Lifeline

Design Document

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Our project is comprised of 2 raspberry pi’s and 2 phones in hardware, and in software, we use an external texting API in python, an IOS jailbreak tweak written in Objective C and Theos, a website written HTML, a database written in SQL, and the operating system FreeBSD for the raspberry pi’s. All these different language components are linked together with BASH. We used two raspberry pi’s because we wanted two secure servers to hold and access the data. Originally the idea was to use OpenBSD, but as it would not work on the aarch64 chip in our pi’s, FreeBSD was downloaded instead. The texting API had to be in python, as Java does not work on our pi’s. The rest of our time after these decisions was debugging and implementing our designs.

After this class, our intention is to add more features to the widget, add another button that would both send the SMS and call 911, and one more that would be a digital medical card that would display name, id pic, blood type, organ donor status, and allergies. We intend to add java script to save data from the website to the database. Port the widget to android and future versions of IOS if allowed.

Even though there is not a line of java in our project, we did include an external API for a very important part of our code, as well as the collective use of 6 different coding languages.