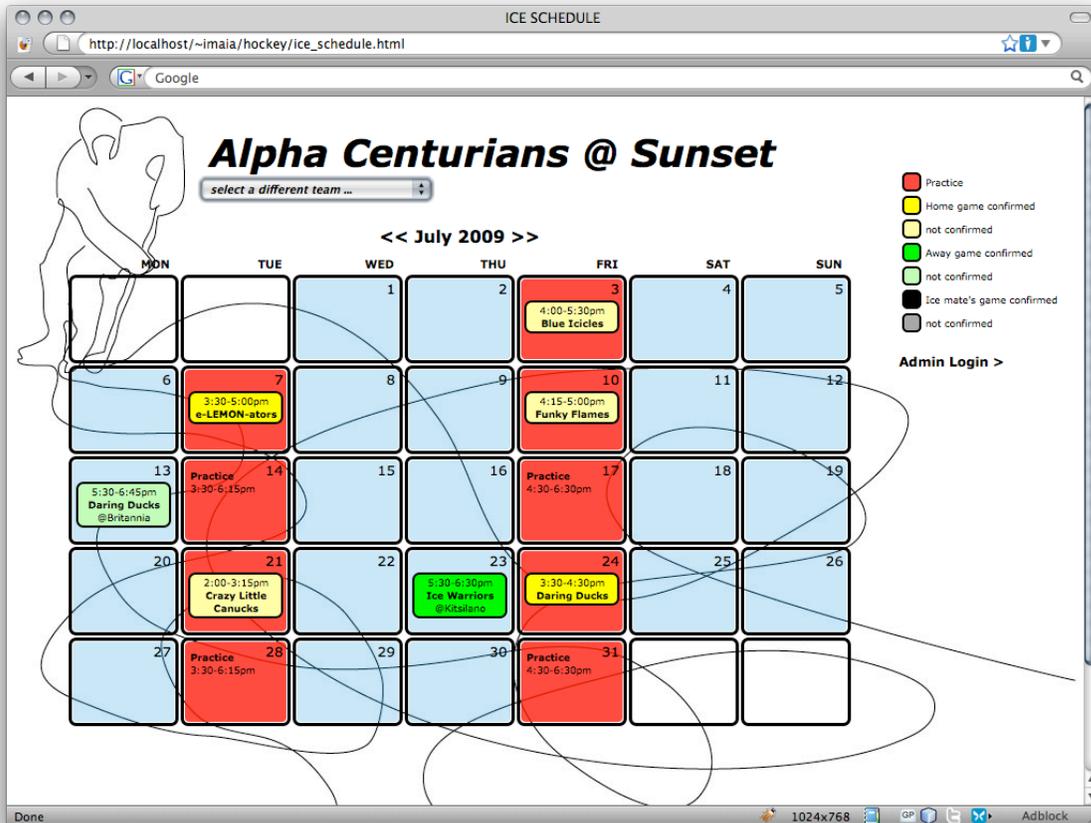# HOCKEY ICE SCHEDULER

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INTERACTION MODES

The ice scheduler should be usable without extra instruction.

There are 3 modes it can be used in:

- Kids and Parents mode
- Team administrator mode
- System Manager mode
-

1) Kids and Parents Mode

Kids and parents can access their own schedule as well as the schedules of the other teams. I made the assumption that this transparency is ok.

There are two straightforward interactions: '**switch month**' and '**switch team**'.

2) Team Administrator Mode

The team administrator has to click on '**Admin Login >**' to get to the login interface, or the possibility to register as a new administrator.

Once logged in there is a panel with games to **confirm and cancel games** the team has been invited too as well as the games the ice-mate is proposing

New games can be added by clicking the team's allocated practice time.
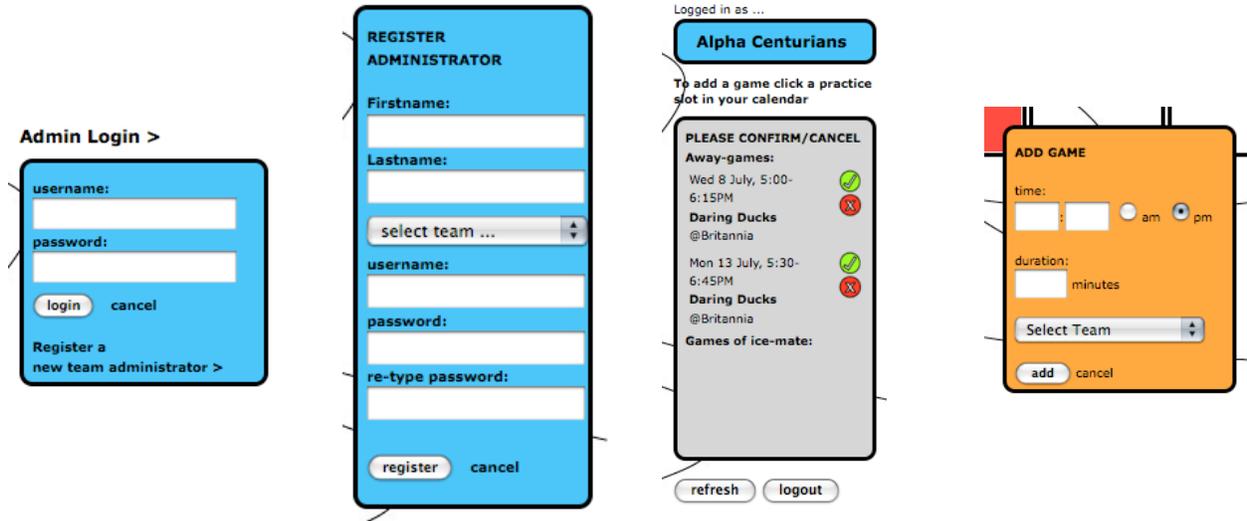
3) System Manager Mode

The system manager will use the calendar interface in conjunction with the other tools developed, mainly the database administration interface. The combination of the two allows full control over the data and easy visual verification.
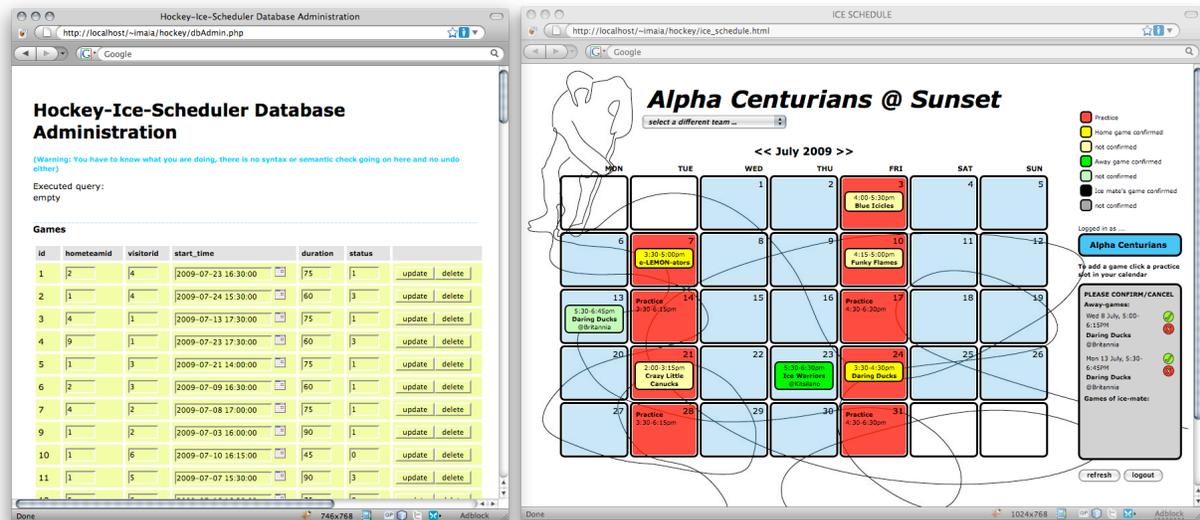
EXPLORING THE SYSTEM

It makes sense to explore the system one mode after the other. In the following I am providing a few tips and tricks.

1) Kids and parents mode

Since the calendar always starts at the current date I have filled **July** with **the most test data**.

The practice slots are all reserved until end of April next year.

2) Team administrator mode

You can either create your own username and password, there is no restriction built in (yet).

In the test installation there is a shortcut for logging in; for each team the **first letter of the team name** (in lowercase) can be used as username and password, for example:

      password: **a**
      username: **a**

will log you in as the administrator for the team 'Alpha Centurians', and since the teams names start with the first 9 letters of the alphabet, any one of a-i will log you in.

After login in you can add games and confim/cancel games. Confirming games does not automatically turn them into confirmed games, because there are two parties that need to confirm. So once a game is off your list and not confirmed it means the other party (guest team or ice-mate) still needs to confirm.

3) System Manager Mode

For this you log in as a team administrator in the scheduler and then also open the database interface, the file dbAdmin.php, which is in the same folder as the scheduler.

The dbAdmin.php interface is also good for undoing things, because one only needs to click 'update' and it will reset the respective row. Another helpful interface is queryMachine.php, which I used a lot to repeat the same query to undo what I was experimenting with in the scheduler.

The system manager interface is also needed to do the things I was not able to add to the scheduler, because I ran out of time, like adding new teams, adding and changing ice allocations, and changing games.

THE PROJECT

The project is the result of learning by doing. This shows in the code. My goal was to satisfy the requirements of the assignment and at the same time explore the potential of AJAX and dhtml to create a satisfactory user experience.

All the features required for part III: Game scheduling and the Calendar are implemented:

- ice-use calendar of a team
- navigation through the season
- game offers and their status
- creation of game offers directly in the calendar
- updating the status of game offers
- refresh button (for logged in users, the others have to use the brower's refresh for now)
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Even though the interface does not reveal it, there are many levels of information that need to stay in synch and be tracked, queried and updated in response to user interaction.

- the visual display of information
- the possibilities for user interaction
- the state of system, eg: who is logged in, which team is showing
- the parameters for queries
- the database

The system is implemented using 5 different 'languages':

- HTML
- Php
- JavaScript
- XML
- CSS

TESTING

http://ws.mss.icics.ubc.ca/~imaia/hockey/ice_schedule.html

http://ws.mss.icics.ubc.ca/~imaia/hockey/

I used the administrator mode and firebug to test and debug the scheduler.

Firebug was very helpful to debug Javascript; it allows setting breakpoints and watch expression. It is also great to debug the DOM and verifying the hierarchy of elements resulting from Javascript. Firebug is helpful to debug XML, which it does in the same way as the DOM. And last but not least it always shows how many errors there are on a page. My page is not bugfree, but it is as bugfree as many others including google and some other professional sites.

BUGS

The biggest bug I was not able to eliminate is that when an administrator is logged in and changes to another team, it is possible for the administrator to click on blue fields and have the 'Add Game' panel show up. Removing the EventListener is not working reliably.

A second bug is that sometimes games show up multiple times in the 'Confirm/Cancel' panel.

Other than that I think I fixed most of the major flaws, but I may have introduced new ones.

The code is a mess, and there are too many files. But without knowing all the languages and techniques involved it was hard to plan beforehand. This project grew 'organically'.

It probalby won't work in IE, I tested extensively in Firefox and I tested the main functionalities in Safari. It somewhat works in Flock, but Flock does not render it well.

MISSING THINGS

As mentioned above none of the required features are missing, but I resent that I ran out of time to implement:
- registering new teams
- adding ice allocations through direct interaction with the calendar
- changing and deleting games and ice allocations
- a native refresh button for non-logged-in users

BONUS FEATURES
Only a few ....
- a kids and parent mode
- switching between different teams
- encrypted storage of passwords
- user-friendly direct manipulation interface
- one interface for all editing, so the context is not lost when making changes
- nice design

INSTALLATION
The files have to go into a **'web-accessible' folder**.
There is a database dump **hockey_20090622.sql** with the schemas and data to run the test version.
The file **dbConfig,php** may need to be adapted to the installation environment.
The **preset passwords may not work**, if the installation system uses a different encryption mode. In this case new (test-)users should be created.
The **index.html** file shows the list of pages created for assignment 1 and 2.
ice_schedule.html is the page with the scheduler.