Healthcare Mobile and Web Application Development

Case Study

Venolin Technology Pvt. Ltd.

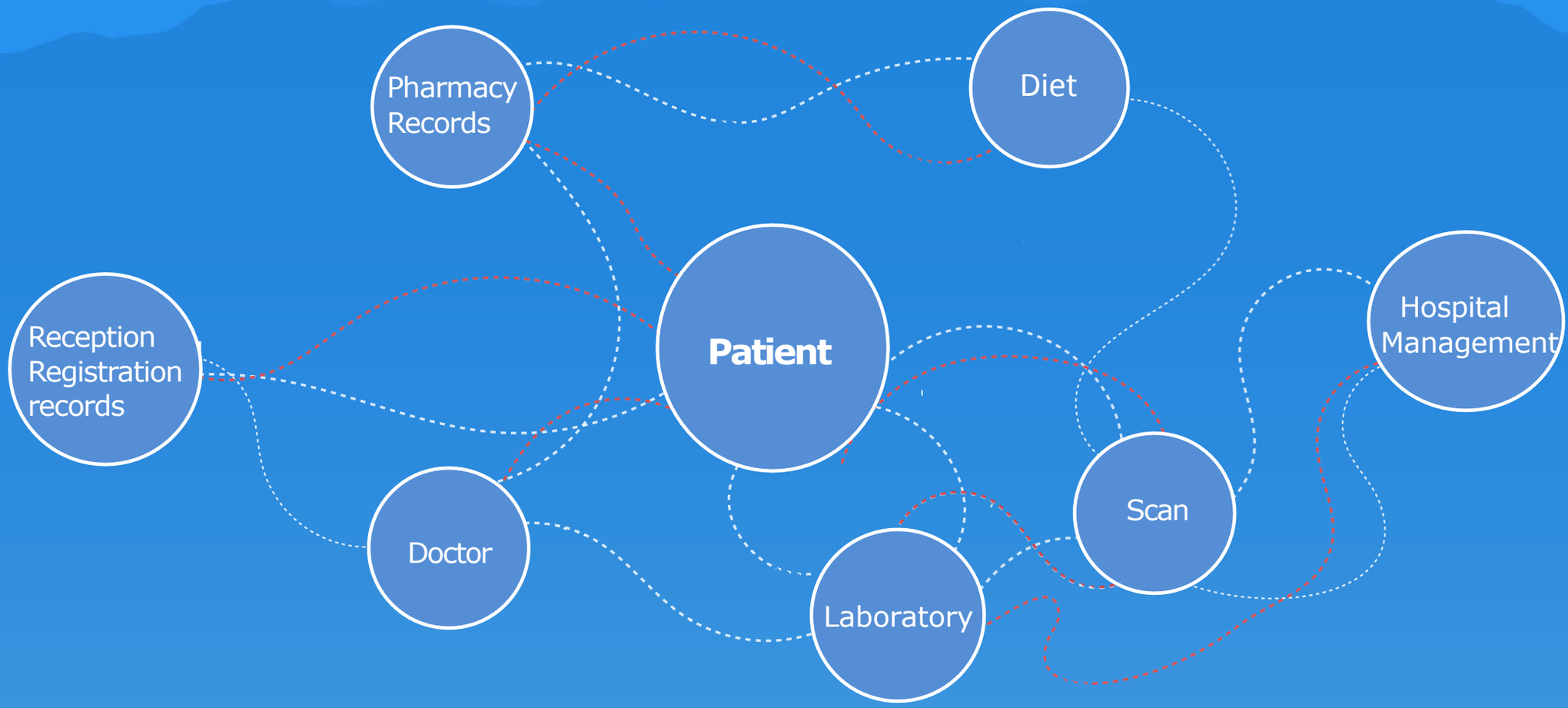
Our Client –

- Leading Multispecialty hospital in South India
- 4 Branches
- 70,000 patient visits so far with footfall of ~600 per day
- Our Solution - Comprehensive Hospital; Management System

Highlights

- App & Web based Solution for Patient Management
- Round the Clock connectivity for Patients with Physicians
- Simplified Processes for Appointment, Consulting, Laboratory/Scan Test, Diet and Pharmacy

Complication with Paper records



- Paper based system for record maintenance.
- Client faced difficulties during scale up
- Cumbersome operations and patient engagement procedures needed to be simplified

Project Case Description

- Digitisation of complete process hither to paper based

- Patient Profile - New, Follow up and Review.

- New - First time visitors through referral, advertisement and media.
- Follow up - patients are the ones who need further clarification/explanation pertaining to their last visit.
- Review - Regular Check up as advised by Physician

Typical operational flow based on the type of Patient Profile

The Challenge

Digitisation – Review of existing process & defining proper operational flow

Security – High degree of security required as application involves access to sensitive patient data including Personal & Financial aspects.

Feature Rich – Being a healthcare application, it needed to be rich in features with user-friendly in design.

Time – Very short time span for transition from existing Enterprise applications

Compatibility – Mobile Application had to be designed to fit for full touch screen, Directional pad interface, QWERTY and Landscape.

Solution

- Work executed by a robust team of professionals proficient in web and mobile application development along with domain expertise.
- A requirement analysis team with healthcare understanding and knowledge of necessary compliance was involved.
- To meet the business requirements, Development was divided into Web application and Mobile App Development. **Web application** would provide enterprise solutions to hospital management, wherein application will be designed for different levels/tiers of stakeholders from reception to pharmacy management. **Mobile App** would be an interactive platform which satisfies the client's requirement for patient engagement.
- Designed a UI which was professional, but also very user-friendly.
- Testers were involved for UI, application installation and functionality testing to ensure quality, performance and security.

Web and Mobile Application Flow

(Hospital Enterprise Management)

Lab and Scan Management

Lab and Scan Billing

Doctor Consultation

Doctor Consultation with report

Consultation Billing

Care

Pharmacy Management

Reception/ Registration

Diet Consulting

(Patient Engagement)

Collaboration

Engage

Web Application Development- Enterprise Management

Reception Management

Billing Management

Lab and Scan Management

Doctor Management

Pharmacy Management

Diet Consulting

Patient Engagement

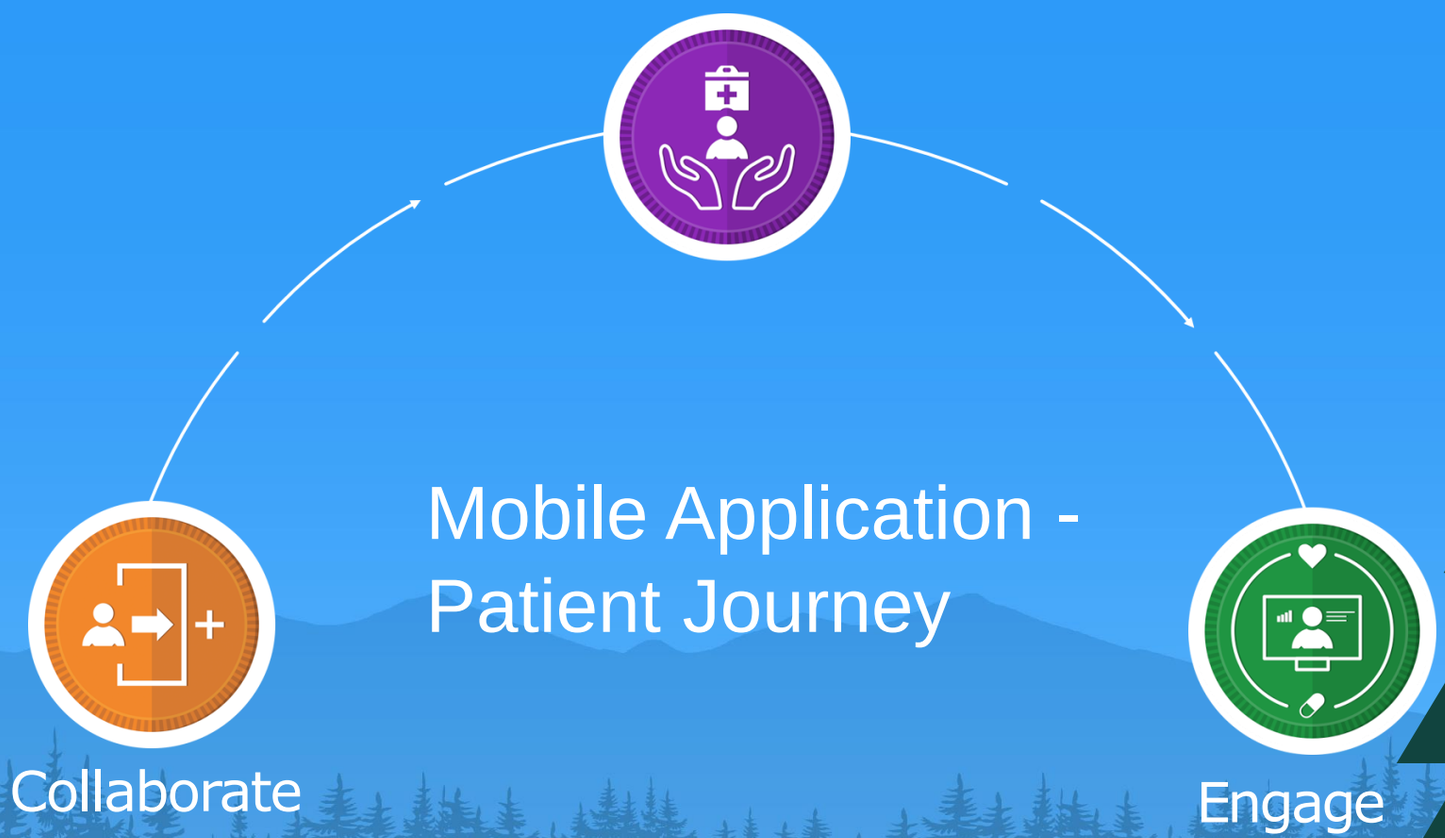
Web application comprises complete progress flow for New, Review and Follow up patients. It consists of Reception registration, Consultation Billing section, Doctor Consultation, Lab and Scan Management, Laboratory billing, Doctor Consultation with Reference to report, Pharmacy Management with billing and Diet Consulting. Data is captured in each stage and proportionally passed on for the next process.

Mobile Application Development

Patient will access the client's mobile application using their Patient ID/Mobile Number. The app has the following sections:

1. **My Profile**
2. **My e-Book** (Their complete medical records with respect to every visit
3. **Book Appointment** (They can book appointment for direct visit and online consulting. Online consulting is via Chat or Video Consulting)
4. **Get medicine** (They can place orders and get their medicines online)
5. **My Lab Report**
6. **Organic shop** (The client is selling organic health product as well)
7. **Health blog** (Personalised feed with recommended health videos and blogs)

Patients would also be notified to take appropriate medicine on time and reminded to follow their advised diet. The information from the users is collected and shared with the respective doctors, to help them provide better care to their patients.



Fact Sheet

Web Application

.NET MVC Application
Angular MVC
Web API
Entity Framework
MSSQL
Angular Material
MD Bootstrap

Team:
Project Coordinator - 1
Healthcare Expert - 1
Full Stack Developer-2
Back end Developer-1
GUI Developer - 1
QA Tester - 1

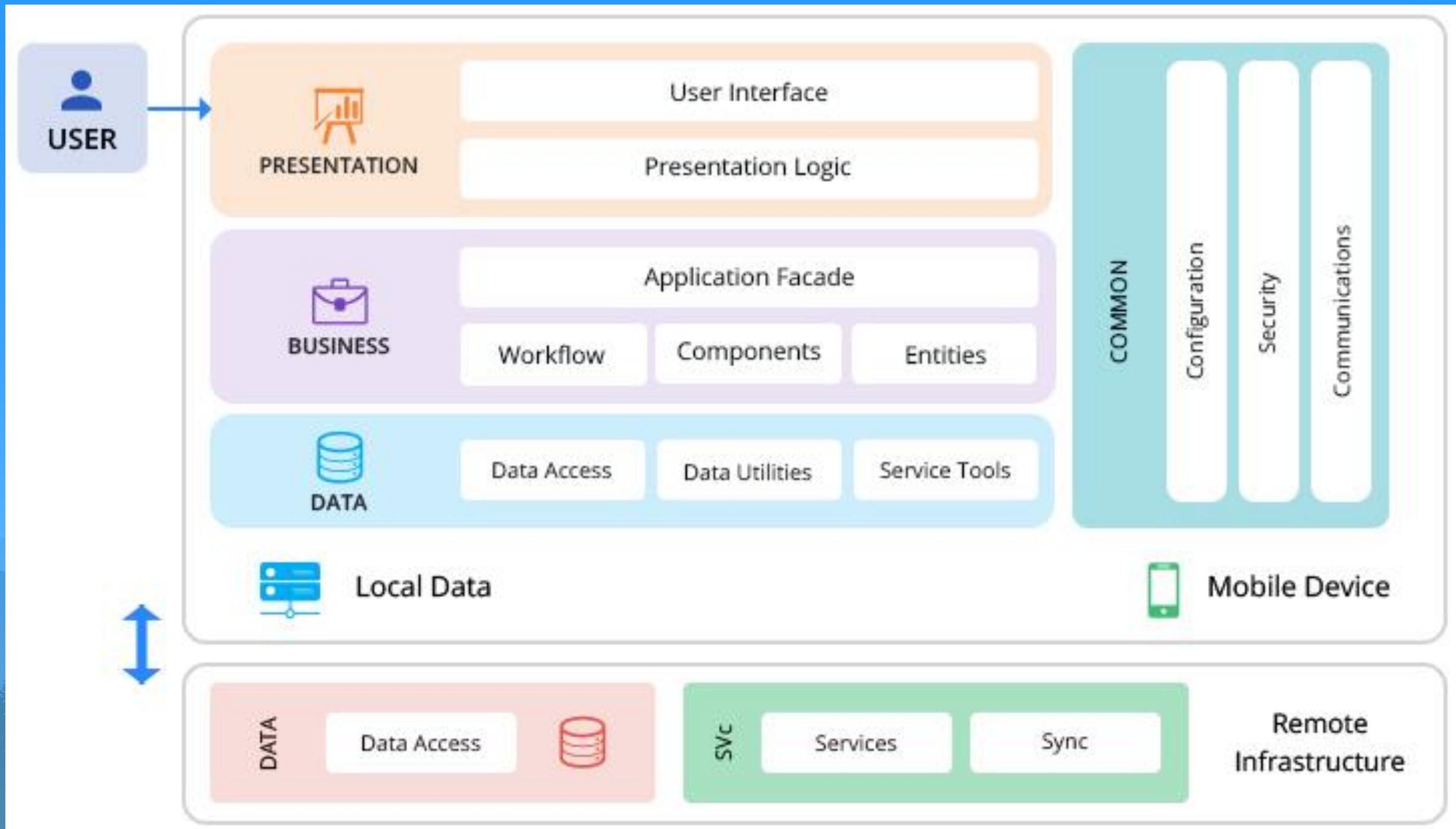
Duration
5 Month
Support - Ongoing

Mobile Application

Apache Cordova
Ionic Framework
Web API .NET MVC
MSSQL
JavaScript
HTML5
CSS3 Mobile Web SDK
WAP, WML Script
GPS, Push Notification

Team:
Project Coordinator - 1
Healthcare Expert - 1
Mobile App Developer-2
GUI Developer - 1
Mobile Tester - 1

Mobile Application Architecture



Client Benefits:

- With Venolin’s quick & robust development client’s time to market was less and that helped in getting positive end user reviews.

- Web Application has helped client to digitise their complete enterprise operations and increased productivity at all levels of stake holders.

- “Patient’s Average Wait time in hospital” feature has helped improving their service and it constantly helping them to reduce the lean time during patient hospitalisation process.

- Mobile Application Solution has helped increasing patient engagement. There by most of patient getting their doubt clarified in a click of a button.

- Patients are also getting benefited with robust notification system. Mobile application is like doctor’s assistant and caring parents in real time.

About Venolin

The complete business package! We help you with everything your business would need to craft its path of success.

- We are a bunch of people that love technology and are passionate about helping business, young and established, achieve what they set out to achieve. We are driven by your success and motivated by your growth. And that's why, we stop at nothing, but only at what's the best for your business!

- Finding the right people to join you in your journey. Marketing your business. Building your brand. Providing more value to customers through mobile app / web applications. Leveraging cloud for increased management efficiency(CRM) and operational excellence(ERP). We do all that, and much more!

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