

Montana Tech Nursing Department

Drug Card Database

Database Design

CSCI – 340

Jeff Hall

Steve Wilson

Mack Sutherland

Jeff Hall

Mack Sutherland

Steve Wilson

Database Design – Project Description Updated

Mission Statement:

The purpose of the Drug Card database is to store, maintain, and organize the data concerning drug cards used and generated by the Montana Tech Nursing Department by the students and staff.

Jeff Hall

Mack Sutherland

Steve Wilson

Database Design – Overview updated

Overview:

This document serves to provide an overview of the Montana Tech Nursing Department Drug Card Database. The application is being developed for students and faculty in the Montana Tech Nursing Department. The application will be developed by three students in CSCI 340 – Database Design: Jeff Hall, Mack Sutherland and Steve Wilson. The purpose of the Drug Card database is to store, maintain, organize, the data concerning drug cards used and generated by the Montana Tech Nursing Department by the students and staff. Objectives for the Drug Card database include storing/organizing the drug cards, providing easy to learn user interfaces for the students and faculty to compose, submit, search, and view drug cards. The database will also give Montana Tech faculty a central location to grade drug cards. Finally, the database will integrate easily with existing software at Montana Tech, like CAS (Central Authentication System). The system will be composed of a website with the assumption that it is hosted somewhere on the Montana Tech campus and will have access to the needed CAS assets. The system boundary lies just outside of the HTML, PHP and MySQL database on the server. The boundary does not include CAS as it is an outside script that will be called to handle authentication.

There will be two different types of user with different views of the system, even though the functionality is largely the same. The student will be able to compose and submit drug cards to the faculty. The student will be able to search and view their own drug cards and those put up as examples by the faculty. The faculty will also be able to compose and submit drug cards (as examples) but will be able to search all drug cards and, further, narrow that search down by what needs to be graded. The faculty will also have the functionality to add users to the system.

Jeff Hall

Mack Sutherland

Steve Wilson

Database Design – Project objectives updated

Objectives:

1. To store and organize drug cards created by the students of the Montana Tech Nursing Department.
2. To provide an easy user interface to compose and submit drug cards.
3. To provide an easy console to view and search existing drug cards.
4. To provide an easy console to view faculty example drug cards.
5. To give Montana Tech Faculty a central location to aggregate drug cards for grading.
6. To integrate efficiently with already existing software at Montana Tech.

Jeff Hall

Mack Sutherland

Steve Wilson

Database Design – List of Tasks updated

This is a list of tasks or specifications that must be true of the final product of the drug card project.

List of Tasks:

1. Use CAS to enable student login and authentication.
2. Use CAS to enable faculty member login and authentication.
3. Create the needed database environment that is portable and re-creatable.
4. Allow students to create new cards, edit previous cards, comment on cards and search for old cards that they own.
5. Allow faculty members to create new cards, edit previous cards, comment on cards and search for old cards that they or students own.
6. Implement a page that the faculty can use to add a new user to the system.
7. Implement a recent page that will show the user's most recently changed cards.
8. Implement a search feature for use both by students and faculty.
9. Implement a system to save drug cards without submitting them to the system. This is a way to keep track of "in-progress" cards. This will be used by both faculty and students
10. Implement a page that will show students example cards.
11. Implement a page that will show faculty ungraded cards.
12. Implement the entire application on the web to facilitate ease of use and convenience, by client request.
13. Create a valid hosting environment explanation for the client. This is by client request as the actual hosting is the responsibility of the client.

Jeff Hall

Mack Sutherland

Steve Wilson

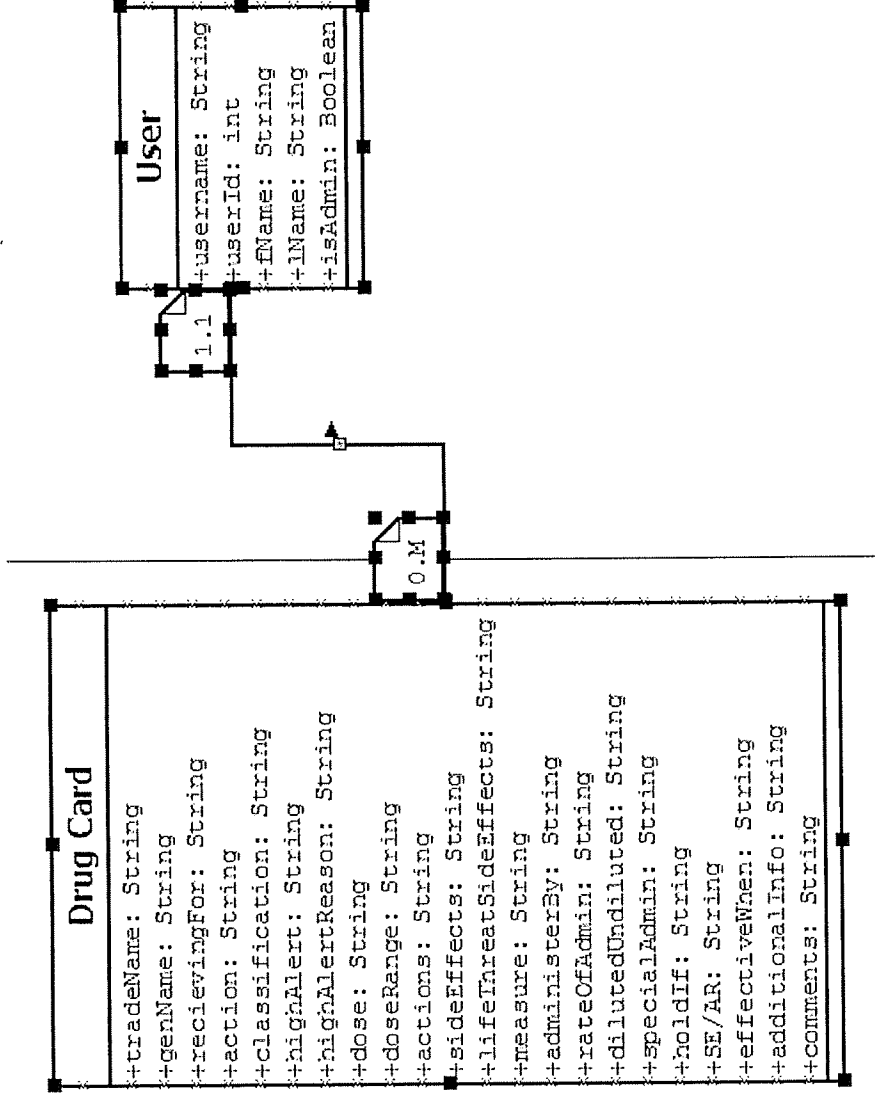
Database Design – Project Description Updated

Drug Card:

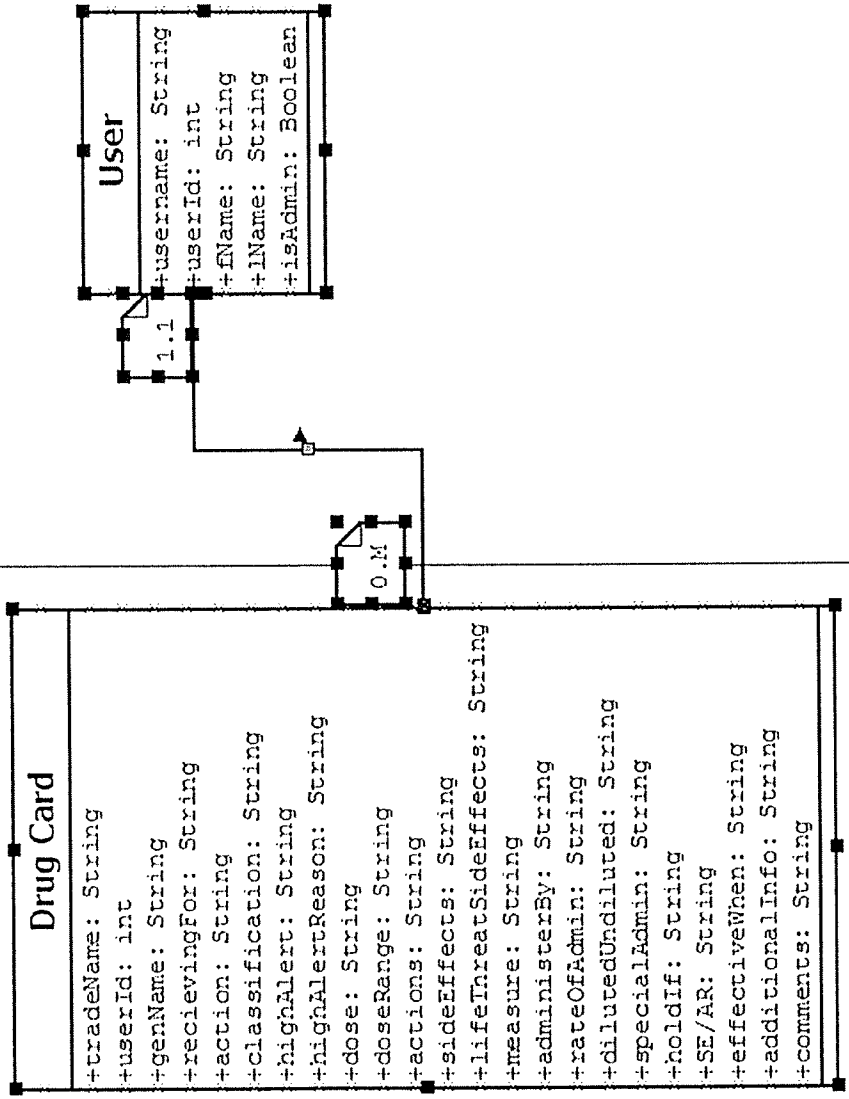
The purpose of the Drug Card database is to store, maintain, and organize the data concerning drug cards used and generated by the Montana Tech Nursing Department by the students and staff.

Tab - Models

Conceptual Model



Logical Model



Tab - Screen Shots

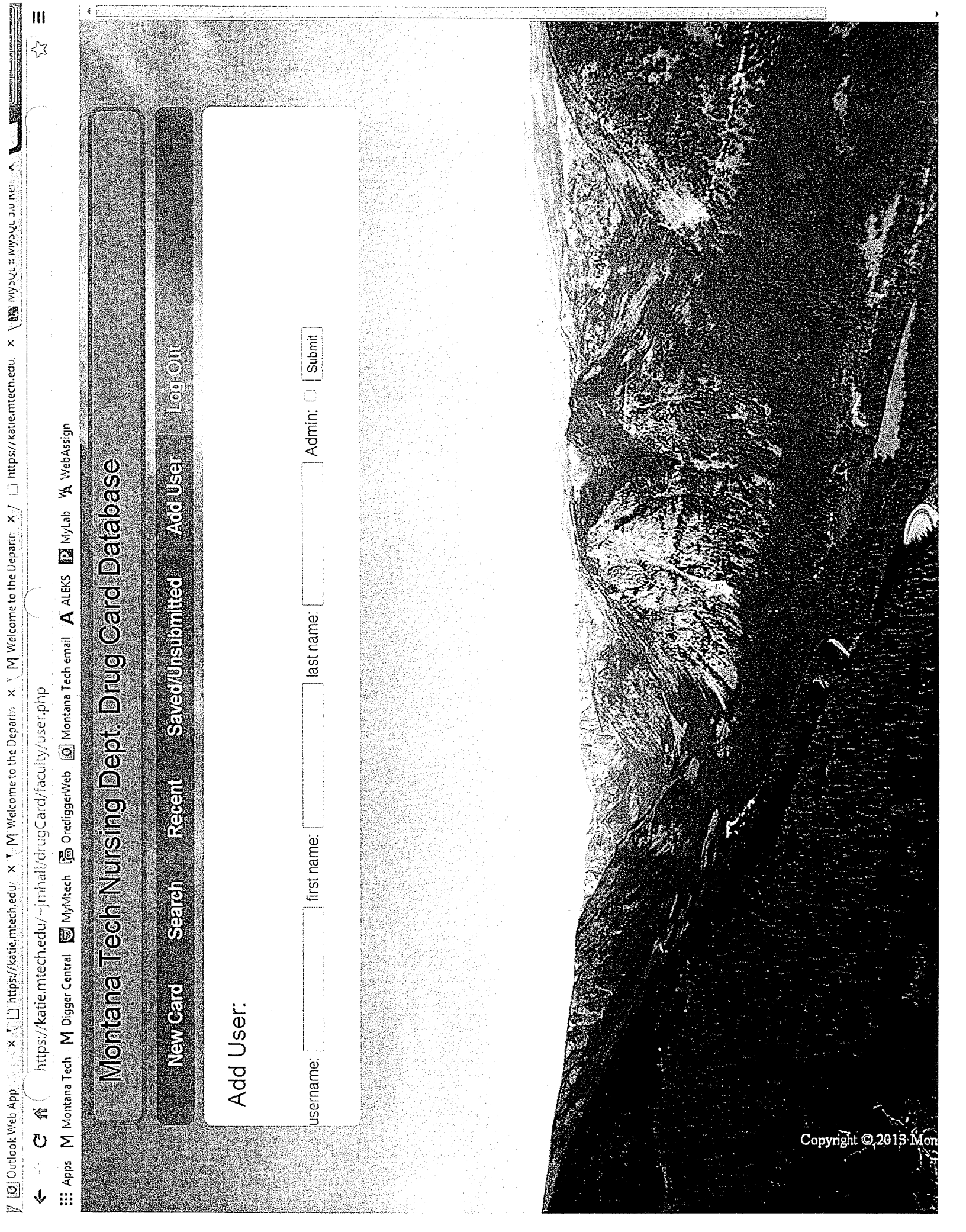
Montana Tech Nursing Dept. Drug Card Database

[New Card](#) [Search](#) [Recent](#) [Saved/Unsubmitted](#) [Faculty Example](#) [Add User](#) [Log Out](#)

Search:

First Name: Last Name: Student Id (799 number): Trade Name:
Generic Name: Drug class:
Number of Cards to Return:





Montana Tech Nursing Dept. Drug Card Database

- New Card
- Search
- Recent
- Saved/Unsubmitted
- Add User
- Log Out

Add User:

username: first name: last name: Admin:

Montana Tech Nursing Dept. Drug Card Database

New Card Search Recent Saved/Unsubmitted Faculty Example Add User Log Out

New Drug Card:

This is (trade name) , also called (generic name) .

The patient is receiving it for/because receivingBecause.

The (brief) mechanism of action is mechAction. Drug Classification drugClass. High alert!(yes or no) highAlert.

If yes, please provide reason why highAlertComment.

The prescribed dose/route/frequency is doseRouteFreq.

Dose Range: Minimum to Maximum doseMin doseMax.

I have verified that the prescribed dose is within the safe range for this patient verifiedSafe. If not, I took the following action(s) .

verifiedComment

Common side effects (SE) include sideEffects.

Life threatening SE/adverse reactions (AR) include writeType. None, if no common side effects itSideEffects.

I need to measure/assess measure before I administer this medication. I will administer this medication (by mouth/as an injection (i.e. IM, IVP, IV infusion, Subcut., ID, etc..)) administer.

If IV route, please provide the rate of administration rateOfAdmin. Diluted/Undiluted (circle one) dilUncil.

Special administration considerations include specAdmin. I will hold this medication if/when holdMed.

SE/AR associated with administering this medication with the patient's other prescribed medications include seArOtherMed.

I will know the medication is effective for this patient when effWhen.

Additional information (if needed) addInfo.

Tab-Miscellaneous

Jeff Hall, Mack Sutherland, Steve Wilson
Montana Tech
1300 W. Park Street
Butte, MT 59701

To whom it may concern:

I am writing to explain how host the Montana Tech Nursing Department Drug Card database website.
Here is a list of things that must be done to host:

1. Install Apache, MySQL, and PHP on a server. (<https://www.apachefriends.org/index.html>)
2. Move all the files for the site into a directory that can be found by Apache.
3. Start MySQL and run "source dcard.sql" to set up the empty database.
4. Add a "web user" that will have permissions to select from, update, and insert into the database.

That's it!

The website and database application should be up and running. Note: For CAS to work correctly, the site must be hosted on the Montana Tech Campus

Further Reference:

<http://www.wikihow.com/Set-up-a-Personal-Web-Server-with-XAMPP>

Tab - Minutes

Database Design, CSCI 340, Spring 2014

Meeting Minute template

Purpose of meeting: Finish up application

Date/time: 6pm 4/23/2014 Location: Museum Lab

Recorder: Jeff Hall

Attendees: Jeff Hall, Steve Wilson (Mack had football practice)

- Take stock of what is done and what left there is
- Saw what Jeff did since the last meeting: Saved page, faculty example page, logout functionality, faculty add user functionality
- Re-mapped to the admin directory everything that was in the students directory.
- Added a link to the admin side for adding a user
- Changed SQL queries for Faculty side so they can see all cards, not just student ones
- Emailed Janet Coe about meeting times. Will update Celia when we hear back
- Updated list of tasks
- Added the ability for a card to be graded
- Finalized and tested all aspects of application
- Finished drafting letter to future hosts on how to set up the application (As per request of Janet Coe).

End time: 8:00pm

None. This is the last meeting!



Database Design, CSCI 340, Spring 2014

Meeting Minute template

Purpose of meeting: Continue to work/debug database

Date/time: April 16, 2014

Location: MUS Lab

Recorder: Mack

Attendees: Jeff Hall, Mack Sutherland

- Got CAS running
- Got login/logout working
- Reset Database
- Moved to Katie
- Debugged student side of database
- Corrected minor syntax errors

End time: 8:10

Date, time, location: 4/23/2014 at 6:00pm MUS Lab

Database Design, CSCI 340, Spring 2014

Meeting Minute template

Purpose of meeting: To continue work on the Drug Card Draft

Date/time: Location: 4/2/2014 6:00pm Museum Lab

Recorder: Jeff Hall

Attendees: Jeff Hall, Mack Sutherland, Steve Wilson

- Continued work on displaying added drug cards.
- Continued work on the edit form.
- Created new files for showing recent drug cards and recent drug cards
- Set up the search page a little bit.
- Created the logical model of the database.
- Edited the list of tasks.
- Restructured the database.
- Planned to look on p300 of the text for a better example of the project description.
- Talked about the tentative meeting with Janet Coe next Wednesday.
- Divvy'd up remaining work for the 4/9 turn in.

*Not mentioned in the
tasks list - A shall be*

End time: 7:30pm

Date, time, location and purpose of next meeting if another meeting is planned: 4/9/2014 6:00pm

Database Design, CSCI 340, Spring 2014

Meeting Minute template

Purpose of meeting:

Date/time: 6:00pm 3/26/14

Location: MUS Lab

Recorder: Mack

Attendees: Jeff, Mack

Include everyone who is there at the beginning of the meeting. If someone arrives late, make a note of this at the appropriate spot in the minutes. Similarly make a note if someone leaves early.

- Created new database
- Asked Celia about CAS
- Looked up CAS, found out we need permissions
- Coding the welcome page

End time: 7:00pm

Date, time, location and purpose of next meeting if another meeting is planned:

6:00 pm 4/2 MUS Lab

Database Design, CSCI 340, Spring 2014

Meeting Minute template

Purpose of meeting: To decide how to mitigate work on the code

Date/time: Location: 3/12/14 6pm

Recorder: Jeff Hall

Attendees: Jeff Hall, Steve Wilson, Mack Sutherland

- Decided to Implement CAS for login
- Spoke about project logistics
- Will be using php Proxy for hits on the database
- Will be using Ajax to hit the database since we already have the javascript written to populate the drug cards. *Nice*
- Decided to send another email to Janet Coe telling her where we are on the project.
- Decided how to schedule the work. Will collaborate during our meetings and mitigate tasks
- Decided when to start the work. *how?*
- Decided to move meetings to Monday nights at 6pm *when?*
- Jeff started the Email to code. ?
- Decided to not meet during spring break since everyone will be out of town
- Since Mack is new to web, I will meet and install WAMP on his laptop
- Wrote the e-mail to Janet Coe

End time: ~~6pm~~ 7:00pm

3/24 6pm

Database Design, CSCI 340, Spring 2014
Meeting Minute template

Purpose of meeting: Initial project description and requirements

Date/time: 2/10/13 9:00am Location: Janet Coe's Office

Recorder: Jeff Hall

Attendees: Jeff Hall (I was the only one that could make it, Coe's schedule was limited and we were trying to meet a deadline)

Minutes:

1. Coe and I went over what exactly was on the drug card and what the students will be writing on them. In-depth information of the drug card
2. Coe would like something that all students can access, so this will be web-based.
3. Made note that no identifiable patient information should be included. So, only student and drug card tables.
4. Added an admin side of the site, so Coe can access without student intervention
5. Added the ability to print the drug cards.
6. Exchanged contact info with Coe so we can get a hold of her if there are more questions.

What is the on drug card?

I don't see this → the interface.

End time: 9:30 am

Next: Wednesday, Feb 12, 2014 6:00pm



Database Design, CSCI 340, Spring 2014

10 minutes

Meeting Minute template

Purpose of meeting: Discuss Initial Meeting with client


Date/time: 6:20 2/12/2014

Location: Museum Lab

Recorder: Mack

Attendees: Steve, Mack, Jeff

We went over project wants of the client. We also discussed implementation of the Web-based login system for the students and Admins. The client wanted a web based interface, for easy access for their students. We also planned the basic outline for tables and their interactions.




Minutes do not need to be highly detailed but all decisions and the rational for that decision should be recorded.

End time: 6:30

Date, time, location and purpose of next meeting if another meeting is planned.

Wednesday 2/19/2014 at 6pm in the Museum Lab



Jeff Hall
Mack Sutherland
Steve Wilson

*These are useful
but don't belong
in the list
of tasks.*

This is a list of tasks or specifications that must be true of the final product of the drug card project (subject to client review)

List of tasks:

1. Web-based (HTML5, PHP, CSS3 and the like)
2. The application will be easy to use and accessible anywhere with an internet connection.
3. Database to organize drug cards, students, and instructors
4. Login/logout pages for the student and faculty
5. When the student logs in, the student is prompted to search for past drug card or create a new one for submittal. Or by default, they will see 5 recent drug cards.
6. When the instructor logs in, they can search based on student name for submitted drug cards.
7. The Instructor will be able to add comments to each drug card, or annotate each field (subject to client review).
8. The Instructor will be able to add drug cards themselves.
9. Both the student and the instructor will be able to delete drug cards.

← Not tasks

← vague

Enable students + faculty members to log in

→ Enter drug card information
Edit " " "

Allow students to search for drug cards belonging to them.

Database Design, CSCI 340, Spring 2014
Meeting Minute template

Purpose of meeting: To nail down the task list for the drug card project

Date/time: 2/19/13 6:00pm Location: Museum lab

Recorder: Jeff Hall

Attendees: Jeff Hall, Steve Wilson, Mack Sutherland

Minutes:

1. Got together, ate pizza (☺)
2. Created task list
3. Added technical specifications like what language it will be written in
4. Decided instructor permissions and abilities
5. Decided student permissions and abilities
6. Came up with questions for Janet Coe.
7. Emailed them to Janet Coe

End time: 6:30 pm

Next: Wednesday, Feb 26, 2014 6:00pm

Database Design, CSCI 340, Spring 2014

Meeting Minute template

Purpose of meeting: Start the conceptual Model/ Interface

Date/time: 6:00 2/26/2014

Location: MUS Lab

Recorder: Mack

Attendees: Mack, Jeff, Steve

We created a basic website structure. We also created the structure of the for Drug card on the website, and set up text boxes for each input. [The entire drug card is now transferred to a webpage with matching textboxes for the input] We discussed how the pages would connect and different view for Admins.

*Also JavaScript from
minute on 3/12
Extra +10*

Cool.

End time: 7:10 pm

Date, time, location and purpose of next meeting: 3/5/2014 5:00 MUS Lab, Finish the conceptual model.

Database Design, CSCI 340, Spring 2014

Meeting Minute template

Purpose of meeting: Finish conceptual model and the user interface

Date/time: Location: 6:00 pm 3/5/2014 MUS Lab

Recorder: Mack

Attendees: Mack, Steve, Jeff

- We decided to CAS for logins
- Debated search terms - + decided on what?
- Debated having separate user tables - it looks like you decide to have only one
- Finished the conceptual model
- User interface.
- Started looking into the DML for the database
- Created a stub database script
- Finished the stub database script
- Loaded it into Steve's Katie mysql account
- Emailed the script to everyone in the group

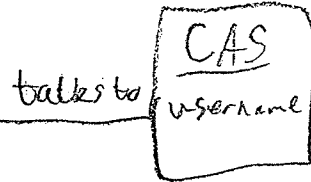
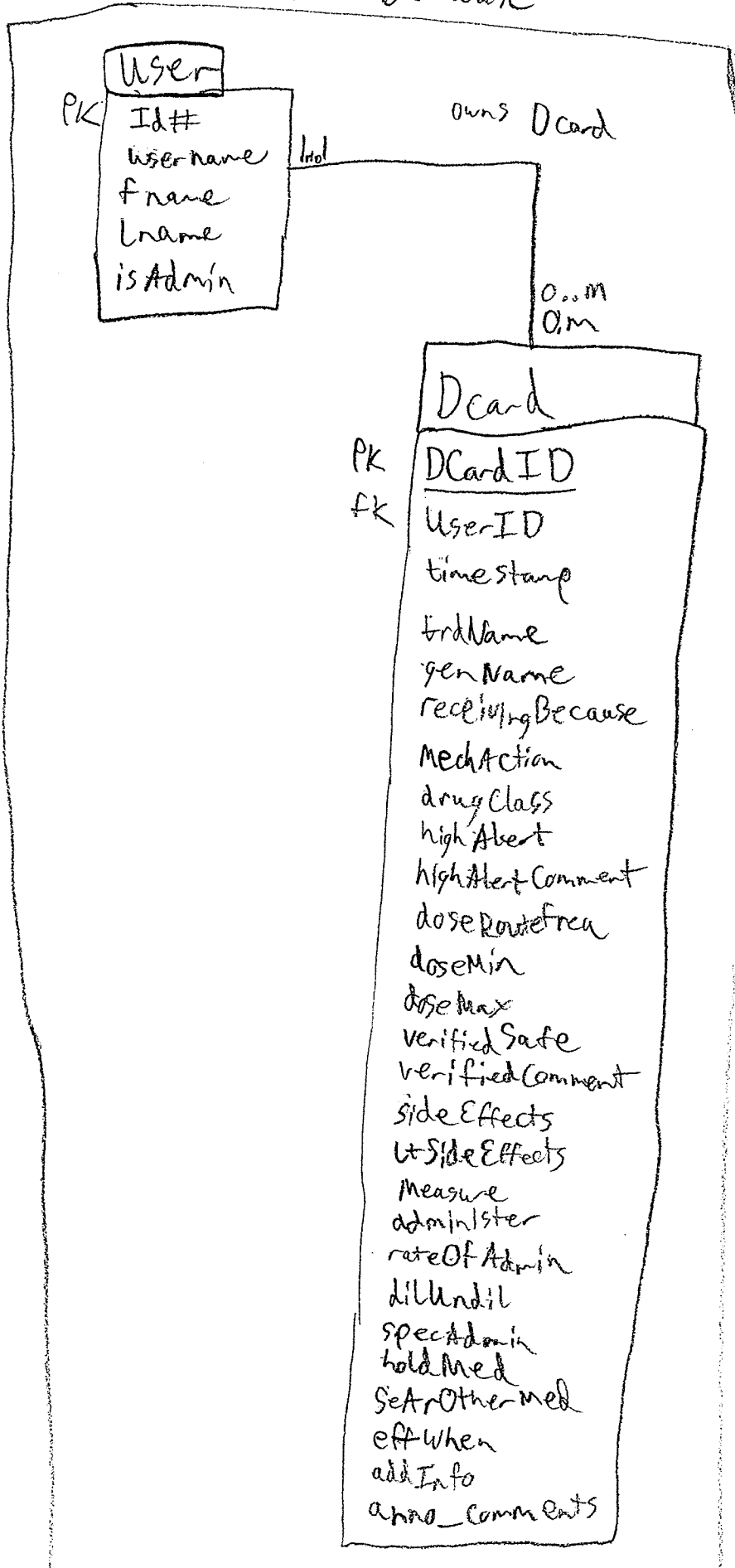
End time: 7:05

Date, time, location and purpose of next meeting: 6:00 7/12/2014 in MUS lab

Tab - Preview
Material

Logical Model

Our Database



CAS sends back
The username of
Student/admin if valid

Not part of
a logical
model
but would
be part
of a

System
boundary

Conceptual Model ✓

Drug Card Database

