Milestone 2 - Progress Evaluation

Team Members:

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Milestone 2 - Progress Matrix:

Task	% Complete	Rushil Patel	Roberto Atilho	Ronald Pekarchik	Chenke Li
1 User interface design	100%	70%	10%	10%	10%
2. Store log entries & codebook	85%	10%	55%	10%	10%
3. Research wireless technologies	100%	10%	10%	70%	10%
4. Source code analysis	100%	70%	10%	10%	10%
5. Database Design	50%	5%	35%	5%	5%

Summary for each completed task for Milestone 2:

- **Task 1 - User interface design**
  - Developed prototype of user interface (Proof of concept), which will later be used for the application
  - Created example web application for demonstration purposes for GE.
- **Task 2 - Store log entries & codebook**
  - Designed parser for raw data logs (system logs only for prototype)
  - Stored all the log entries into a database.
  - Stored the entire codebook into the database.
  - Wrote JAVA code that will allow to store stored error codes based on source code from JAVA Database Connectivity. Still need to write update/search.
  - Need to integrate into Android application and use local storage.
  - Need example webpage in order to create web scraper. At the moment parser focuses on raw data logs, which we will not have access to in the prototype.
- **Task 3 - Research wireless integration**
  - Researched how to setup connection to the wayside controller over a wireless medium.
  - Began implementing some JAVA code to gain a better understanding of the API
  - Compiled API code for Wi-Fi Direct to connect, search for peers, transfer data
  - Setup JAVA method for parser implementation of downloaded log files, need communication protocol from GE for wayside control box
  - Researched implementation of JAVA sockets for communication
- **Task 4 - Source code analysis**

- Analyzed existing source code
- Performed McCabe's complexity testing.
- Identified if the code can be reused.
- Verified source code's compatibility with the new system

- **Task 5 – Database Design**
  - At the moment only server side database design has been worked on. Should be nearly identical locally on device
  - Created table structure for storage of log entries and codebook entries
  - Wrote JAVA code to connect to the server database

Summary of Contribution of each team member for Milestone 2:

- **Rushil Patel –**
  - At the moment only server side database design has been worked on. Should be nearly identical locally on device
  - Developed prototype of user interface (Proof of concept), which will later be used for the application
  - Created example web application for demonstration purposes for GE.
  - Analyzed existing source code
  - Performed complexity analysis.
  - Identified if the code can be reused.
  - Verified source code's compatibility with the new system

- **Roberto Atilho –**
  - At the moment only server side database design has been worked on. However, should be nearly identical locally on device
  - Designed parser for raw data logs (system logs only for prototype)
  - Stored all the log entries into a database.
  - Stored the entire codebook into the database.
  - Wrote JAVA code that will allow to store stored error codes based on source code from JAVA Database Connectivity. Still need to write update/search.
  - Created table structure for storage of log entries and codebook entries

- **Ronald Pekarchik –**
  - Researched how to setup connection to the wayside controller over a wireless medium.
  - Began implementing some JAVA code to gain a better understanding of the API
  - Compiled API code for Wi-Fi Direct to connect, search for peers, transfer data
  - Setup JAVA method for parser implementation of downloaded log files, need communication protocol from GE for wayside control box
  - Researched implementation of JAVA sockets for communication

- **Chenke Li –**
  - Assisted with Wi-Fi Direct research.

Task Matrix for Milestone 3:

Task	Rushil Patel	Roberto Atilho	Ronald Pekarchik	Chenke Li
Setup wireless connection to the wayside controller via Wi-Fi Direct	10%	10%	70%	10%
Finalize Database Search Algorithm & Database Communications	10%	70%	10%	10%
Implement user friendly GUI for the technicians to work with in the field	70%	10%	10%	10%
Send new log information to server database	30%	30%	30%	10%
Improve/Test application security.	20%	20%	20%	40%

Summary for each planned task for Milestone 3:
- **Task 1 - Setup wireless connection to the wayside controller via Wi-Fi Direct**
  - Implement communication protocol between phone and wayside controller.
  - Scrape data from log webpage
- **Task 2 - Finalize Database Search Algorithm & Database Communications**
  - Finalize the search/insert/update algorithm of diagnostic logs and related codebook entries
- **Task 3 - Implement user friendly GUI for the technicians to work with in the field**
  - Create the final working GUI
- **Task 4 - Send new log information to server database**
  - New log entries downloaded from wayside are to be sent to the server.
- **Task 5 - Improve/Test application security.**

Sponsor Signature: _____ **Date**: _____

Sponsor Evaluation

- · Sponsor: detach and return this page to Dr. Chan (HC 322)
- · Score (0-10) for each member: circle a score (or circle two adjacent scores for .25 or write down a real number between 0 and 10)

Rushil Patel	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Robert Atilho	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Ronald Pekarchik	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Chenke Li	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10

Sponsor Signature: _____ **Date**: _____