Doctonic

1. Case study

As the world sunk into the current crisis, we as a species proved our ingeniosity and ability to adapt and overcome any situation. Thanks to our technological advances, we managed to face a pandemic and continue our lives almost normally despite it.

One of the domains most affected is healthcare, where face to face meetings were crucial. Doctonic could be a solution to help adapt to the current situation, where physical interactions have to be limited drastically. It is an application which can ease the communication between patient and doctor by using an online chat.

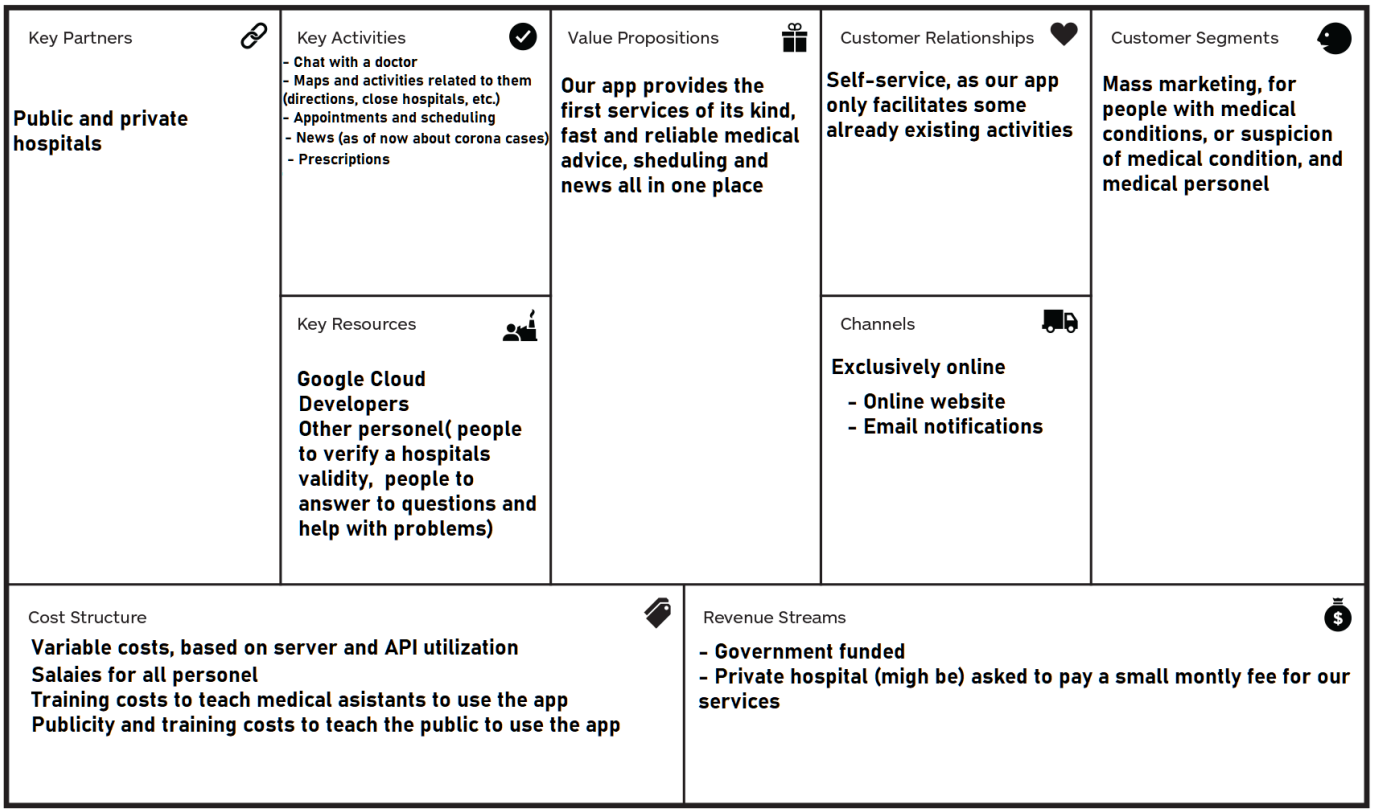
Such applications have been attempted before. One example is the Baidu Medical Chat Bot. As the title suggests, the patient communicates with a bot via multiple answer questions and based on the information provided, it computes a diagnosis. Another example is Better Help, which is focused on mental health. Upon putting the patient in contact with a therapist, they can have one on one therapy sessions via chat.

Both applications mentioned above lack in the quality of the personnel provided. While one is artificial intelligence which can compute a diagnosis only based on limited criteria, the other one can have any user present themselves as a healthcare provider, neither of which are ideal situations. Doctonic works only with specialised and registered doctors so that it can offer the optimal level of trustworthiness for the patient.

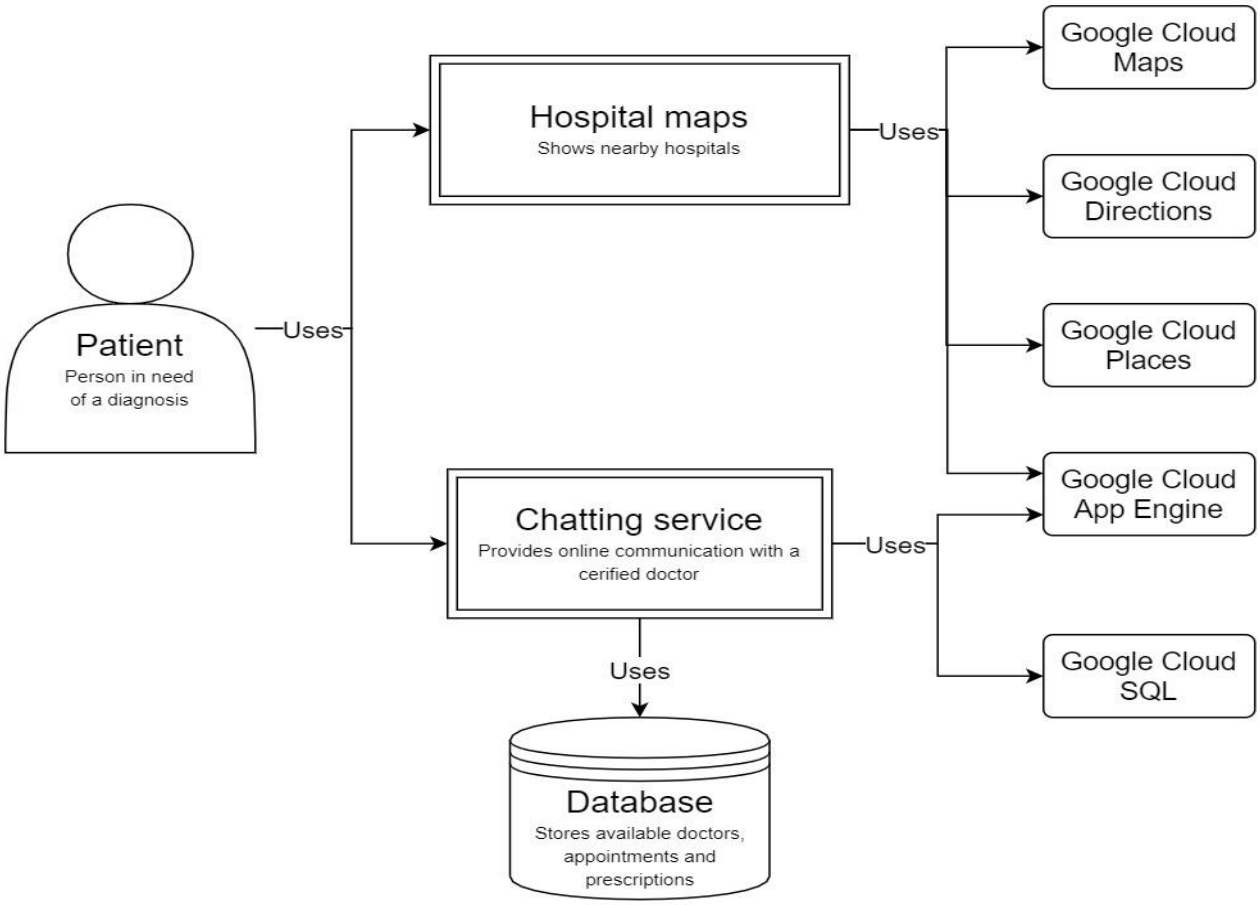
2. Used technologies

- **JavaScript** – used both on the frontend and on the backend as the main language
- **HTML** – used on the frontend
- **CSS** – used on the frontend
- **NodeJS** – used for the server
- **ExpressJS** – used as a framework for the server
- **Google Cloud Maps API**
- **Google Cloud Places API**
- **Google Cloud Directions API**
- **Google Cloud SQL** – for the database
- **Google Cloud App Engine** –running our main instance of the site, fixed size
- **Google Cloud Logging**

3. Business canvas model

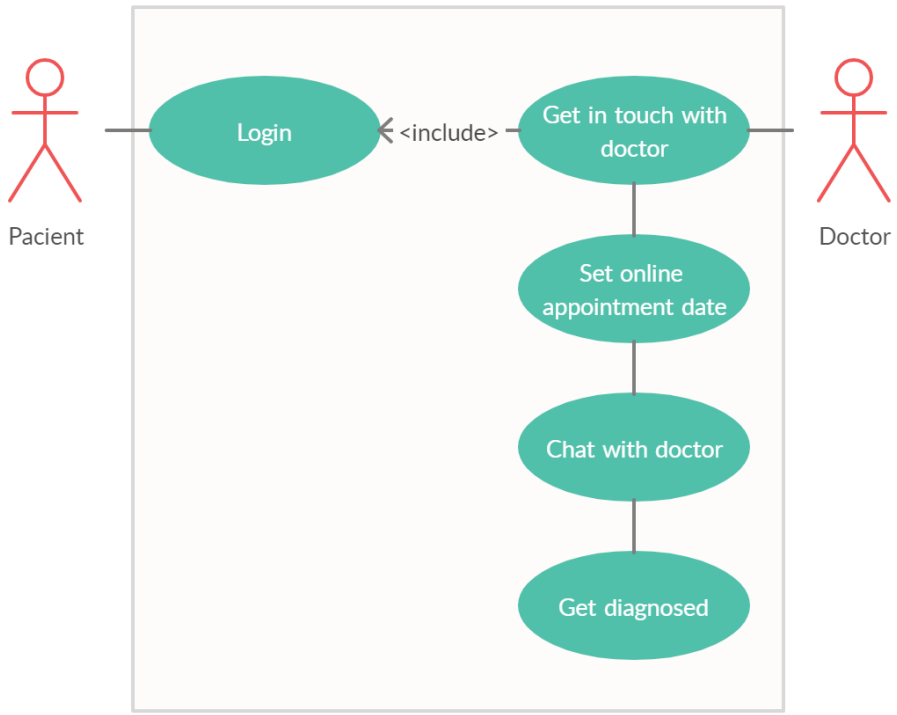


4. Architectural diagram

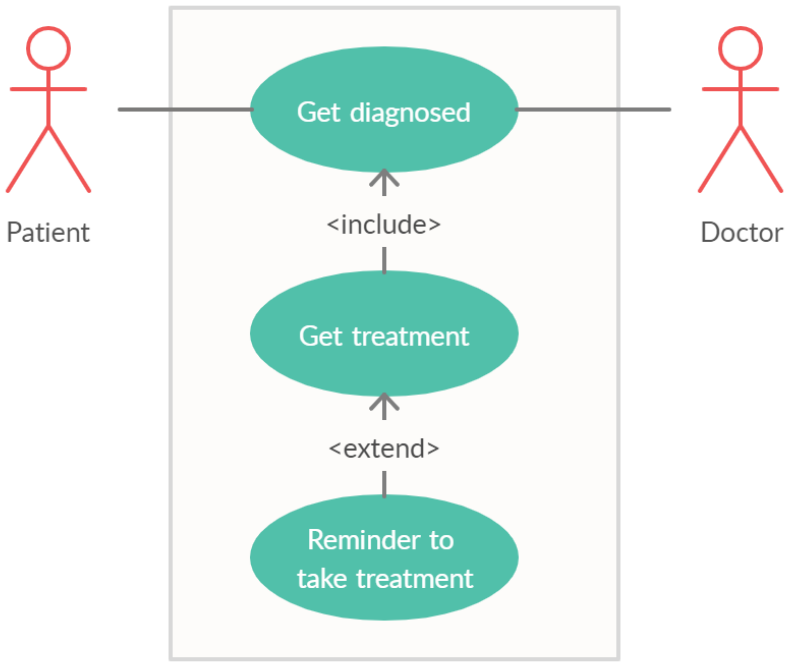


5. Use case diagrams

- being diagnosed



- getting treatment based on diagnosis



- making an appointment with a doctor