Restoration Reporting System

Team:

- ❖ Mike Tishman - mtishman2013@my.fit.edu - Software Engineering
- ❖ Francis Darius - fdarius2014@my.fit.edu; Software Engineering
- ❖ Ramon Almeida - ralmeida2013@my.fit.edu - Software Engineering
- ❖ Milica Knezevic - mknezevic2013@my.fit.edu Computer Science

Faculty Sponsor:

- ❖ Dr. Heather Crawford hcrawford@fit.edu

Client:

- ❖ Sunsation nmarcoux@live.com

Goals and Motivations:

Our main goal for this project is to improve the current system the client is using by developing an application that makes it easier for the user to record and manipulate data. The client currently uses Excel spreadsheets to store and maintain data about damage on houses. Keeping this data on record is required by some insurance companies. However, this method is exhausting, time consuming and prone to errors. Creating a mobile application in order to intuitively enter, store, maintain and analyze data provided will solve those problems and satisfy the customer's needs. Using such an application, the data can be accessed instantly from almost anywhere once they have a computer, tablet or phone. The client also expressed that they have compatibility issues with the different versions of Excel where formatting and macro problems become apparent. In spite of that, this application will provide consistency for such reports.

Approach:

Considering that the client wants a more portable way of documenting their reports, a mobile application is suggested. Their current method for logging the reports is by using Microsoft Excel. Some concerns about this current method was expressed by the client which we believe the mobile will alleviate; such as being able to access reports quickly and easily.

This mobile application will eliminate the stress of constantly having to save and update information manually. The client will now be able to use the application to enter data more intuitively where it will be sent to the database for storage. It can then be accessed from the database once there is a connection i.e. internet. The processed information can then be used for analysis; including graphical representations.

The application will also have an online backup feature which will allow the client to backup the data in the cloud in the case the device gets lost or malfunctions.

In order to create this app, the use of Android Studio, Ionic Framework and PhoneGap are being considered. It is one of our desire to make the app work across various platforms; android and ios to be specific.

Features:

Search and filter with ease:
Search and filter through previously stored data (reports) in our database using date, name of their customer or other desired query. This kind of feature is very tedious using Microsoft Excel.

Online Backup:
In the event that there is an internet connection the user will have the option to backup the data in an online database.

Retrieves and stores data instantly and conveniently:
Application retrieves latest version of records stored. Application also updates online copy periodically for situations where internet is available. Open the app, search for a report by date, name, etc, or update a previously stored report, or even quickly enter data for a new report where it will generate a sleek report at the end.

You do not always have to be on the computer. If you are always on the go or just prefer using your phone or tablet, then you can use this application to complete your report conveniently.

A mobile recording and reporting method (application) would help provide consistent project drying logs.

Notifications can be enabled to alert user when data is synced or updated.

Novel Features:
- ❖ Compatibility with most android devices, we think that with Android 4.1 we will be able to cover most of the market
- ❖ Ability to include images of damages in the report. The client did not have such feature when using Microsoft Excel.
- ❖ The client conveyed that, "A functional application to build a client database and record the progress of a restoration project could have a broad appeal in the industry" which leads us to believe that this kind of application is not common in such an industry.
- ❖ Having an offline and online backup feature, instead of just offline using Microsoft Excel. The online backup feature will make information available anywhere on the go.

Technical Challenges:

- ❖ We plan to incorporate a database into our project, which proves to be challenging, because we do not have much experience with databases.
- ❖ Most of the members in our group do not have expertise in mobile application development.
- ❖ When we implement the online backup feature, we will need assistance with API's to communicate with the application and server.
- ❖ Making the app as secure as possible so that no confidential information is revealed.
- ❖ The application needs to store all the information in the same database since multiple employees may use the application on different devices.
- ❖ To use cache memory efficiently to access and retrieve data from the database.

Milestones:

- ❖ Milestone 1 (Oct 3): itemized tasks:
  - ➢ Investigate Mobile Development IDEs, Libraries and Frameworks, Various Databases and designing UI mockup.
  - ➢ Setup development environment.
  - ➢ Create Requirement Document
  - ➢ Create Design Document
  - ➢ Create Test Plan

- ❖ Milestone 2 (Oct 31): itemized tasks:
  - ➢ Begin designing user interface
  - ➢ Setup tables in database
  - ➢ Implement various calls to the database (GET, DELETE, etc)

- ❖ Milestone 3 (Nov 28): itemized tasks:
  - ➢ Syncing when WiFi or data is available

- ❖ Task matrix for Milestone 1 (teams with more than one person)

Task	Francis	Mike	Milica	Ramon
Investigate/Select Tools	25%	25%	25%	25%
"hello world" examples/demos	25%	25%	25%	25%
Requirement Document	25%	25%	25%	25%
Design Document	25%	25%	25%	25%
Test Plan	25%	25%	25%	25%

Approval from Faculty Sponsor:
- ❖ "I have discussed with the team and approve this project plan. I will evaluate the progress and assign a grade for each of the three milestones."
- ❖ Signature: _____ Date: _____