Database Normalization

Megan Buys

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Project Description

The school I currently work in has a very large population of student athletes. This fall there were over a hundred boys playing football at either a varsity or a junior varsity level, there were almost a hundred boys and girls that played for the varsity or junior varsity team, and there were about a hundred cross country runners. During the winter season there were over a hundred male and female athletes playing basketball at both the varsity and junior varsity level, there were almost a hundred athletes involved in wrestling, and there were almost a hundred athletes involved in winter track. Currently there are about fifty young men playing varsity or junior varsity baseball, there are thirteen junior varsity softball players and fifteen varsity softball players, and about a hundred spring track runners. Obviously there are many sports teams that were not mentioned in this overview but the point has been made that a majority of the student body is involved with sports during one of the three seasons.

With each team having a head coach and in some scenarios an assistant coach it can still be a lot to manage every player. Besides managing players the coach also some how needs to keep track of all of the apparel and equipment distributed to these young athletes. Whether it be parts of a uniform, or necessary equipment not provided by the individual athlete, it is the coaches responsibility to make sure everything that the team had at the start of the season is accounted for by the end of the season.

My hope is that by creating a database I will be able to keep track of which athlete has what piece of apparel or equipment. My first thought was to use this for my junior varsity softball team this year but than I realized if it is successful I could use it for the varsity level or even the other sports teams as well.
Database Normalization

The name of the database will be “Student Athlete Equipment/Apparel Management Database.” The database will have four categories including Contacts, Equipment, Issues, and Help. There will be a breakdown of each category after clicking on the specific tab to specify how each section will run. My primary key throughout this database will be the athlete’s jersey number. None of them will be able to have a duplicate number while on this team since no duplicates were made or distributed to the athletes. During a sporting event it is crucial no player has a duplicate number because it would ruin the statistics of their hits, plays, etc. Since there is no way that these numbers could be repeated, the jersey numbers make the perfect primary key.

The contact tab will be broken down specifically due to sport. For my team in particular, junior varsity softball, the contact tab will be a collection of each student athlete participating’s first and last name, their cell phone number, their email address, their parents first and last name and their email address as well. The data type will be mostly text but also numbers for the phone numbers of the contacts. This information will only be used in the event that the coach has to contact the parent when certain school owned equipment or apparel is not returned at the end of the season. This section just provides the coach with any personal information to reach out to the families for their students to return any sport related material owed before they are required to pay for anything not returned back to the school.

The equipment tab will be where the coach lists all of the school own equipment or apparel lent out to the athletes at the beginning of the season. This will include their jersey (size), their pants (size), their belts, and any other materials that are provided to the
team including helmets, bats, etc. As soon as these materials are distributed they will be recorded and expected to be collected at the end of the season in the same condition. Additionally, in this section the coach can record any apparel the team wishes to order, some covered by the booster club, others paid for by the athlete. While making such purchases is optional for the team, it will be recorded to make sure everyone has paid their dues before the order arrives. This category will be primarily text data for the size, uniform articles, and extra equipment.

The issues tab is where the coach can mark the condition of the equipment. Maybe notes for next year if the team has enough uniforms or helmets, or notes on the condition of the apparel and equipment before, during, and after the season. This is good information to track to determine whether the school should invest in new uniforms before the next season or if they can hold off more time. The issues tab will especially help to manage the budget of the team so that it can easily be told what expenses should be prioritized. The data type in this section will be primarily numbers of how much equipment needs to be replaced by the end of the season and how much it will cost to replace.

The help tab will be used once the database spreads to other teams amongst the school/district. For now I will be able to manage my database without the need of a help tab but in the future their will be links to explain how the database works and how all coaches can access it. Also, it will have my information in it so colleagues can send me an email if they are struggling. This sections data type will be primarily text.

The hope for this database is to easily keep track of all of the athletic equipment used throughout the school year. While there are three main seasons at the high school
level, modified sports could use this as well for middle school ages. By all of the coaches working together, it would be easy to stay on top of athletes who owe equipment or money to the school that way we can be sure to manage finances accurately.