Field Session Project Summer 2012
Colorado School of Mines

Company Overview
SpinFusion, Inc. is the leading provider of web-based staff scheduling solutions for anesthesia providers. We currently provide scheduling software to anesthesia, pediatrics, and icu practices in U.S. across 40+ states, with a user base of nearly 15,000 users. We are located just outside of downtown Denver at 6th and Speer on the Denver Health Campus.

Field Session Overview
SpinFusion currently employs a third party library to generate a variety of statistical reports for clients. Most of these reports are in a grid format with columns representing count and rows representing the individuals. Currently the reports are static and do not have the pop that we would like clients to see in terms of design as well, nor are they dynamic enough for client needs. Additionally, they are hard to maintain and develop as we add new clients. Specific aims of the field session would be as follows:

Week 1: Find a library that allows production of "pretty" reports with charts and off-the-shelf complex layouts; determine all competitors to http://www.windward.net and analyze plus/minus of products. Requirements for lib:
   a. Have flexible complex designs
   b. Can do pivot tables
   c. Include charts/graphs
   d. On-the-fly reporting (not static report layout)
   e. Stat analysis baked into reports
- Week 2-5: Plug this into existing backend servlets; simple reporting capability replaced from Jasper with new library
   a. Replace static count reports with new design
       i. Added stat functionality (average, etc)
       ii. Pivot tables
       iii. No response design
   b. Add custom report functionality in main interface
   c. If time consider replacing other (non-count) report types with library
- Week 6: Presentation

Responsibilities
• Design, code, test, debug, configure, integrate and document software
• Refactor and maintain existing code as needed
• Participate in design and code reviews of software components to ensure detailed technical requirements and implementation meet feature requirements
• Apply generally accepted programming standards and design patterns to software development efforts.
• Work independently as well as with others and report progress of assigned deliverables to technical and team leads.

Technologies/Processes Used
• Java
• JSPs
• Javascript and Javascript Libraries (DHTMLx)
• Git source control
• Agile Development Process

Location
Much of the work should be done onsite, so that students can interface with the software engineers at SpinFusion.