



Fakulteten för Datavetenskap - 2011

# **Development of an Application for Managing Speed Skating Events**

Karlstad, 9th of June 2011

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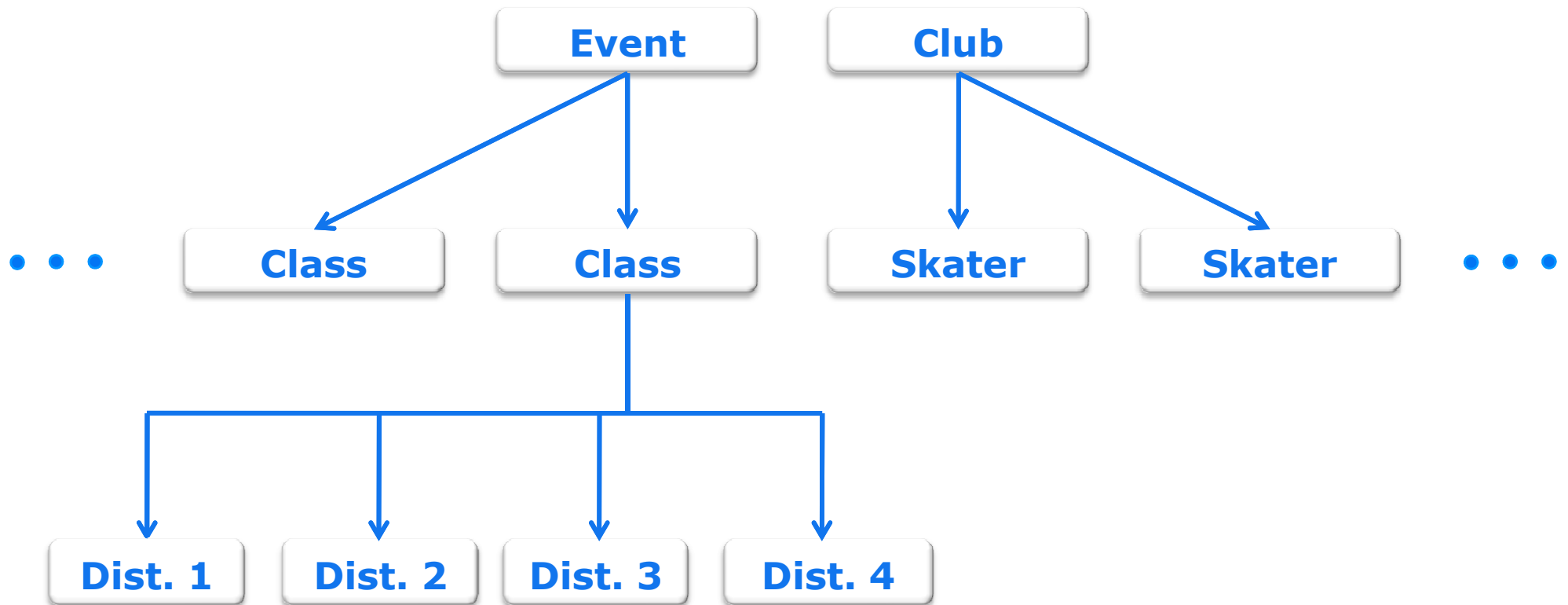


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# Introduction to Speed Skating

- Competitive form of ice skating
- Division into classes according to age and gender
- Skaters race 4 distances in their class
- 2 skaters starting at the same time
- Manually or automatically time-measuring
- Skater can:
  - Complete a race
  - Fall, have a personal best, have a personal best after falling
  - not start, not finish, be disqualified
- Before the race → Starting list
- After the race → Result list

# Introduction to Speed Skating





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## Steps for Creating and Managing an Event

- Create clubs and skaters
- Create classes and distances
- Create an event and register classes and distances
- Add skaters to classes of the event
- Create starting list for each race
  - Different sorting algorithms
- Enter results with status
- Create a result list



## Background – The old System

Karlstad Skridskoklubb

Klubbar Akare Tävlingar Klasser

Klubblista  
Lägg till klubb

### Klubblista

Namn	Hemsida	Kontakt
<a href="#">Karlstad Speed Skating Club</a>	<a href="http://www.karlstadsk.org">www.karlstadsk.org</a>	<a href="#">Arne Nilsson</a>



## Background – Required Changes

	Old System	New System
	<ul style="list-style-type: none"><li>• Server-Application</li></ul>	<ul style="list-style-type: none"><li>• Desktop-Application</li></ul>
User Interface	<ul style="list-style-type: none"><li>• Web-based UI</li></ul>	<ul style="list-style-type: none"><li>• Regular UI</li></ul>
Database	<ul style="list-style-type: none"><li>• MySQL-database</li></ul>	<ul style="list-style-type: none"><li>• SQL-database</li><li>• Import and Export Possibility</li></ul>
Starting List	<ul style="list-style-type: none"><li>• Enter results</li></ul>	<ul style="list-style-type: none"><li>• Enter results</li><li>• Different sorting algorithms</li><li>• Export to Microsoft Excel</li></ul>
Result List		<ul style="list-style-type: none"><li>• Sort skaters by result</li><li>• Export to Microsoft Excel</li></ul>



## The Application – The Starting List

- Showing the skaters in starting order
- Paired up
- Order depending on sorting algorithm
  - Random
  - Personal Best
  - Ranking

### Starting List - Karlstad Nordiska - Pojkar 11-12 - Distance 1 - 500m

Pair	Lane	No.	Name	Country	Club	Result	Status	Personal Best
1	O	5	Mathias Solberg	NOR	Kongsvinger Skøyteklubb	01:02:12		00:59:74
2	I	2	Max Sjöstedt-Eriksson	SWE	IF Thor	01:00:42		01:00:07
2	O	7	David Karlingsjö	SWE	SK Trollhättan	00:55:23		00:53:92
3	I	3	Isak Höiby	NOR	Kongsvinger Skøyteklubb	00:00:00	Disqualified	00:53:92
3	O	4	Per Henry Röttum	NOR	Kongsvinger Skøyteklubb	01:31:04	Fell	01:19:79
4	I	6	Kevin Jacobsson	SWE	Motala AIF	00:00:00	Pending	01:10:45
4	O	1	Erik Wetterdal	SWE	IF Thor	00:00:00	Pending	01:25:78





## The Application – The Result List

- Depending on the chosen races
- Shows skaters sorted by achieved time and status

### Result list - Karlstad Nordiska - Pojkar 11-12 - Distance 1 - 500m

Rank	No.	Name	Country	Club	Pair	Lane	Result	Points	Status
1	7	David Karlingsjö	SWE	SK Trollhättan	2	O	00:55:23	55.23	
2	2	Max Sjöstedt-Eriksson	SWE	IF Thor	2	I	01:00:42	60.42	
3	5	Mathias Solberg	NOR	Kongsvinger Skøyteklubb	1	O	01:02:12	62.12	
4	4	Per Henry Röttum	NOR	Kongsvinger Skøyteklubb	3	O	01:31:04	91.04	Fell
5	1	Erik Wetterdal	SWE	IF Thor	4	O	00:00:00	0	Pending
6	6	Kevin Jacobsson	SWE	Motala AIF	4	I	00:00:00	0	Pending
7	3	Isak Höiby	NOR	Kongsvinger Skøyteklubb	3	I	00:00:00	0	Disqualified



# Demonstration

The interface consists of a sidebar on the left with the following buttons: Events, Starting list, Result list, Classes, Distances, Clubs, Skaters, Export Database, and Import Database. The main area is divided into three sections:

- Skaters Table:** A table with columns: First Name, Last Name, Club, and Active. The table contains 25 rows of skater data. The row for Adam Axelsson is highlighted.
- Skater Form:** A form for editing a skater's information. It includes fields for First name, Last name, Gender (set to Male), Personal Nr., and Club (set to Eskilstuna IK). There is an "Add new Skater" button.
- Skater Details:** A section for the selected skater, Adam Axelsson. It shows: Personal number, Club (SK Winner), Gender (Male), and Active (True). There are "Remove" and "Edit Information" buttons.
- Personal Bests Table:** A table with columns: Distance and Time. It lists three entries: 500m (00:44:17), 1000m (01:27:21), and 1500m (02:15:05). There is a "Remove" button and an "Add personal best" button.

First Name	Last Name	Club	Active
Erika	Lindgren	Södermalms Idrottsklubb	True
Oskar	Gustafsson	Sundsvalls SK	True
David	Hjalmarsson	Stockholm Speedskaters	True
Adam	Axelsson	SK Winner	True
Anders	Olsson	SK Winner	True
Markus	Hjalmarsson	SK Winner	True
Nils	van der Poel	SK Trollhättan	True
David	Karlingsjö	SK Trollhättan	True
Emil	Ström	SK Trollhättan	True
Hampus	Larsson	SK Trollhättan	True
David	Andersson	SK Trollhättan	True
Hanna	van der Poel	SK Trollhättan	True
Gustav	Åkesson	Motala AIF	True
Kevin	Jacobsson	Motala AIF	True
Emma	Åkesson	Motala AIF	True
Vegard	Hansen	Kongsvinger Skøyteklubb	True
Mathias	Solberg	Kongsvinger Skøyteklubb	True
Per Henry	Röttum	Kongsvinger Skøyteklubb	True
Isak	Höiby	Kongsvinger Skøyteklubb	True
Mats	Andersson	Kongsvinger Skøyteklubb	True
Kristine	Hansen	Kongsvinger Skøyteklubb	True
Anna	Andersson	Kongsvinger Skøyteklubb	True
Amanda	Bö Lysö	Kongsvinger Skøyteklubb	True
Selma	Bö Lysö	Kongsvinger Skøyteklubb	True
Frans	Bergentall	IK Wega	True
Waldemar	Bergentall	IK Wega	True
Tilda	Carlsson	IK Wega	True

Distance	Time
500	00:44:17
1000	01:27:21
1500	02:15:05



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## Conclusion

### The Application:

- Includes all required functionality
- Can be used by the customer



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Any Questions?





Thank you for listening!

