

## Executive Summary

This project involved developing an EHR as well as a Practice Management System. The user-base includes physicians and clinic-administrators. The application allows the users to maintain records and to enter patient details like medical history, allergies, vitals, medication etc. into the system. They also have the provision to send electronic prescriptions, electronic lab order, claims, billing etc.

The database was designed so as to enable integration of lab orders and results from multiple lab service providers. The client for this project wanted the system to interface with Quest Diagnostics Lab.

## About our Client

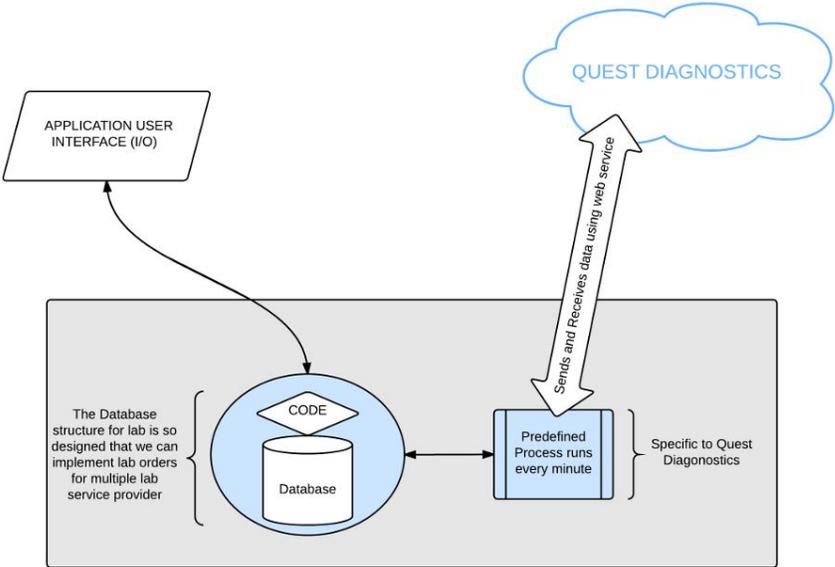
**Client Name:** Confidential | **Location:** USA | **Industry:** Healthcare IT

## Technologies

Laravel (PHP Framework), JavaScript, CSS, Window Service (.NET 4.0), Web Services. The web interface is interactive, responsive and simple to use. It includes client-side technologies like JavaScript, CSS etc. The server-side technologies involve PHP and .NET in the background and make it possible to construct and parse incoming and outgoing messages. A windows service is run in the background to handle both incoming and outgoing lab results from Quest. Outgoing lab orders are sent using web services.

Workflow

Quest Diagnostics Implementation flowchart



Screenshots

Screen 1: Patient Search

Post login every page has a patient search option. Selecting a patient takes the user to the corresponding patient dashboard. There are grids here for each type of patient record.



**Screen 2: Lab Grid**

The lab grid shows the lab tests ordered as well as results received in two different tabs. Clicking on the add (+) button opens the lab order dialog.

lab		results	orders
<b>Date</b>	<b>Orders</b>		
11/26/2014	35167-T4, FREE, DIRECT DIALYSIS		
11/26/2014	35167-T4, FREE, DIRECT DIALYSIS		

**Screen 3: Lab Order Screens**

The total number of screens are 4 in number corresponding to 4 steps .

**Step 1: Select Test**

**Order Labs**

1 Select Test    2 Order Info    3 ICD    4 Questions

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**Select Lab and Test**

Select Lab: Quest Diagnostics    Search Test: test

1005-TEST AUTHORIZATION  
 14966-TESTOSTERONE, FREE, BIO AND TOTAL, LC/MS/MS  
 15983-TESTOSTERONE, TOTAL, LC/MS/MS  
 19958-TESTOSTERONE, TOTAL (MALES), IMMUNOASSAY  
 29893-TEST IN

Test Code	Description	Comments	Containers Collected
1005	TEST AUTHORIZATION		<input type="checkbox"/>

**Next** →

Step 2: Order Information

Order Labs

1 Select Test 2 Order Info 3 ICD 4 Questions

Ordering Provider: Select Provider Bill To: Patient

Worker's Comp Employer's Name  Patient Service Center [Select Insurance](#)

**Specimen Requirements**

Date: 12/23/2014 Time: 01:21 PM

Total Urine Collected: Total Urine Collected In ML Fasting:  Yes  No  Not Indicated

Weight: Weight In Lbs Weight: Weight In Ounces

Height: Height In Inches Tech Details: Tech Details

Comments: [Text Area]

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Step 3: Diagnosis Codes

Order Labs

1 Select Test 2 Order Info 3 ICD 4 Questions

**Select Diagnosis**

Search Diagnosis: 007 [My List](#)

**Selected Diagnosis**

- 001.0-CHOLERA D

007.0-BALANTIDIASIS

007.1-GIARDIASIS

007.2-COCCIDIOSIS ST INFECTION OF COLI NOS

007.3-INTEST TRICHOMONIASIS

007.4-CRYPTOSPORIDIOSIS

007.5-CYCLOSPORIASIS

007.8-PROTOZOAL INTEST DIS NEC

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## Client Feedback

The client was impressed with the technical and execution skills displayed by the team at Mindfire. Daily updates provided through our in-house tool 2MV, during the entire course of the project, was highly appreciated.

