# Sample Project:
## Generate & Email Performance Reports to Medical Practitioner

ALBERT NERA

# Overview

My Role: Oversee as Project manager, the **quick development** of a **web application** that would **generate a report** summarizing key **performance metrics** for paid practitioner profiles listed on both WebMD.com and Vitals.com.

# Project Kickoff: Key Business Considerations

- Upper management expected turn around of no more than **6 weeks from ideation to launch**.
- The application would need to **accurately aggregate data points from different metric sources.**
- Client services would need to have the **ability to lookup and select metrics** for multiple profiles and **generate a single comprehensive report**.
- Reports would need to be provided to the practitioners in a quick and **accessible format**.
- Managers wanted access & ability to oversee daily use of the application (ie: User logs).

# Project Kickoff: Key Technical Challenges

- **Product managers + designer resources** would be limited and unable to actively help with **UI design and planning.**
- **Developer resources** were going to be limited and had to be shared across active projects.
- **APIs were not yet available** to pull the *raw* data metrics from discreet sources in order to generate the comprehensive reports.
- The Web App would have to be **scalable**; allowing for growth in data processing and future functionality expansion.
- **Personal information** such as names, email addresses and other contact information would need to be **securely accessed and stored** within the application. Web App had to meet company standards for data protection and legal liability.
- As a brand new web app, we needed **architecture planned** and **server + database volumes allocated** from Network Operations then configured to project requirements.

# Outcome

- I worked closely with developers and business team members to **design the architecture and UI**.
- For version 1.0 we went with a simplified **“Wizard” UI** that would be quick to develop and relatively easy to use.
- We also focused development efforts on building just the core functionality and UI needed to launch and start early limited use of the web app.
- At initial launch, access to the web app was limited to key members of the Client Services team and I provided one on one training on how to use it.

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# UI Draft:

I (Albert) created this initial design concept to begin brainstorming ideas for functionality and UI direction.

*This UI would have been a single page web application. As the user completed each action from top to bottom, the next step would be revealed using javascript.

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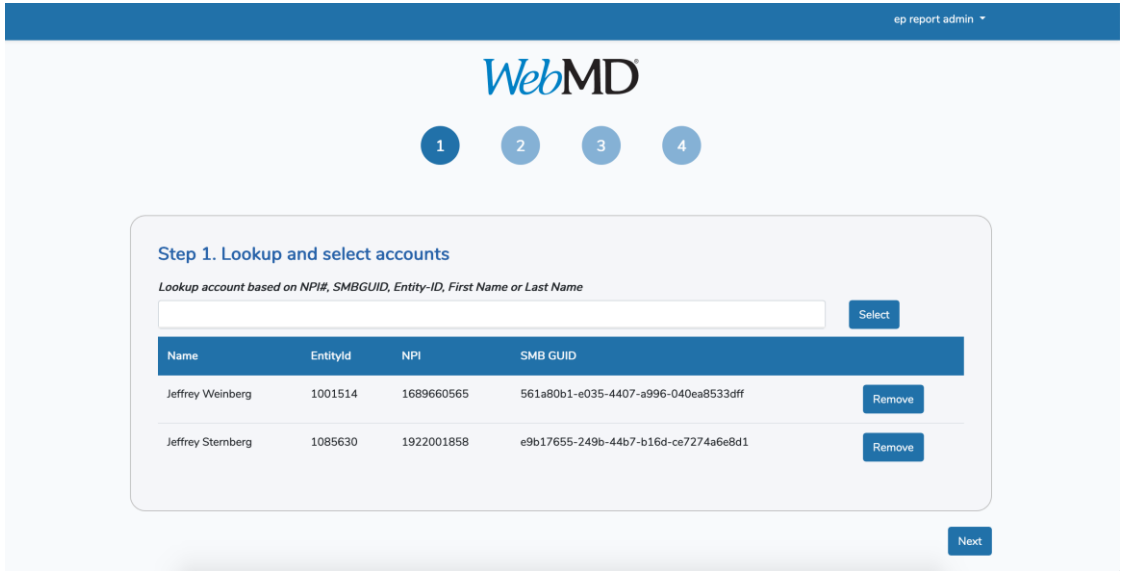
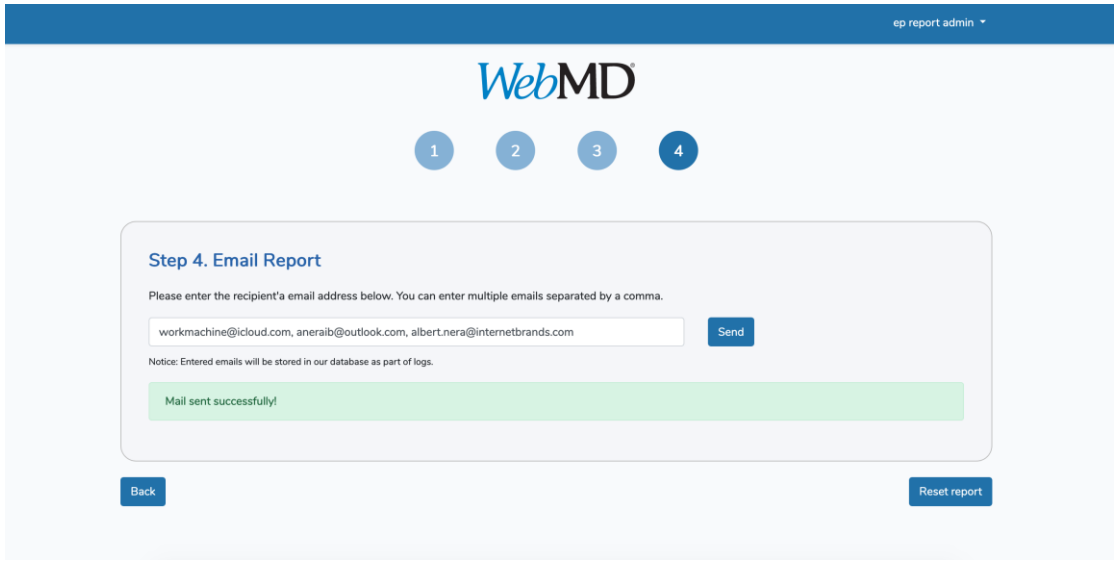
# Version 1.0 UI Sample

*I (Albert) designed this UI for v1.0 of application with some input from a front-end developer. Through the development process, the UI was further refined based on Quality Assurance testing, demo feedback and any technical blockers that came up.

Top-right: (Step 1) Lookup Profiles.

Bottom-right: (Step 4) Send generate report via email address.



# Outcome (Continued)

- We used the Laravel PHP framework, Vue.js and Bootstrap to quickly build upon the well-structured code of these frameworks & leverage the ongoing support provided to keep these frameworks compatible with web standards  and secured.
- Applied database optimization techniques for indexing data so that data lookup will be efficient and scalable.
- Stored all data in an encrypted database volume that has been certified to meet security standards.
- Utilized SendGrid APIs to email out reports to practitioners and leverage the built-in tracking tools for open rates, email clicks and bounce rates.

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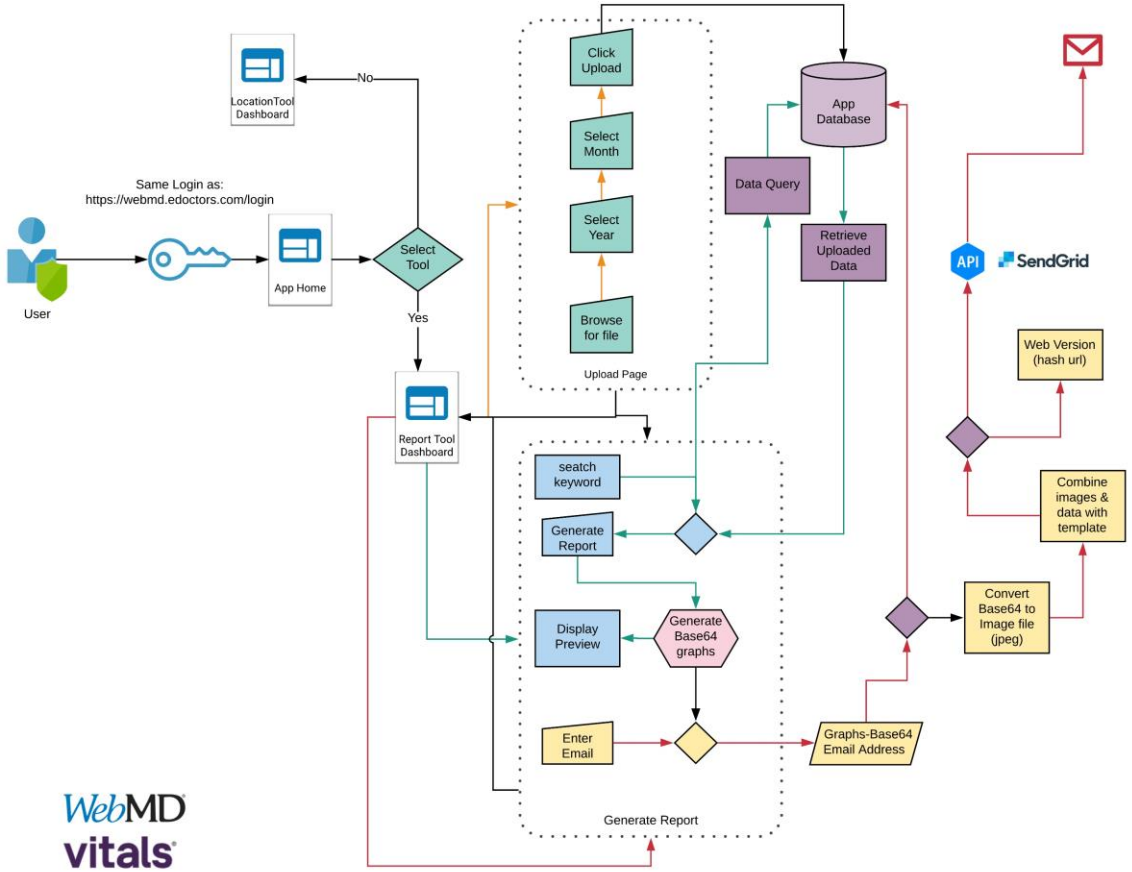
# Architecture Diagram

This diagram I (Albert) prepared helps to visualize the web application's general architecture. It was used to help the team understand the backend infrastructure and was used in discussions regarding allocation of network resources and the management of data within the app.

This web app was built using Laravel PHP framework alongside the Vue.JS framework for UI functionality. We also leveraged SendGrid APIS to process automated emails to clients and admins.

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# Outcome (Continued)

- Provided senior managers the ability to manage user accounts and monitor usage through activity logs.
- Forced all users to use strong login passwords made up of letters, numbers and special characters, as well as implementing the use of multi-factor authentication.
- Additional feature updates based on business needs and user feedback would be released in future iterations, beginning with UI redesign in version 2.0 scheduled for an end of summer 2020 release.

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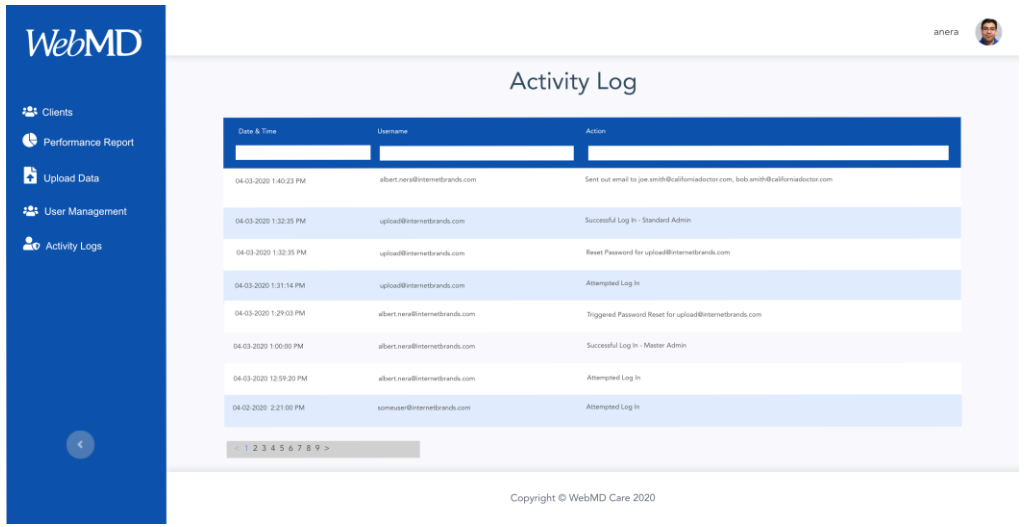
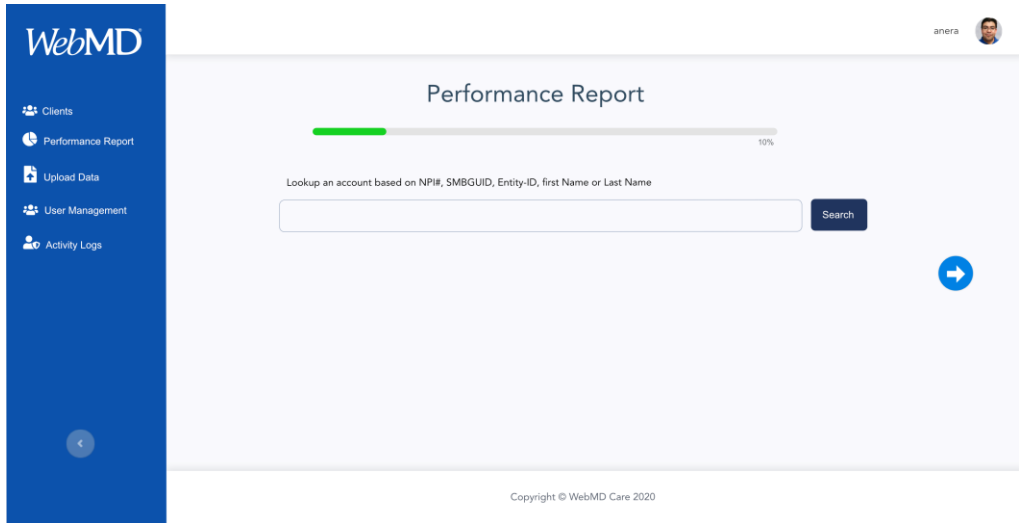
# V2.0 UI Redesign: Concept

*I (Albert) designed this UI concept for v2.0 of the web application. The new UI would accommodate new features required by our busines team/stakeholders and the company's legal compliance team. It would also provide improve usability based on user feedback of version 1.0.

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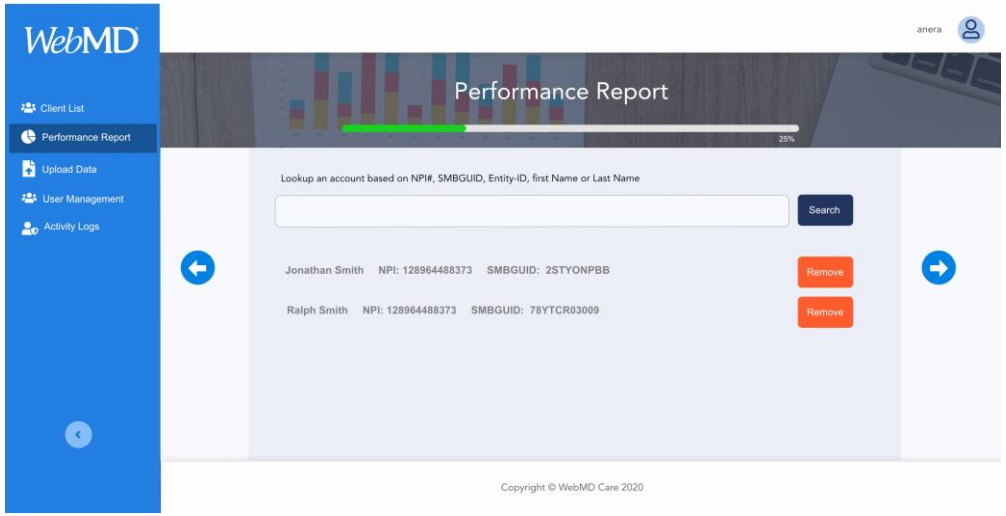
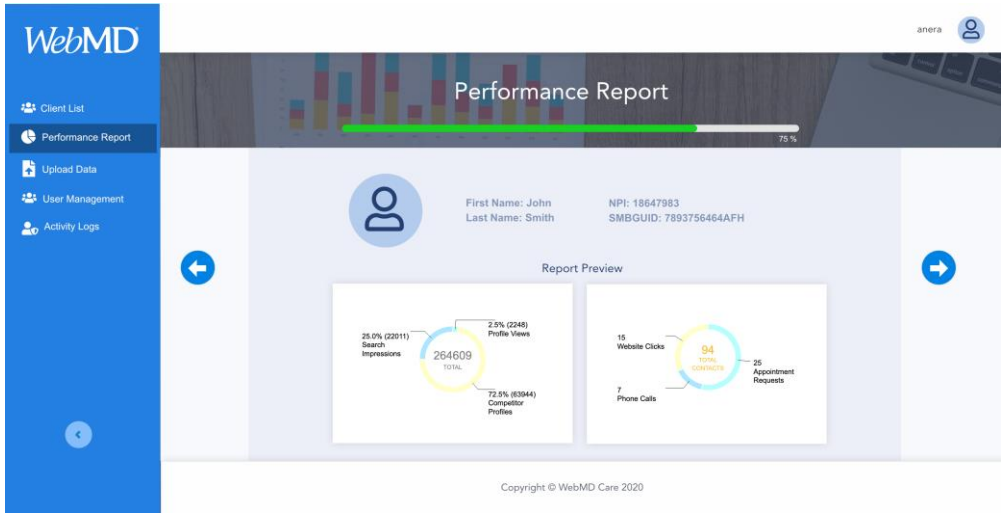
# V2.0 UI Redesign: (Final)

*Beginning with my initial design concept for v2.0 plus additional refinements based on input and feedback from my dev team and stakeholders, this final design for v2.0 UI began development and was scheduled to be released by end of summer 2020.

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