Radionome – Imaging study web app

USA based
Healthcare startup

Case Study

Client Overview

- North America based Experienced physician
- Extensive practice in neurointervention and neuroradiology
- Healthcare Startup for Imaging studies

Current System

- CD/DVD bought by patient is copied by the doctors office staff to common drive
- Takes about 30-45 mins to copy the data
- CD/DVD sometimes unreadable
- Sometimes CD/DVD drive not available in doctor's office

Methodology

Business Goals
Value proposition
Prioritisation

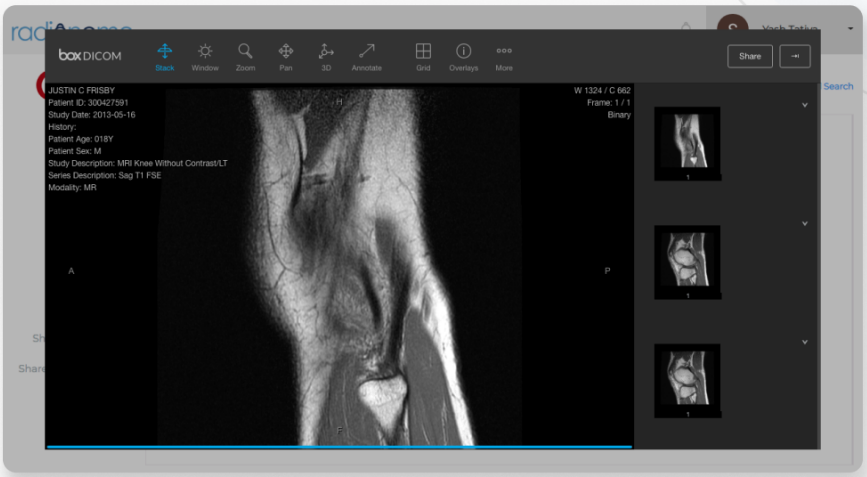
Requirements
Scope definition
Wireframing

Technical design
Technology stack
Application architecture
High level technical design

Project Planning
Epics
Stories
Tasks

Execution
Milestones
Sprint planning

This helped the client to identify the shortcomings at early stage of development



Our Solution

- Developed Secure, Simple and Scalable cloud based web app to upload imaging studies -Dicom, Radonc files from users location.
- KISS (Keep it Simple, Stupid) Design principle was adopted for the broad spectrum of patients and hospital as end users.
- Bulk upload of files in background - (in 1000's) and size (in multiple GB's); enabling user to continue using other app features.
- System auto-detects the body part and modalities from the metadata. Creates respective folders. Filters out non Dicom files.
- Imaging study viewed online on mobile or desktop. No need to download locally.
- Ability to copy, share over email / phone; Track user activity log.
- HIPAA, FHIR, HL7 compatible.

Why Google Cloud

01 Reducing development time by atleast 30%- 40%

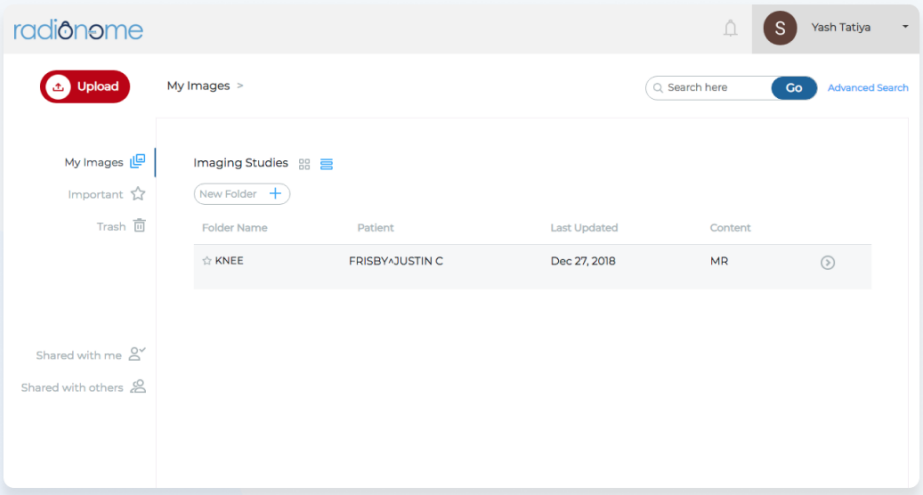
02 Development cost reduces almost by 40% - 50%

03 No server administrator or DevOps required

04 High Availability, Uptime

05 0% personnel investment required for server hardware, OS, Security management etc and its upkeep.

06 Pay per use reduces clients' monthly recurring cost.



Node.Js

Flutter

Firestore

Tools & Technologies

- Serverless architecture on Google PAAS
- NoSQL database Firestore
- Cloud Functions developed in NodeJS
- Front end built in Angular JS
- App developed in Cross platform open-source mobile UI framework - Flutter

Business Impact

- Doctor no longer waits for the imaging data to be retrieved from the CD/ DVD.
- Ease of sharing with peers, colleagues, for second opinion.
- Data available for lifetime.
- Further integration with PACS, blockchain possible.

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