

LIMS – SoW

Version History

Version #	Updated By	Update Date	Agreed By	Agreement Date	Reason
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Purpose of the SoW

The LIMS being mentioned within this SoW is for Saad Bin Khalid, here on after referred to as the Client is being developed and deployed by 82 Solutions from here on after referred to as the Developer has discussed in length the technical skillset and functionalities required to build the solution. This Document underpins the discussions and is termed as final in regards to the Scope of Work as discussed with the Client. Additional components and features also known as 'Scope Creep' will be charged in addition to the cost of the amount mentioned within the Signed Proposal. The ownership of the solution, the code, data and all information within it is the property of the Client alone.

Overview of the Solution:

This LIMS comprises of a mobile friendly and fully optimized front end, back end, data base and API integrations. The solution is intended for the Client to be able to provide LIMS as a SAAS on a per license fee to their customers. The Client will have a dedicated Dashboard and be able to create links for their Vendors (The Client's customers) as well as the ability to access their laboratory/laboratories. The Client will be able to create a URL, along with access codes. The solution will be connected to the devices and instruments mentioned within this SoW, the intent is for the Vendors to be able to gather medical reports generated by the connected instruments, consolidate them and also give access to the patients' (the End Users). The following sections outline in detail the scope covered within this development effort.

Features

- A vendor requests access and implementation from the client.
- The Vendor informs the Client of the equipment used within their labs.
- The Client connects the Developer to the Manufacturer and on ground engineers to access the APIs (APIs and devices included in this Scope are discussed further in this document. Ref: [Integrations](#))
- The Developer then connects the APIs to the front end, back end and Data base of the solution.
- The client then gives access to the Vendor to their personalized Dashboard. With rights and permissions that are discussed further in this document. (Ref: [Roles & Permissions](#))

Client Flow

- The client will be able to generate a URL for its vendors e.g., abclinic.xyzlims.com
- The client will provide a URL to be used.
- The Client will then create a profile for the client including a username (Verified E-mail) and a password to the vendor.
- The Client will have the ability to revoke access for the Vendor.
- The client will have their dedicated Dashboard and their role will be Super Admin.
- They will have the following reports: Number of Vendors, Locations, Aggregate Data from all Vendors.
- Usage of the solution.
- List of equipment's integrated to the LIMS and preferred devices.

Vendor Flow

- The Vendors have the ability to create Users.
- The vendor will use its employees email address and password.
- Two Factor Authentication (3rd Party integration) will be used to verify email addresses.
- The Vendor will then give certain rights to its Employees based on the roles and permissions section of this document.

Patient Flow:

- A link to the patient portal is sent via email and/or SMS
- Patients can also scan the QR code printed on their receipt which will direct them to log in screen
- The username is their Medical Record Number (MRN) and a unique password generated by the system.
- Patients receive the log in credentials through email and/or SMS.
- Once logged in patients can view their current test reports
- Previous tests they got from the lab

Roles & Permissions

The entire system has the following main user types along with sub-users:

The Client (Super Admin)

The super Admin has across the board access to the entire solution. It has the ability to generate new URLs that segregate the database for different Vendors. It also has the ability to stop access for certain vendors. The Super Admin also has the ability to create additional locations for a particular Vendor.

Reports are also available regarding the number of users, locations, and aggregate data on patient data based on vendors and location. This data does not include Personally Identifiable information (PII) i.e., Name, Address and other PII. Examples of such reports include Number of tests conducted separated by gender and age. Super Admin is the only role with the ability to delete medical records, Block access for Vendors, and setup any number of new labs and vendors.

Vendors (Admins)

The Admin receives access from the Super Admin for a URL specifically for them. It has the ability to create specific users with rights and roles as mentioned here under. The Super Admin also has access to reports including, Expenses, Revenues, Number of tests Conducted, Average performance of location, average performance of equipment and equipment down time.

Managers (Sub Admins)

This role is created by the admin, their account will be created by using their email ID and a password that they can change. They can update their profile picture add their phone numbers etc. The Sub Admins will also get an employee number. There is no limitation on the number of Sub Admins (Managers) and Admin can create. Managers can also block/revoke access for Employees 1 & 2

This role will have the right to create and delete Employees (Lab Technicians, Front Desk) they will be able to add expenses, add patients, view equipment performance reports. The super admin will also have the ability to allow or block access to revenue reports for the Sub Admin's specific location. Managers and Vendors will have the ability to issue a new password for patients.

Lab Technicians (Employees 2)

A lab technician can be created by the sub admin or the admin, and similar to the managers any number of profiles can be created, onboarding will be the same way as managers.

This role will have the ability to see equipment performance reports, create patients, view patients report, print reports, print test tube QR codes.

Front Desk (Receptionist)(Employees 1)

The front desk will be created by the Manager they will have the ability to onboard patients, create MRNs, process billing of the patients. They will also be able to create an appointment for patients, to get testing on a later time and date.

Patients

Patients will have access to their Medical Records only, this includes the ability to access their current medical reports and view previous medical reports. They will not have the ability to change their password, apart from the system generated one. They will be issued with a new updated password after a new test is conducted.

Integration

Integration of available APIs of the following equipment:

- Bf6900 Dirui
- CST180 Dirui
- H100 Dirui
- Maglumi 800 snibe

The architecture of the solution will have the ability to integrate with other equipment by connecting APIs. The development tech stack is intended to be highly scalable and be able to connect to other systems such as (TapTap Medic Clinic in the future).

Data Security

Patient Data and PII will be safe guarded to the best available methods, backup servers can be set up based on the same. Special considerations to be made in order to protect Patient Data.

Approval

Client

Date

Developer

Date