**Fast Electronic Medical Record (fEMR)**

Team Members: Arooba Javed, Rachel Dorn, Daniel Lipford

**Project Overview**

This project is focused on improving the efficiency and cohesiveness of transient medical groups who volunteer in underserved countries. There is currently an open source fEMR system that is already being used by these medical teams. This project focuses on allowing medical schools, pharmacy schools, nursing schools, NGOs and NPOs to communicate more effectively in order to share essential information regarding medication, equipment and common diagnoses. By providing a way for these teams to unify their efforts, these teams will increase their efficiency and be able to better provide care to underserved regions around the world.

**Project Purpose, Scope, Objective**

The goal of this project is to add necessary features to the current fEMR website to allow transient medical teams to view the details of other teams’ volunteer trips. These features will allow volunteer medical teams to view a database of trips that other medical teams have taken to regions of the world. Volunteer medical teams can view these trips details to identify other medical teams that have visited the same region that they intend to volunteer in. This will enable more cohesiveness in treating patients as well as the ability to more effectively plan and pack certain medications.

In addition, medical organizations will be given the opportunity to add their information if they are unable to find their team on the map. A survey will be created for these organizations, and the information added will be added to the database. This will enable new medical teams to be added to the growing database of medical teams.

This website will also have a literature bank, where useful resources for transient medical teams will be posted. This will allow teams to research some of the details of volunteering abroad before embarking on their trip. Lastly, there will be a discussion board where teams can ask questions and provide each other with useful information. The discussion board is essential to increasing the communication between teams.

**Team Organization**

**Roles**: All team members are required to participate in each domain of this project. However, the domain leads are ultimately responsible for the completion and quality assurance of their particular domain.

Team Lead: Arooba Javed

Presentation: Arooba Javed

Documentation: Arooba Javed

Architecture Planning: Rachel Dorn

UI/Frontend: Rachel Dorn

Database/Backend: Daniel Lipford

Testing/Debugging: Daniel Lipford

Arooba Javed:

As the Team Lead, Arooba is responsible for scheduling regular client meetings and ensuring that schedules sync for team meetings. She is also responsible for following up with team members to ensure responsibilities are being fulfilled and deliverables being met.

As the Presentation Lead, Arooba will construct the slide decks for the presentations and lead her team to practice before presentations, in order to show team cohesiveness during the presentations.

As the Documentation Lead, Arooba will spearhead the documentation efforts for this project and ensure that the documentation of code is concise, robust and covers all relevant information. Arooba will ensure that the team’s code could be read by another programmer if he wished to pick up and continue the project. The code documentation should be so robust that it can be “handed off” to a future team of programmers easily.

Rachel Dorn:

As the Architecture Planning Lead, Rachel will be responsible for planning the layout of the webpage. As the UI/Frontend Lead, she will be responsible for the user experience/look of the website. Rachel will direct the research needed software and coordinating the deliverables for this section.

Daniel Lipford:As the Backend lead, Daniel will be responsible for establishing the best technology usage for the databases and ensure they get implemented efficiently and correctly to seamlessly integrate with the front-end. As the Testing/Debugging lead, Daniel will manage the team’s test cases as development progresses to assure full test coverage on newly integrated features in team FEMR’s website.

**Problem Resolution Policies**

Our team will have a “48 hour rule”. The plan is to have all deliverables completed at least 48 hours before the deadline, then have a “Team Huddle” to do a final review on the work and practice for the presentation. If there are last minute mistakes found at the Team Huddle, the last 48 hours before the deadline will be used to fix mistakes and put the finishing touches on the deliverables before the official deadline.

Before the Team Huddle, there will be smaller, incremental deadlines for each piece of code. If a team member knows that they will fail to complete their piece of code by their assigned deadline, they must reach out to the Team Lead as soon as possible and alert her. If the teammate fails to alert the Team Lead, the Team Lead will note the discrepancy in the weekly report. Once the Team Lead is alerted to the forthcoming missing incremental deadline, she will re assign that piece of code to another team member.

If a team member knows that they will be unable to be physically present for a meeting, that team member will be expected to “call in” to the meeting, so that they may participate by phone.

If there is a dispute over technology choices, the choice will be first put to a vote. If two team members agree on a choice, that choice will reign supreme. If all three team members have a different viewpoint, the team will approach Hussain, our assigned TA, for his opinion.

**Project Plan**

Recurring weekly meetings:

Monday/Wednesday 1:30pm- Team Meetings

Tuesday 8pm- Client Meeting

Project Schedule:

**Deadline: Tuesday, February 2nd Development Plan**

* Week 01/24:

Client meeting: Sunday, January 24th

-Introduce the team to the client

-Review scope of project

-Understand priorities of the listed objectives of the project

* Week 01/31:

    Homework

-Complete Development Plan document

-Practice Development Plan presentation

**Deadline: Tuesday, February 16th           Requirements Specification**

* Week 01/31:

Client meeting: Tuesday, February 2nd

-Gather requirements from client

-Clarify hazy requirements

Homework

-Write Requirements Specification document

* Week 02/07:

Client meeting: Tuesday, February 9th

-Self-imposed deadline to have requirements contract written

-Review contract with client

-Revise contract if necessary

Homework

-Finalize Requirements Specification document

* Week 02/14:

Homework

-Review Requirements Specification document with client and sign it

**Deadline: Tuesday, March 1st             First Prototype**

* Week 02/14:

Client meeting: Tuesday, February 16th

-Review specifications for first prototype

Homework

-Code first prototype

-Debug

-Documentation

* Week 02/21:

Client meeting: Tuesday, February 23rd

-Review progress on first prototype

Homework

-Code first prototype

-Debug

-Documentation

* Week 02/28:

Homework

-Finish coding first prototype

-Debug

-Documentation

**Deadline: Tuesday, March 8th            Design Specification**

* Week 02/28:

Client meeting: Tuesday, March 1st

-Discuss design specification details

Homework

-Write Design Specification document

* Week 03/06:

Homework

-Finish writing, revise Design Specification document

**Deadline: Tuesday, March 22nd            Test Plan**

* Week 03/13:

\*Spring Break\*: NO WEEKLY CLIENT MEETING

Homework

-Write Test Plan document

* Week 03/20:

Homework

-Finish writing, revise Test Plan document

**Deadline: Tuesday, March 29th           Second Prototype**

* Week 03/06:

Client meeting: Tuesday, March 8th

-Review progress on second prototype

Homework

-Code second prototype

-Debug

-Documentation

* Week 03/13:

\*Spring Break\*- NO WEEKLY CLIENT MEETING

Homework

-Code second prototype

-Debug

-Documentation

* Week 03/20:

Client meeting: Tuesday, March 22nd

-Review progress on second prototype with the clients

Homework

-Code second prototype

-Debug

-Documentation

* Week 03/27:

Homework

-Finish coding second prototype

-Debug

-Documentation

**Deadline: Tuesday, April 19th             Full Project Source Code**

* Week 03/27:

Client meeting: Tuesday, March 29th

-Review progress on project source code with client

Homework

-Code final submission of project

-Debug

-Documentation

* Week 04/03:

Client meeting: Tuesday, April 5th

-Review progress on project source code with client

Homework

-Code final submission of project

-Debug

-Documentation

* Week 04/10:

Client meeting: Tuesday, April 12th

-Review progress on project source code with client

Homework

-Code final submission of project

-Debug

-Documentation

* Week 04/17:

Client meeting: Tuesday, April 19th

-Present final project source code to clients

Homework

-Submit final project source code

**Configuration Management Plan**

A public repository on GitHub will be used for our team’s source control. A team member’s work in progress will be developed on his or her branch. The work will then be merged to our main repository when it is complete.

**Technologies**

The basic webpage development portion of this project will be using HTML and CSS along with some JavaScript. The database will be implemented using MySQL which will be combined with PHP to handle the storing of web page inputs from our survey. A premade forum implementation will be used to create our discussion board. A map API will be used to aid in the creation of our interactive map.