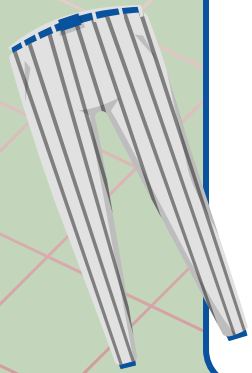
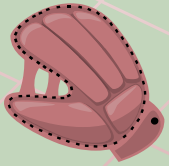
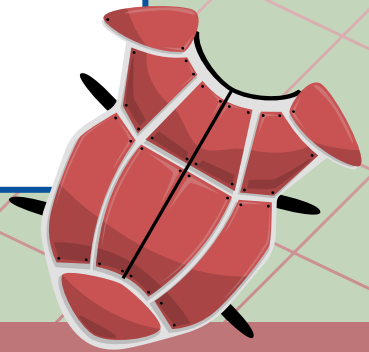




Charlotte Swingers

Cole Bloomer, Joseph Reinhart, Sara Gassew, Mikaela Olaya, Alec Carpenter, Samra Kanwal

About

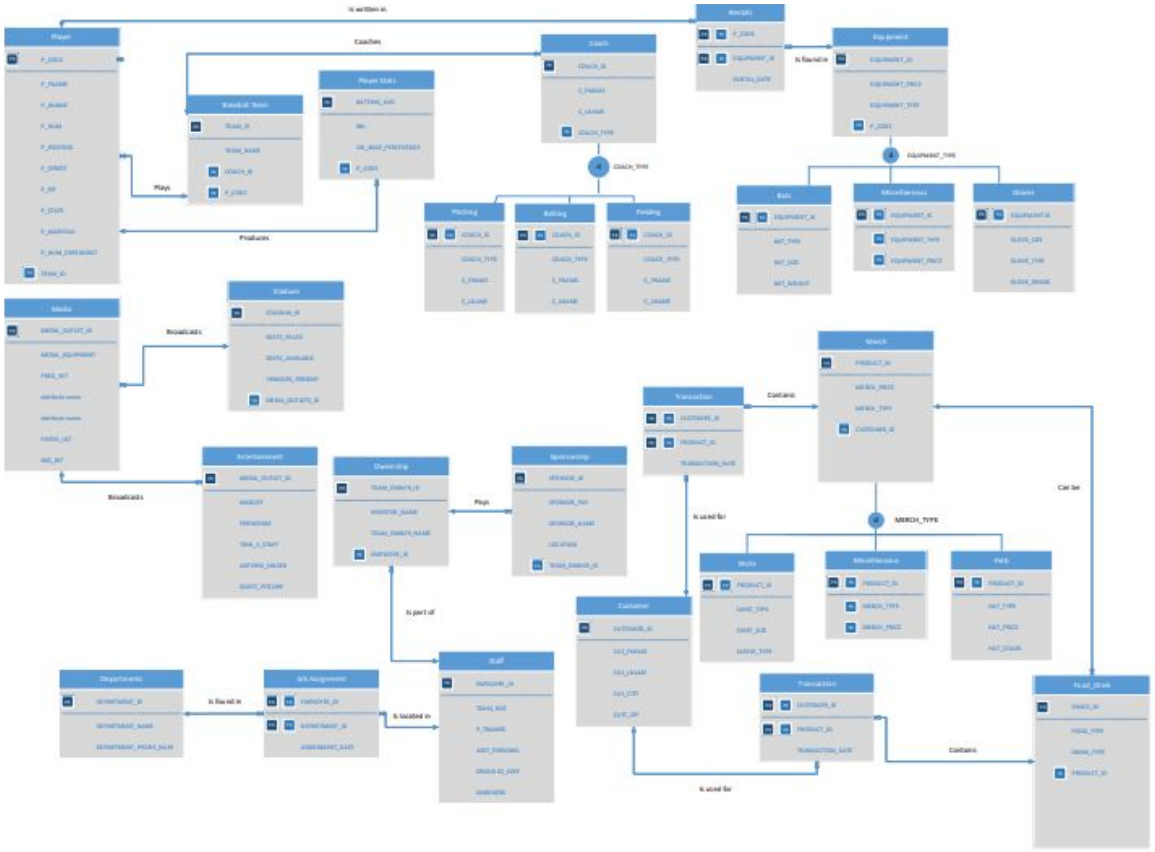
1. Company Overview
    a. Expansion team added to the MLB
    b. Seeks to use data analytics to improve organizational decision making
2. Problems
    a. Stadium food sanitation
    b. Player injuries
    c. Updating player information

About

1. Business Constraints
    a. Weather related game cancellation
    b. Stadium capacity
    c. Roster capacity
    d. Player payroll budget
2. Project Objectives
    a. Accurate database to improve decision making

Entities

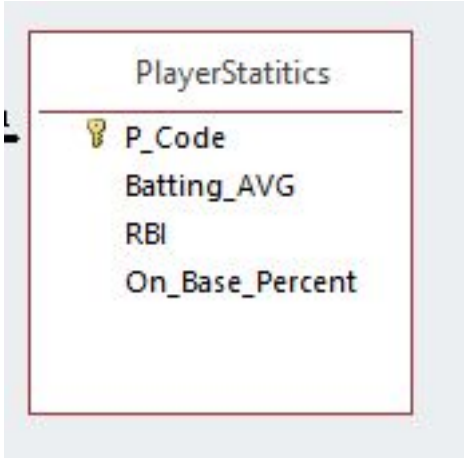
1. Originally had 28 total on Visio
    a. Slimmed down to 17 when implementing into Access
2. We are going to highlight 4 specifically, which are some of our most important entities:
    1. Player Statistics
    2. Equipment
    3. Employee
    4. Department



Is written in
Coaches
Is found in
Plays
Produces
Broadcasts
Contains
Can be
Is used for
Is part of
Is located in

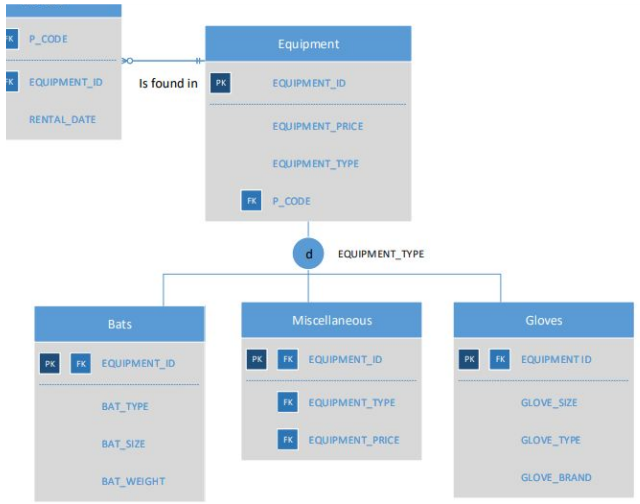
Entities – Player Statistics

1. Attributes include:
    a. Batting Average
    b. Runs Batted In (RBI)
    c. On-Base Percentage
    d. Player Code (Primary Key)
2. Relationship
    a. Connects with Player Information table with a 1 to many relationship
3. Why do we collect this data?



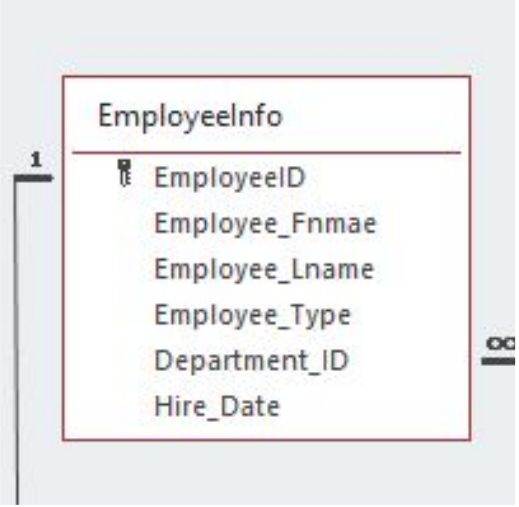
Entities – Equipment

1. Attributes:
    a. Equipment ID (Primary Key)
    b. Equipment Price
    c. Equipment Type (subtype Discriminator)
2. Subtypes:
    a. Bats
    b. Gloves
    c. Miscellaneous
3. Relationship
    a. Connects with Player Information table



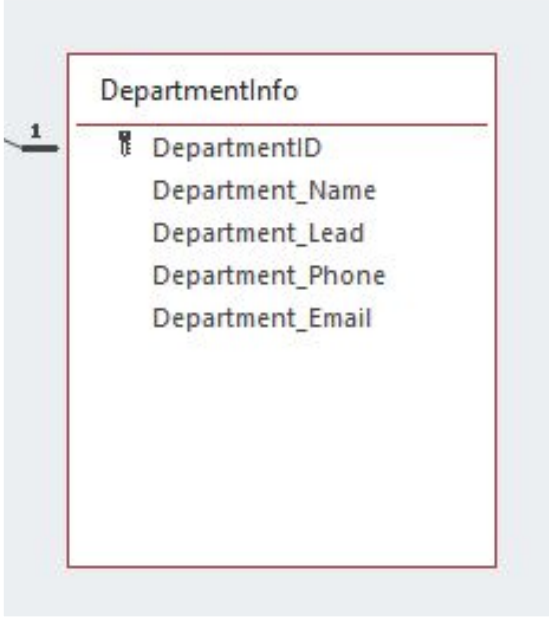
Entities – Employee

1. Attributes:
    a. Employee ID (Primary Key)
    b. Employee First & Last Name
    c. Employee Type
    d. Hire Date
    e. Department ID (Foreign Key)
2. Relationship
    a. Connects to the Department table with a 1 to many relationship
    b. Its primary key also connects it to the Coach Information table



Entities – Department

1. Attributes
    a. Department ID (Primary Key)
    b. Department Name
    c. Department Lead
    d. Department Phone & Email
2. Relationship
    a. Has a 1 to many relationship with the Employee Information table



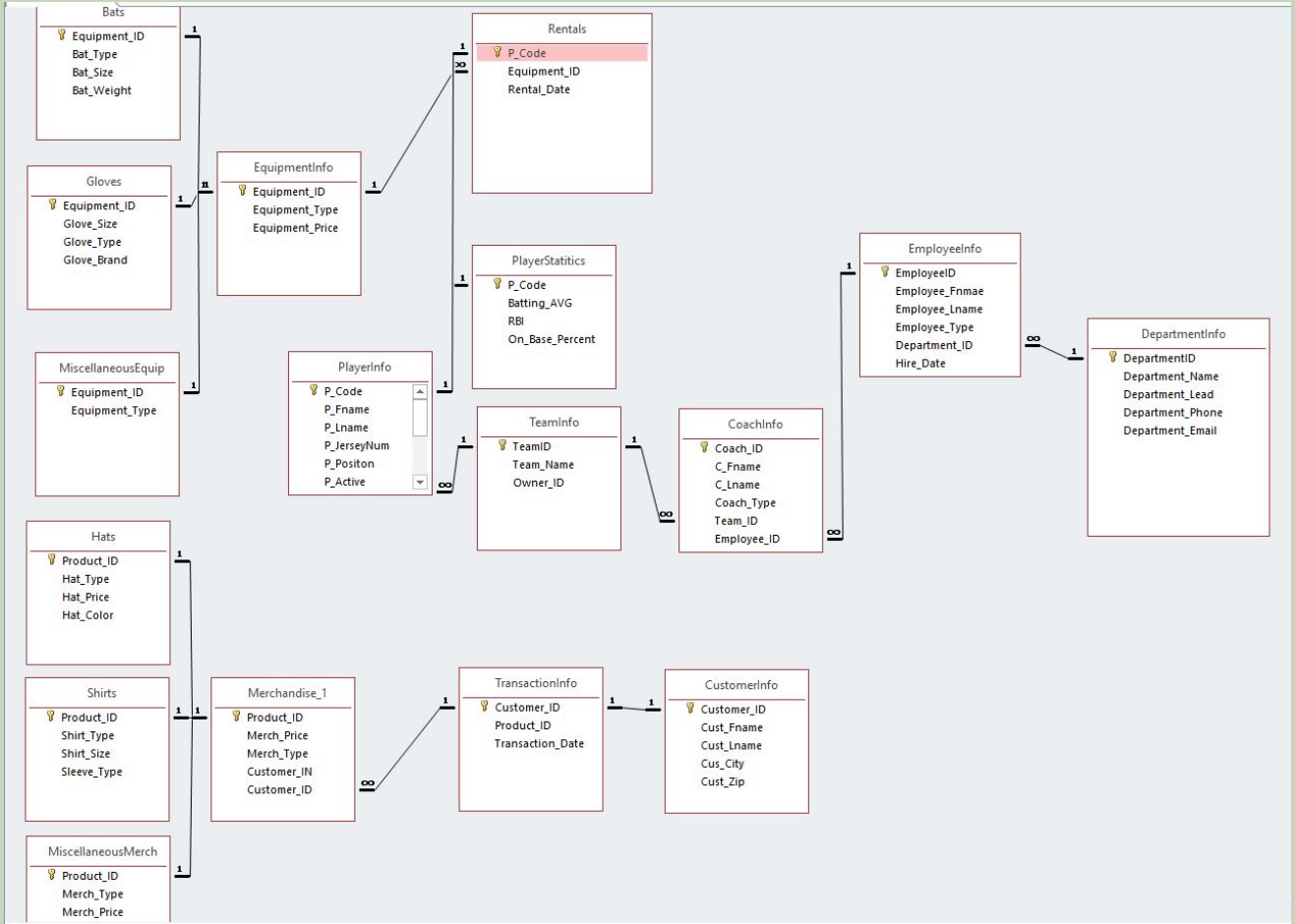
Data Dictionary

Table Name	Attribute Name	Type	PK,FK	Description
Player	P_Code	INTERGER	PK	
	P_Fname	VARCHAR(30)		
	P_Lname	VARCHAR(30)		
	P_JerseyNum	NUMBER(2,1)		
	P_Position	CHAR(10)		
	P_Active	BINARY		
	P_Street	VARCHAR(50)		
	P_Zip	CHAR(5)		
	P_state	CHAR(2)		
	P_MaritalStatus	NUMBER(1,0)		
	P_NumDependants	VARCHAR(10)		
	Team_ID	AUTONUM	FK	This entities information is directly related t

Business Rules

1. Player Statistics
    a. One player has many player statistics while there are many statistics that belong to a single player.
2. Equipment
    a. A player can have many types of equipment and many pieces of equipment belong to many players
        i. Subtype created called rentals
3. Employee
    a. One employee can have one job type and belong to one department
4. Department
    a. One department can have many staff members and each staff member can be assigned to one department.

Business Rules- Relationships

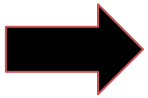


Field Name	Data Type
P_Code	AutoNumber
P_Fname	Short Text
P_Lname	Short Text
P_JerseyNum	Number
P_Positon	Short Text
P_Active	Yes/No
P_Street	Short Text
P_Zip	Short Text
P_State	Short Text
P_MaritalStatus	Yes/No
P_NumDependents	Number
Team_ID	Short Text

General | Lookup

Field Size	Long Integer
New Values	Increment
Format	
Caption	
Indexed	No
Text Align	General

Forms



PlayerInfo

P_Code	1
P_Fname	Mikaela
P_Lname	Olaya
P_JerseyNum	21
P_Positon	Short Stop
P_Active	☑
P_Street	123 Baseball Lane
P_Zip	12345
P_State	NC
P_MaritalStatus	☐
P_NumDependents	0
Team_ID	1946

1. Forms are used to create a user interface for a database application
2. Allows for easy addition of information into a database
3. Determines the format of the Information input

PlayerStatitics

P_Code	1
Batting_AVG	.345
RBI	8
On_Base_Percent	.367

Reports

Merchandise

Product_ID	Merch_Price	Merch_Type	Customer_IN	Customer_II	Click to Add
1	$60	Shirt	1		
2	$50	Shirt	2		
3	$30	Hat	2		
4	$25	Hat	3		
5	$29	Player Cards	4		
(New)				0	

Reports are used to provide a concise, easily digestible representation of an entity's information

Reports cont.

PlayerStatitics

P_Code	Batting_AVG	RBI	On_Base_Percent
1	.345	8	.367
2	.301	2	.417
3	.320	4	.395
4	.330	6	.400
5	.294	5	.333
6	.365	8	.400

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