Riskiest and most important use cases of Activity Tracker should be fully dressed for D1

Include a glossary

Vision: how far will our software go

Powerpoint: scope definition, prototype of UI screen

10-20% use cases during inception

Risk list/plan: privacy

Supplimentary Information: FURPS, etc.

Election software FURPS Requirement Model:

**F** – Allows the user(s) to vote for their desired candidate(s), and then save said votes to the system. A unique user cannot vote in several sessions.

**U** - Software uses a Graphical User Interface to allow users to easily cast their votes with all information provided electronically through a digital screen. Information on screen is presented clearly with a white background and black text to help colorblind users vote. A staff member helping the election process the day(s) of voting must certify a user as a legal citizen who can vote.

**R** – The software will never fail on its own as long as the voting machine in use has the specified minimum required hardware and software without any lag, hitches, or crashes. Once a user finishes their voting process, they simply logout for the next user to start their voting process. The program can be opened and closed at any given time but will not save any unfinished votes.

**P** – The performance of the software can handle many users voting at the same time, adding to the database dynamically after saving their votes. The software is available to as many voting machines that have the software on them. The maximum throughput is the dependent on the speeds of the voting machines running the software themselves.

**S** – The usage of java as an object-oriented programming language helps ensure longtime support of our election software with increasing amounts of voters and maintenance of the code. Developers of the software in the future can add different language translations and candidates to vote for when using our software.

Implementation

**System Requirements:**

jre 1.8.0\_201

Installation of Java 8

OS compatible with Java

Open-Source Software requirements.

The voting machines running our election software need at least Java version 8. Alongside Java 1.8 SE, the voting machines need Scenebuilder and JavaFX installed to run the graphical user interface of our software. An operating system such as Windows 7 or higher, Mac OS, or Linux 13.0 installed on the voting machines with our software is recommended for an easier setup for running the election software.

An additional software we could use is ElectOS by OSET Institute to bypass usage of Windows, Mac OS, and Linux.

PostgreSQL is an open source database software that would be used to manage the user input data for the activity tracker system. An essential component for reporting the graphs of the user stats.

Purchased Hardware requirements.

A monitor with cables to connect to a machine running our software on. The machine running our election software itself. The machine needs to have a minimum of 126 MB of Disk Space for JRE (Java Runtime Engine); 2 MB for Java Update. Minimum of 128MB of RAM. Minimum specified processor to run our software is at least an Intel Pentium 2 266 MHz processor. A keyboard and mouse connected to the voting machine is required in order for voters to select their desired candidates and help setup the voting software on the voting machines.

Legal Issues

**Voter Suppression:**

The issue of people, whom are completely qualified to vote, being barred from doing so or forced to vote against their own interests. This can result in heavily skewed election results and is a major problem in burgeoning democracy’s and dictatorships. Examples of this include the 2014 election of Kim Jong-un to the Supreme Peoples Assembly in North Korea. Kim had a “unanimous” vote of yes and an unusually high voter turnout, but most experts believe his subjects where intimidated into voting for him.

**Insuring the ineligible don’t vote:**

Insuring the eligibility of all the voters in a district is key to ensure that the election results can’t be contested in the future. While these laws have been called suppression by some, we must still uphold them in order to insure the security of the election. People ineligible to vote in South Carolina include: non-citizens of the United States, people under 18, people whom are not residents of South Carolina, people confined to public prisons due to the commitment of a crime during the election, felons, people considered mentally incompetent under a court not be under a court

**Voting Fraud**

Whether foreign or domestic, people know that the best way to destabilize a government is install a leader sympathetic to their cause. This can severely harm the nation that is being manipulated and can breed distrust between the people and the government. A recent example of this would be the current claims that there was voter fraud during the 2016 US presidential election. Just this claim has caused a great schism in our nation right on the party line, and it hasn’t even been confirmed.

Glossary

**Account Information** — A ballot filed by a voter who cannot be physically present at their polling place on Election Day. Absentee ballots are often filed by people who are living abroad, serving in the military, traveling, or attending school in a different state than their legal state of residence.

Sources:

PostgreSQL. “PostgreSQL: The World's Most Advanced Open Source Database.” *PostgreSQL*, The PostgreSQL Global Development Group, 1996, [www.postgresql.org/about/](http://www.postgresql.org/about/).