

Tietokantasovellus

Contents

1	Introduction.....	3
2	System Overview	4
2.1	Use Case Diagram	4
2.2	User Groups.....	4
3	Use Cases.....	5
4	Entities.....	6

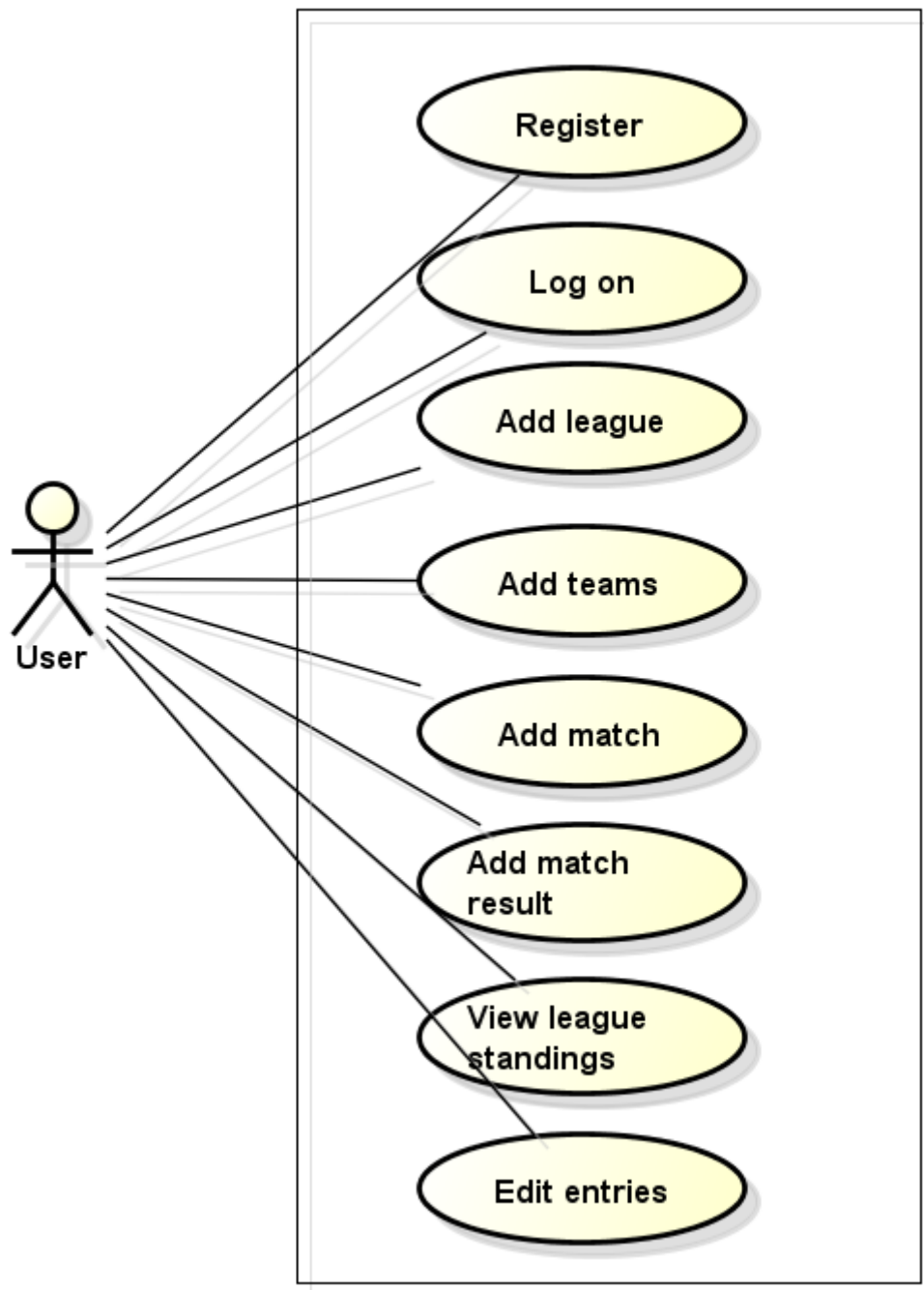
1 Introduction

The aim is to create a web application for storing and viewing football results. The user will be able to add new football leagues and add match results to existing leagues. The user can view the results of individual matches and view the league standings.

The application will be implemented in Java and powered by Apache Tomcat. PostgreSQL will be used as the database system.

2 System Overview

2.1 Use Case Diagram



2.2 User Groups

User

A user is a registered user of the application.

3 Use Cases

Register:

The user registers for the service by choosing a user name and password.

Log in:

The user logs in to the system using the chosen user name and password.

A prerequisite for all use cases is that the user has registered logged on to the system.

Add league:

The user submits the name of the league.

Add teams:

The user specifies the name of one or more teams.

Add season:

The user specifies the name of the season.

Add match:

The user specifies the league, season and date of the match and picks the teams playing.

Add match result:

The user adds the score of the teams.

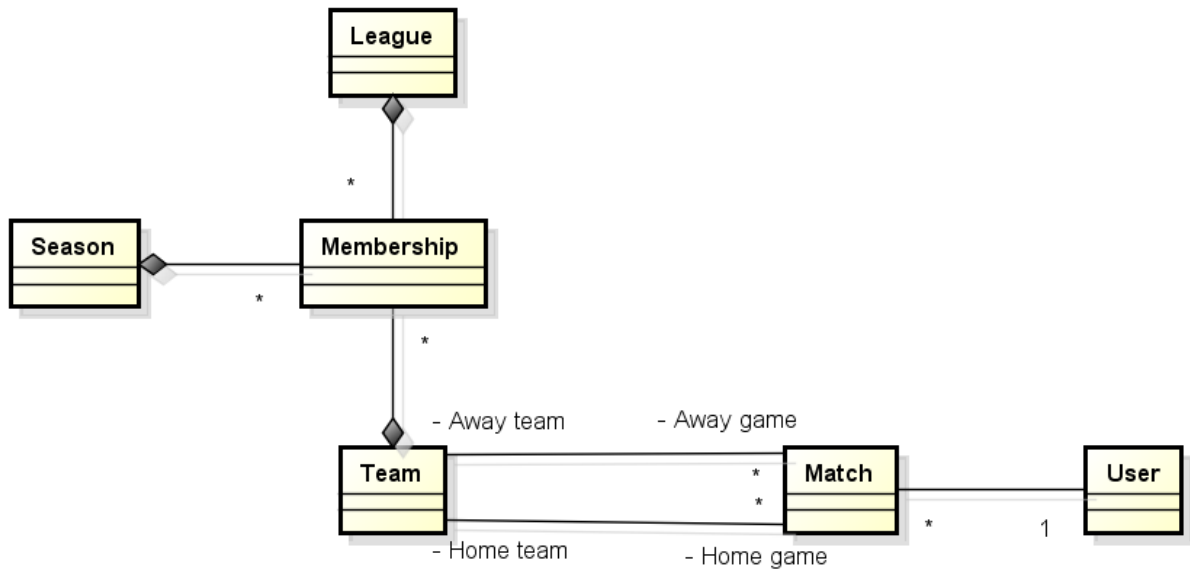
View league standings:

The user can review the current standings of a specific league and season. The standings show how many games each team has played, aggregated scored and conceded goals and points.

Edit entries:

The user can e.g. change the date of a match or edit the match result.

4 Entities



Entity: League

Attribute	Domain	Description
Name	varchar, max 30 characters	The name of the league
LeagueID	Non-negative integer	Index
Every membership is associated with one league and a league can be associated with any number of memberships.		

Entity: Membership

A membership defines a team's participation in a league for a specific season. Every membership is associated with exactly one league, team and season whereas a league, a team or a season can be associated with any number of memberships.

Entity: Season

Attribute	Domain	Description
Name	varchar, max 9 characters	The name of the season
Every membership is associated with one season and a season can be associated with any number of memberships.		

Entity: Team

Attribute	Domain	Description
Name	varchar, max 30 characters	The team name
TeamID	Non-negative integer	Index

Every membership is associated with one team and a team can be associated with any number of memberships. In a match one time plays as home team and another team as away team. Teams can play many matches.

Entity: Match

Attribute	Domain	Description
MatchID	Integer	Index
Home	TeamID	The home team
Away	TeamID	The away team
HomeScore	Integer	The number of goals that the home team scored
AwayScore	Integer	The number of goals that the away team scored
Date	Date	The date of the match in the format 31-01-2013
Edited	TIMESTAMP	The time when the match record was last edited

In a match one time plays as home team and another team as away team. Teams can play many matches. Each match record is associated with the user who last edited the record. A user can edit many match records.

Entity: User

Attribute	Domain	Description
Username	varchar	
Password	varchar	

A user must register with a username and password in order to use the service. Matches are associated with the last user who edited the match record.
