

Industry: Healthcare

Technology

Silverlight 4, MVVM, RIA SERVICE, ADO.NET Entity Framework 4.0, SQL SERVER 2008

Business Situation:

Our client wanted to add more functional modules to its existing project. The current project is a very big Health-Care project used by dieticians to manage their clients (Patients) and conduct nutrition calculation. In addition to the existing functionalities the Medical services provider specifically catering to dieticians and nutritionists wanted to implement additional functionalities such as the Page flow, enhanced UI for dash board to show details of a client like Grid, ListView, Chat, Dash Board, etc. A fast and reliable search implementation was also to be added into the functionalities along with implementing Multi-Lingual Application so that the new enhanced application can support all the languages across the globe.

The existing module was a Planning Calendar and the existing functionalities consisted of the following:

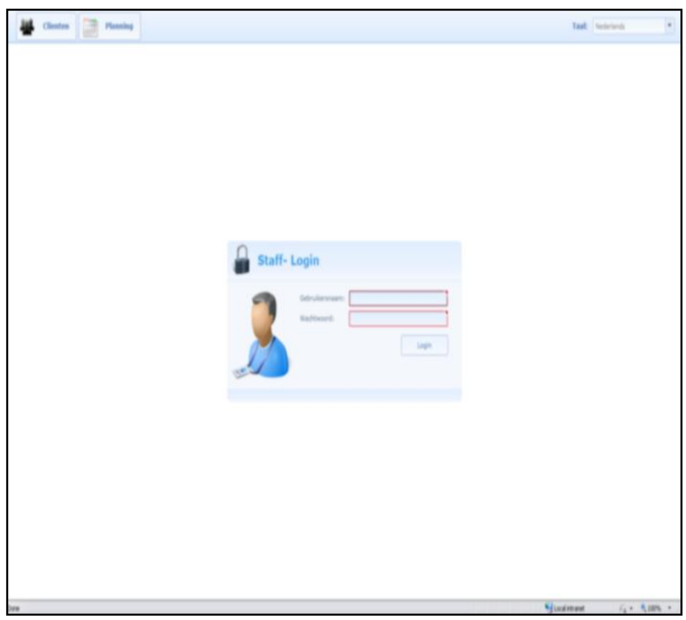
1. Search for a client
2. Add an Appointment
3. Add event etc.

The Mindfire Solution:

We have implemented Localization and Globalization to make the application support different languages. We have also created the following modules with improved functionalities to cater to the customers various specific needs:

A. Login Module:

As the current application was devoid of login functionalities present for the application, we implemented the same for the new application. After logging into the system, we move to the client search page where we can search for a client from the list of Client details present in a Grid. By clicking on the client we can move to Client dash board. Along with the above functionalities we have also created some User Controls which can be dynamically changed according to the module.



Screenshot 2: The staff login page

B. Client Module:

In the client Module we have created the following pages having different functionalities:

1. **Client Details**

   This helps to display the selected client's details and also update the same.

2. **Client Social**

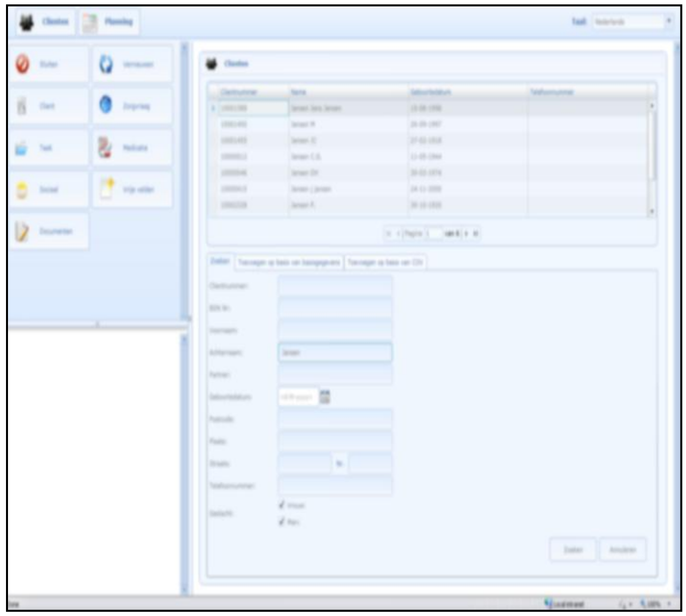
   This functionality helps to display the client social details such as living situation etc. and also add new, update existing or delete the social details

3. **Client Task**

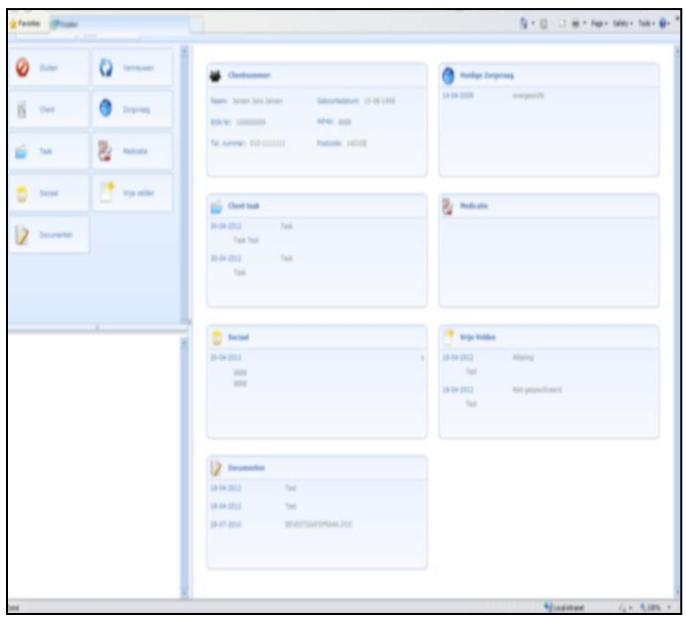
   Here we can display the Client Task details which include different types of Tasks, the person to whom the Task has been assigned, the person who has requested the Task, Task Completion percentage and also add, update or delete a task.

4. **Client Medication**

   For the Medication we have implemented the functionality of displaying the Medication details which includes the type of Medication that is given to the client, the duration of the Medication, the Intake method, the tools required for taking the Medication, Quantity, Dosage, Frequency etc. And just like above mentioned pages the functionality of add, update and delete is also included.



Screenshot 3: The client (patient) search page



Screenshot 4: The client (patient) dashboard

5. **Client Documentation**

   We have developed this page to maintain the client documents and display the detailed client document along with the additional functionalities of add, update and delete.

6. **Client Free Fields**

   Here we display the Client Free Fields details and also having the functionality of add, update and delete

7. **Client Insurance**

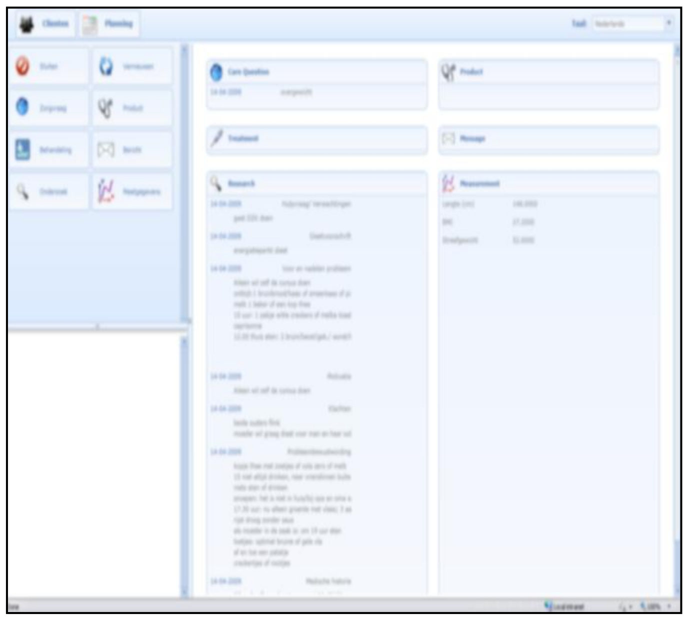
   This page helps display the different insurances of the client.

C. Current-Care Module:

In this Module, we have created the following pages each having different functionalities:

1. **Care-Question General**

   For the Care Question General page we have implemented the functionality of displaying all the related medical information of the selected client. For any given patient for instance, the information regarding the doctor who has treated the patient, the duration of the treatment, the type of treatment etc is displayed on this page. We can add, update or delete the related medical information of a selected patient. At the time of adding we can browse the reference date. We have implemented the search functionality to search the medical diagnosis of the particular patient.



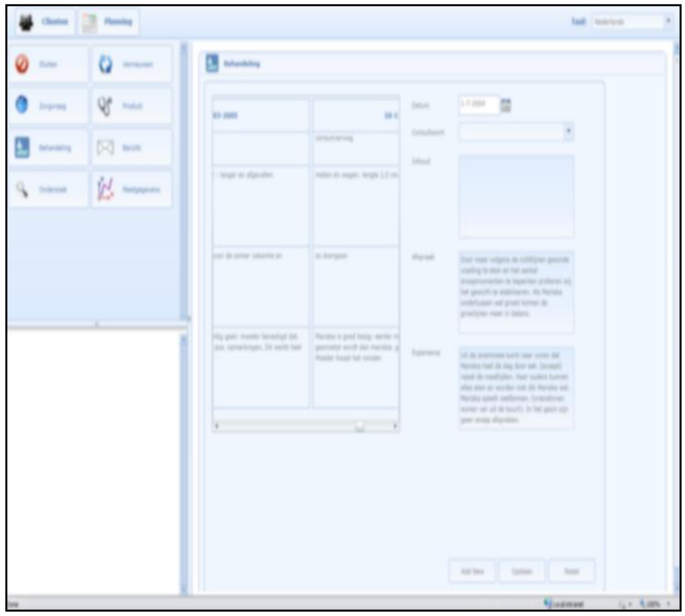
Screenshot 5: The current care dashboard

2. **Product**

   In this case we have implemented a functionality which displays all the product details such as information regarding its manufacturer and its supplier along with the product name and its corresponding code etc.

3. Treatment

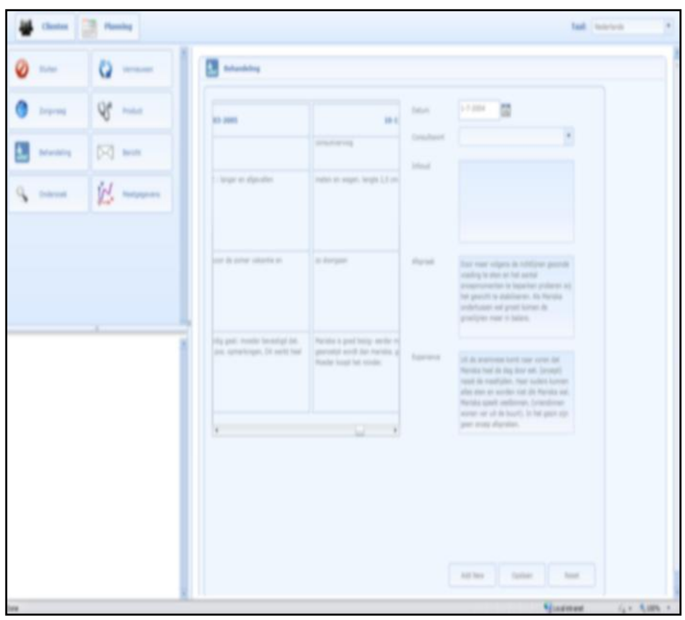
For the treatment page our customer wanted us to display the treatment details not only according to the treatment date but also the specific treatment details of a specific date should display just below it. In order to realize this feature we have implemented the functionality to display it in a horizontal list box. Here we can display all the treatment details of a specific client like the appointment date, consultation type and the experience of the client who has undergone the treatment. At the same time we have added the provision to add, update or delete a selected treatment for a selected client.



Screenshot 6: The current care treatment page

4. Message

For the Message page we have implemented the functionality of listing the messages according to date under the heading of messages of today, yesterday, previous week, two weeks ago, previous month and older etc. On selecting a specific message we can display its details like title of the message, sender email address, recipient email address, received date and the content of the message to name a few.



Screenshot 7: The current care treatment message board

5. **Measurement**

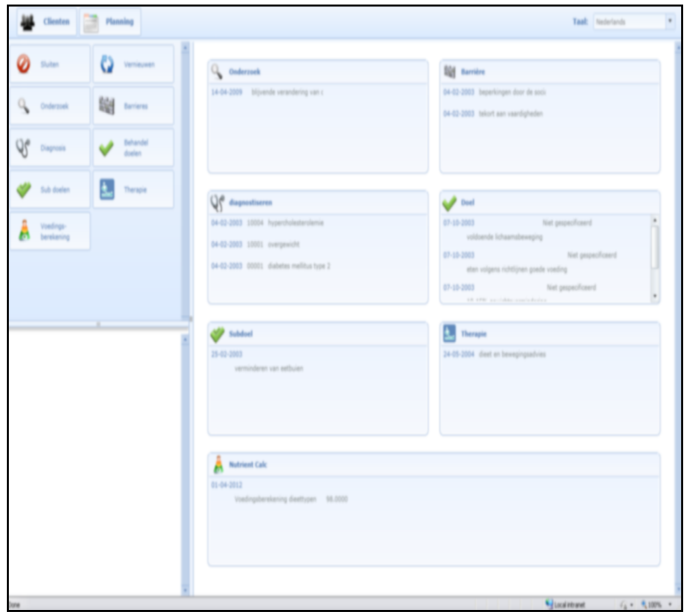
   For this page we have implemented the functionality to display the details of the measurement data of the client and we have also added some filters to display it such as, diagnosis, care need and also date wise filter like week, month, 3 month, 1 year etc. In this page we have added the chart controls to display the data and also features which help changing the chart dynamically.

D. Research Module:

In the Research Module we have created following pages:

1. **Research**

   Here in this page we are displaying the details of Client diet history which includes the eating habits, nutrition requirements, and the duration of the diet. Separately in the Allergies section, the allergies of the client are displayed.



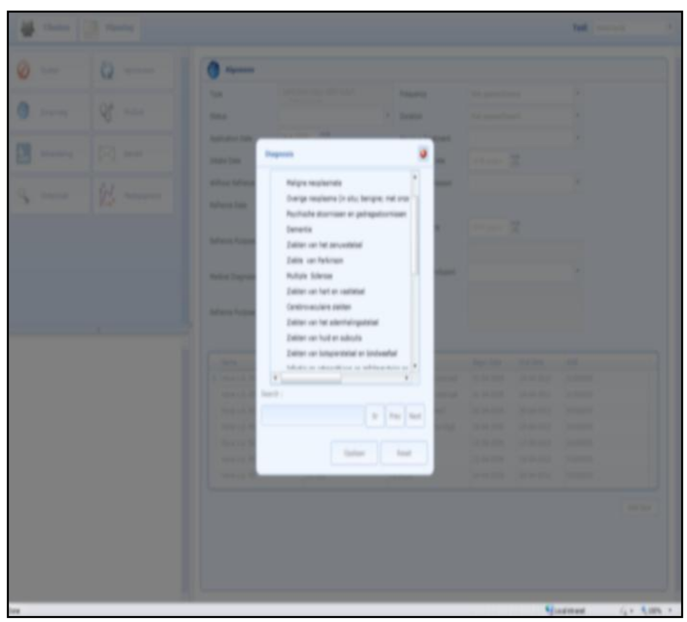
Screenshot 8: The research dashboard

2. **Barrier**

   We have added the functionality of displaying the barrier details along with adding, updating or deleting the selected barrier.

3. **Diagnosis**

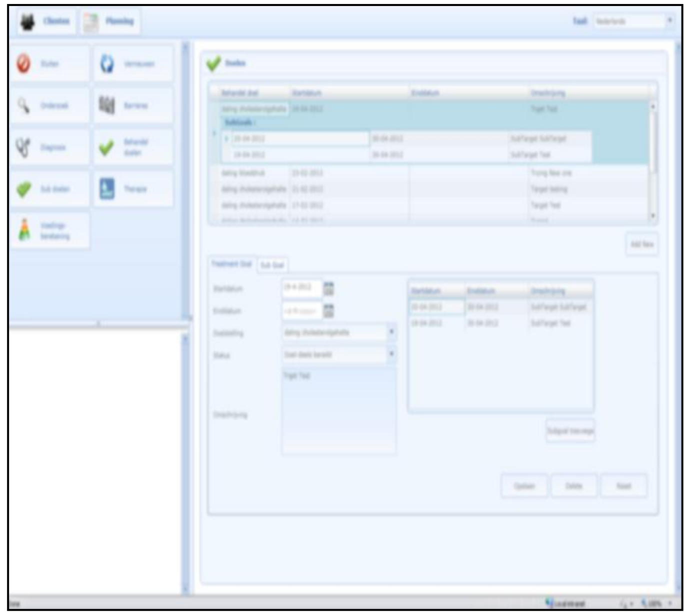
   Here we display the details of the diagnosis for the client.



Screenshot 9: The diagnosis pop-up page

4. **Goal**

   This page is all about treatment goals of the clients. In this page we have implemented the functionality of displaying the treatment goals details which includes the treatment goal description, its duration etc. Here our client wanted us to add the sub goals to each goal and display it under that specific goal which means we have to group the goals according to sub goals such that on selecting a particular goal the corresponding sub goals should be list out under each goal. Again, on selecting the goals and sub goals the details should be displayed. We implemented the above desired functionality in the goals page.



Screenshot 10: The goal and sub goal page

5. **Therapy**
   We have added the functionality of displaying the Therapy details of the client, and also adding, updating or deleting the selected Therapy

6. **Nutrition Calculation**
   Nutrition calculation page is all about to display the Client nutrition requirement details. Here in this page information regarding the nutrient requirement for the specific client, details of the diet prescribed, the nutrients the diet contains and its energy percentage, details of what diet should be while having a meal (breakfast, lunch, dinner) etc. Our client wanted us to display the energy percentage etc. with the help of charts along with the flexibility of having the charts change dynamically.

Customer Benefits and Future Relationship:

Our client was extremely pleased with the dedication and diligence of our expert Silverlight developers who not only added additional functionalities to make a robust application but also suggested out of the box solutions for some of the trickier functionalities. We are still working on the project and infusing newer functionalities which only add more to the success of this application.