

Database Systems

CMPT 308

– Lab 9: Normalization Three - 20 points

Goals	To further develop your facility with the art and science of normalization.
Scenario	<p>You have been captured by the Star Helix Security and tasked with designing a database for the Belters Little League Sports Alliance on Ceres Station. Here are some facts:</p> <ul style="list-style-type: none">• The league consists of many teams spread over three age groups.• The three age groups are as follows: under 10, 10 through 14, over 14• Each team plays in exactly one age group.• A team consists of many players, one or more assistant coaches, and one head coach.• We have first and last names, addresses, and phone numbers for all players and coaches.• For all coaches we need know the number of years they have been coaching.• A player can play on only one team.• A coach can coach several teams as long as each team is in a different age group.
Deliverables	<ol style="list-style-type: none">1. Identify and document all functional dependencies.2. Draw a fully annotated E/R diagram that illustrates the Platonic ideal of beautiful and correct relational database design.3. Convince me that your database is in 3NF (or even better, in Boyce-Codd Normal Form).
Resources	<ul style="list-style-type: none">• Chapters 3 and 4.1 and 4.6 in our text, especially 4.1.11 and 4.6• Stack Overflow - http://stackoverflow.com/questions/tagged/normalization• Microsoft on Normalization - http://support.microsoft.com/kb/283878
Submitting	Submit your ER diagram and documentation as a PDF and your <i>.sql</i> script as text. Push them to your GitHub repository before the due date (see syllabus). Remember to include your name and date. As always, neatness counts.

