

Developing a web application for the Northern Illinois Hockey League

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OVERVIEW

PROBLEM

The NIHL is a large youth hockey league in Northern Illinois with over 275 teams. Many of their processes are done manually including scheduling and statistics management.

Scheduling is:

1. Expensive
2. Chaotic
3. Time-consuming
4. Inefficient

Statistics-Management is:

1. Outsourced
2. Expensive
3. Low-tech
4. Time-consuming

GOAL

Automate NIHL's current processes by creating a new and improved web interface that NIHL users and the public can easily use and navigate. Goals for our website include:

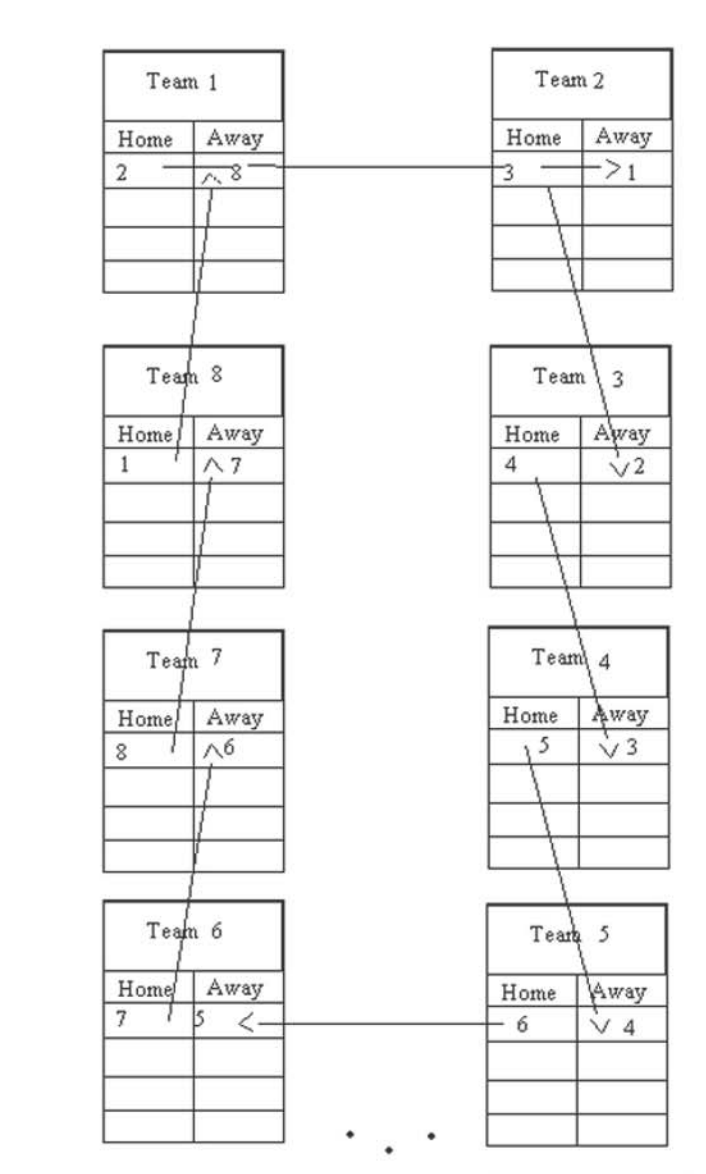
1. User-Friendly
2. Self-Sufficient
3. Universal
4. Time Efficient

SOLUTION

I PRO 308 expanded on data and information from the previous team in order to refine and improve the application.

User experience was the primary focus of the current team. Usability testing was conducted in order to make well-researched changes to the interface design. Development and functionality testing was also a big part of the overall solution.

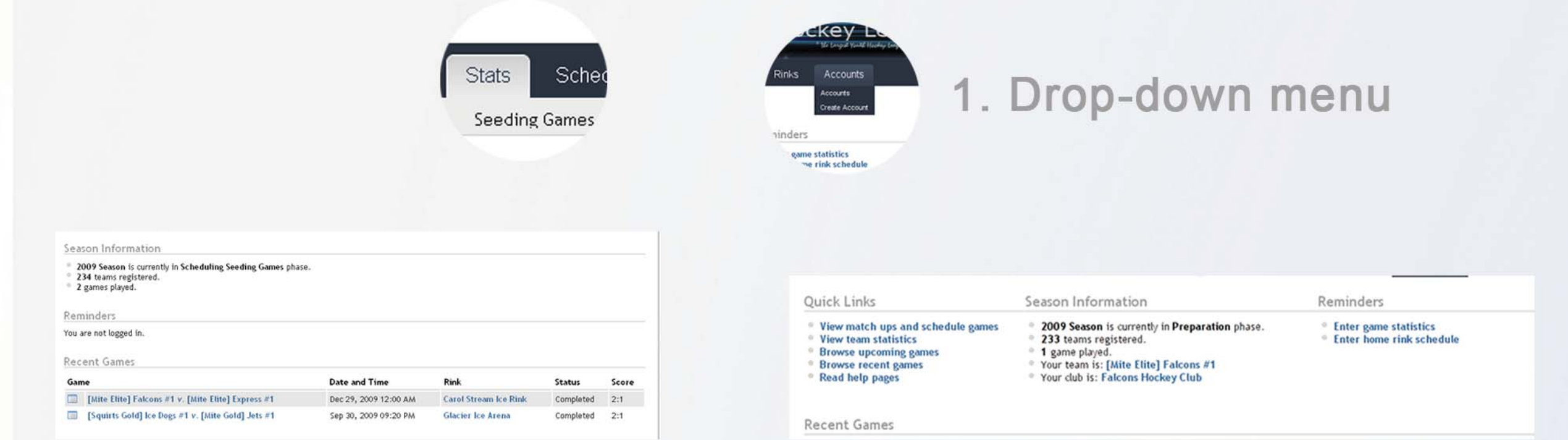
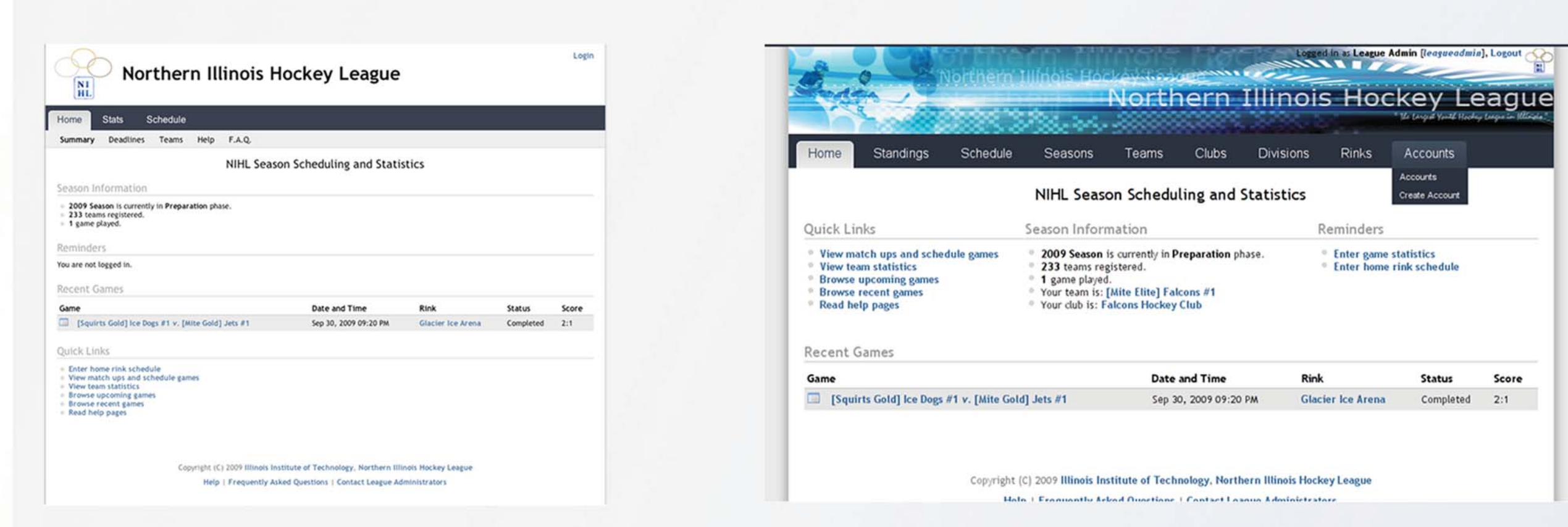
DEVELOPMENT



- Cyclic match making algorithm diagram
- Depicts first home&away match for each of 8 teams
- Directional arrows indicate matches

Scheduling Algorithm

DESIGN



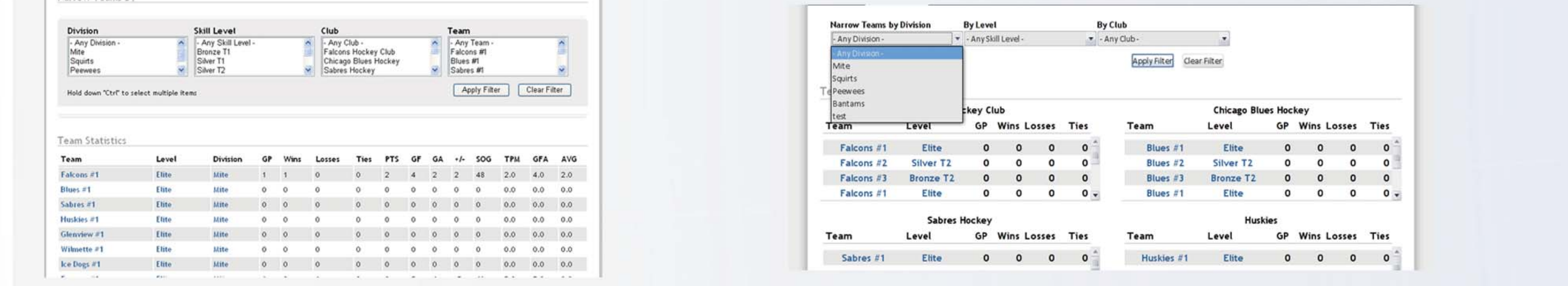
1. Drop-down menu



2. Layout structure



3. Banner/Design/color



4. Team Information

USABILITY TESTING

TEST PROCESS

1. PREPARATION
 - Design and implement a website with more functionality
 - Implementation of game scheduling
 - Inputting statistics
 - Administrative tasks
2. PRE TEST
 - Examine ease of use of website
 - Created a Usability test
3. TEST
 - Usability Test
 - Tested 7 people total
 - Positive responses overall
4. APPLY TO THE SITE DEVELOPMENT
 - Update website with user recommendations
 - Implement testing findings

Satisfaction of the overall system



Recommendations

Recommendations	Importance
1. Add scheduling functionality to the test	High
2. Add a confirmation page after data entry to verify input	High
3. Switch the login to the left side of the screen	Medium
4. Fix the inconsistent format of phone numbers	Medium
5. Fix the inconsistent format of dates	Medium
6. Remove or edit the active checkbox	Low

