# 3380 Project Proposal

Names:
Connor Hummel
Sun Lee

GITHUB REPO:
https://github.com/Takonas/3380-Hummel-Lee

# Proposal for Health Database for Personal and Professional Use (HDPPU)

Table of Contents



## EXECUTIVE SUMMARY

In the modern day and era, it has become increasingly more difficult to keep up with the sheer volume that is record-keeping. In most cases, people are more likely to become dependent on specific organizations or people to maintain and keep track of record-keeping. This creates a need for increased bureaucracy for the human element so individuals have the ability to request their necessary documents from proper authorities.

Our targeted customers and potential clients would be those interested in long-term accessibility and availability of medical records in a standard format. This service was initially envisioned

towards the individual. However, it can also serve as a manner for which doctors or other physicians can achieve access to necessary documents without massive delays.

Currently, there are several independent databases out there for specialized purposes that can act as a form of competition. Most of these remain small and unable to spread across a wide market for mass-standardization. This makes most unable to be utilized by the general public and the medical community simultaneously to any large or meaningful extent.

Our solution wishes to address this issue by making a health database that is more accessible to the general public. People should be made able to view their health records from any location able to be connected to the internet. Additionally, this should be able to be done securely and with ease of use.

Development will be conducted through whatever open source and other systems are made available. While this reduces costs to a certain extent, it should also be done through confidential or trusted systems in relation to security.

---

## GAP IN THE MARKET

Currently, the market depends on that of custom-built solutions for specific purposes. This increases the cost for individual clients and organizations while also limiting its accessibility. Subsequently, the market lacks any large numbers of databases that will seek to offer availability towards general use by the population in any capacity.

Our product would be more suitable to the needs of the general public. By focusing on simplicity, security, and accessibility, this will make it an appealing prospect to individuals and organizations. Our proposal of having more accessibility will be one that potential clients will wish to associate with in addition to the other features offered.

---

## MEETING THE MARKET’S NEEDS

The market needs will be met by our product through the provision of a secure and accessible alternative to the many current systems used. Our goal of creating a product that is made for simple access and use will allow for the product to have a wider availability to the market than before. Additionally, the further development of the application will bring forth the possibility of using it for more specialized needs which should prove more profitable in contrast to modifying a specificized product to a public one.

---

## IMPLEMENTATION

**Management**
It will be managed by its contributors.

**Development**
It will be developed using open source technologies.

**Marketing and Distribution**
The basic product will be made available for free. Variants will be made available through contracting with the contributors of the software. Distribution will be achieved through a browser to make it more accessible.

**Monetization**
Monetization will be achieved through supplying government contracts and by providing variants of the product that are specified for private users including healthcare provisioners, insurance providers, and other private groups. The provisioning of the product in a subscription format may be considered if this doesn't prove profitable.

---

## THE PROBLEM AND OUR SOLUTION

The problem with the current solutions on the market is that they are too specific to an individual set of needs and are expensive to modify to be implemented on a mass scale. This creates the situation in which cost outweighs the potential to make a product that will aid ease of life. The solution to this problem is a generalized, simple, and easy to access program for the general population.

---

## INDUSTRY NEED FOR OUR TECHNOLOGY

This solution will end up becoming the primary supplier for health database needs. The need for multiple different databases communicating, therefore creating more vulnerabilities, will be reduced by combining them. Cost of maintaining the resources to keep the system running would be reduced.

---

## MARKET ANALYSIS / PRIMARY MARKET / SECONDARY MARKET

The main competition would be government health databases like healthdata.gov or the National Library of Medicine. Since they're backed by the government, they're established and have strong security measures. Our goal is to show that health information doesn't have to feel

archaic and so formal. We want to make it simple and easy to use for those who aren't used to health databases.

The primary market will focus on hospitals for their numerous patients. The secondary market will focus on individual patients.

---

## MARKETING STRATEGIES

**Overview**
We want our product to be used by all individuals, whether they have experience in healthcare or not. We want it to be very user-friendly as the main selling point, so individuals would be able to do everything themselves without the need to consult hospitals.

**Primary Customer Analysis and Entry Strategy**
The strategy to enter the market is to highlight the product's ease of use. We could give initial free month-long trials, then utilize subscriptions to make profit. We're hoping that the combination of its easy interface and initial free trial will convince clients to keep using the service.

**Core Competency**
The core competency of this service is that it's significantly easier to use than its competitors and just as secure. When many people think of health or database services, they think of archaic and slow interfaces, but our service will feel fresh and quick.

**Sales Strategy**

**Pricing**
People will get a free trial for a limited time when first using our service. After the initial free trial, they will have to subscribe to the service either monthly or annually. We could offer hospitals significant discounts.

**Positioning**
We plan on designing this service to be useful, convenient, and easy to use for anyone who wishes to use it.

**Promotion**
We will use various strategies such as direct contact with potential clients and social media. Social media is especially important as word can spread very quickly and widely, especially with younger generations.

**Place**
This service can be run from home.

## COMPETITION

The primary competition will be government-funded health databases like healthdata.gov. People are more likely to rely on the government over private parties.

There are also private health databases, many of which are backed by universities or research labs.

---

## DEVELOPMENT STRATEGY

In the seed stage, we will have a working prototype that will generally resemble the final product. As ease of access is vital, it needs to look good early on.

In the startup stage, we will allow a number of people to utilize it to generate interest. At this point, it should look almost final and be decently secure.

At the development stage, it needs to work and look flawlessly so people can instantly realize how easy it is to use. The security needs to also be strong at development so nothing is breached early on.

---

## BARRIERS

Some barriers are:

- Getting people to transition to using our service
- Making the service user-friendly but also detailed
- Ensuring strong security with high-end encryption algorithms
- Advertising the practicality of our service

---

## CRITICAL RISKS

The biggest risk is probably that customers will not trust their private health information to a new and private service. As a lot of databases are backed by well-known organizations or the government, it will be difficult to gain that initial trust. At the beginning, we will need to prove just

how secure our system is to attract potential customers. If there is a breach or leak in the early stages, it will be near impossible to recover from it as it is so new.

Another risk is customers might not want to move their health information onto our database. So we will have to create a process that feels seamless and easy to use. Or we could potentially have a paid service to transfer their information for them.

---

## INTERVIEWS

**Please keep statements brief, if possible. (All interviews were face-to-face.)**

**What is your name?**

8 Responses (private)

**Would you consider yourself healthy?**

1. Yes
2. Yes
3. What do you consider healthy? [No serious chronic issues or other similar harmful conditions.] Then yes.
4. Yeah
5. Yeah, I guess
6. Yes
7. Yes
8. Depends on what healthy is. [No concerning health conditions that would affect you now or in the future.] Then yeah, but I could be a little healthier

**How do you manage your health?**

1. I keep paper copies.
2. I get copies when I go to my doctor.
3. Normally, I talk with my doctor.

4. I keep physical records from my doctor visits.
5. I just kinda take care of myself. Haven’t gone to the doctor in a while.
6. I get a check-up like every so often.
7. I eat decent and work out and stuff.
8. I just ask my dad since he’s a doctor or whatever

**Is it easy to access (yours or other) health records?**

1. Yes
2. My health records are available.
3. I don't access it very often so I can't really say. [Have you had issues in the past?] None that I can remember.
4. I have to get copies that I don't have sometimes. I don't have many issues.
5. I haven’t really tried to.
6. Yeah my doctor has them.
7. I never really have so not sure
8. Yeah my dad has everything for me

**Is your health recording method slow, inefficient, or otherwise inconveniencing?**

1. No
2. I lost some documents in the flood.
3. I can't really get access to my records if I'm not at home.
4. The only issue I can think of is when I don't have the record and I have to get it from my doctor's office.
5. I don’t really know

6. My doctor does it so I’m not sure.

7. Never recorded it myself, but my doctor is kinda slow, so his recording is slow

8. I don’t record my own records, but my dad does it with no problem

**What features are you looking for? [Additionally rephrased as “What features would you wish to see in a software program to help with health records?”]**

1. I don't know

2. Could you explain what you meant by features?[Sorry, I mean, what would you wish to see in an application that helped with keeping health records.] I want to be able to upload my own documents. [So custom uploading of information and all that?] Yes.

3. Online availability and accessibility. [Would you classify ease of use as a feature?] Yes.

4. I want it to be secure before anything else. [Would you say security should be the number one feature of this application?] Yes.

5. I want it to look pretty.

6. It’d be cool if it was simple, but could be more detailed if you want.

7. It could give suggestions on how to improve health even further y’know. Like eating certain foods or exercise or stuff.

8. It should be really easy to use for someone like me, who knows absolutely nothing about health or medicine or anything like that. Like I shouldn’t need to ask my dad how to do it.

**Would you be interested in this? [Additionally rephrased as “Would you be interested in a software program to help with health records?”]**

1. Yes

2. Yes

3. Maybe

4. Yes

5. I guess yeah.

6. Yeah, it could potentially help me in the future.

7. Heck yeah
8. Yes

---

## CUSTOMER DISCOVERIES

Through the interviews conducted among the market population, we have discovered several opinions, experiences, or other views that should shape the way we bring our product to bear. People currently keep physical copies or ask their doctor. People would like an online, trusted format but lack options. People are interested in the concept mainly because of crisis (flood, hurricane) damage. The system needs to be secure and has to have ease of use in an online format. Furthermore, some portions of the potential market are actually untapped because they don't actively consider the concept of record keeping so informing them that our service exists could increase our market share.

On this note, it can be stated that the previous ideas that the general population are dependent on specific organizations and groups, using inefficient means in doing so, because no proper alternative is available. This makes a well-developed health database a valid option for which the population would actively consider as a valuable product. However, we must consider that this system needs to be able to survive possible crises and be secure in doing so. This means any networking and hosting services rendered for this product must be done from locations less prone to natural weather, negative human interaction, etc.