FOOTBALL LEAGUE MANAGEMENT SYSTEM

Final Project for SQL Module

by Harshit Chand

1. Description:

Following database schema is designed to function as a backend storage database for a web application built to manage a Football league management system.

By storing information in a relational database, all the tasks related to daily functioning of the Football league management system can be performed easily and much more efficiently. Some of the benefits of using th store data over traditional paper registers are as follows:
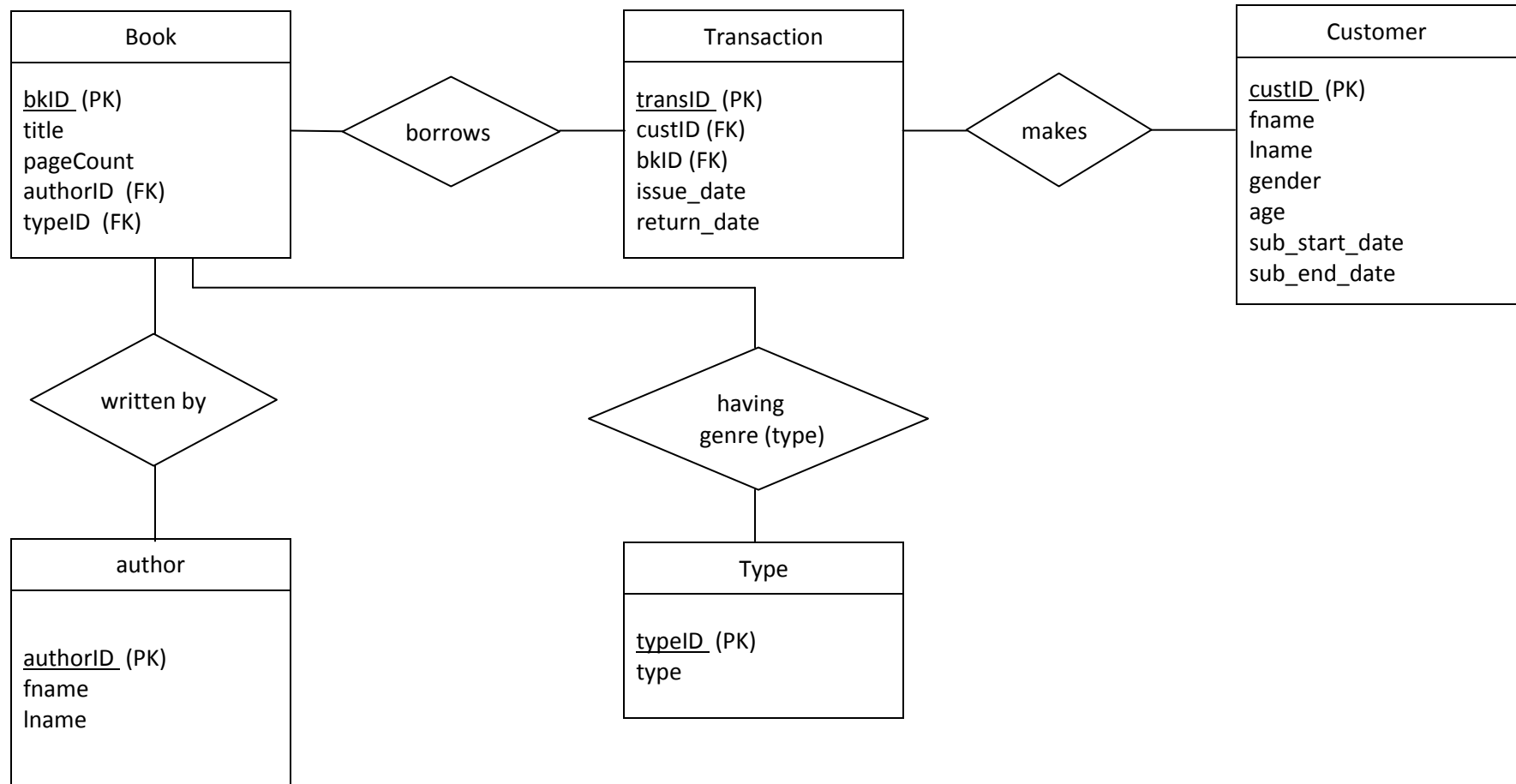
- Updating and modifying booklist in the library is much easier and efficient
- Maintaining customer details and their account is easy and efficient.
- Calculations like due payments can be done automatically by DBMS, thus eliminating human error
- RDBMS provides many ways to analyze available data, thus helping in making more informed decisions about inventory management and other aspects of library management

This database contains 5 tables:

1. Each team consists of a number of players. No player belongs to more than one team.
2. Every Players has his own statistics. (number of goals, assists, red cards, yellow cards, clean sheets, etc.)
3. Managers
4. Contracts
5. Matches

How these tables/entities are related to each other is shown pictorially on next page through ER diagram, i.e., Entity Relationship Diagram.

2. ER-Diagram for Library Management System:

Book
bkID (PK) title pageCount authorID (FK) typeID (FK)

borrows

Transaction
transID (PK) custID (FK) bkID (FK) issue_date return_date

makes

Customer
custID (PK) fname lname gender age sub_start_date sub_end_date

written by

author
authorID (PK) fname lname

having
genre (type)

Type
typeID (PK) type

```
(34,'Nicholas','L','Pareja','05-MAY-1990','gk',67,6.5,'Italian',26,'Valencia',134)
(35,'Diego','','Gonzalez','10-MAY-1995','mid',63,5.8,'American',21,'Valencia',135)
(36,'Daniel','P','Carrico','19-SEP-1989','lb',67,6.7,'French',09,'Valencia',136)
(37,'Adil','S','Rami','12-OCT-1987','gk',56,5.7,'Hungarian',12,'Arsenal',137)
(38,'Samir','G','Nasri','09-JUL-1987','mid',64,5.9,'Italian',23,'Arsenal',138)
(39,'Paulo','','Ganso','23-MAR-1985','lb',65,6.0,'Spanish',26,'Arsenal',139)
(40,'Franco','','Vasquez','12-JUL-1990','gk',63,5.8,'English',29,'Aston Villa',140)
(41,'David','','Button','13-SEP-1987','mid',65,5.9,'English',21,'Aston Villa',141)
(42,'Scott','D','Malone','12-MAR-1986','rb',63,6.1,'English',12,'Aston Villa',142)
(43,'Dennis','O','Donald','17-MAR-1987','gk',59,5.8,'English',11,'Chelsea',143)
(44,'Marek','R','Rodak','12-OCT-1987','rwf',67,6.7,'English',16,'Chelsea',144)
(45,'Marcus','F','Williams','15-DEC-1986','lb',67,6.9,'English',25,'Chelsea',145)
(46,'Tim','K','Ream','12-JAN-1993','gk',65,6.2,'English',12,'Everton',146)
(47,'Matt','L','Smith','29-JUL-1990','st',67,6.3,'English',15,'Everton',147)
(48,'Floyd','Z','Lee','23-OCT-1990','lb',64,6.5,'Japanese',17,'Everton',148)
(49,'Jim','P','Carrey','12-APR-1978','gk',68,6.7,'American',12,'Fulham',149)
(50,'Joza','K','Bed','13-MAR-1993','rwf',71,6.8,'English',14,'Fulham',150);
```

2. Matches :

```
INSERT INTO MATCH VALUES -
(1,'02-APR-2016','16:40','6-2','Chelsea','Liverpool','Stamford Bridge',30,56,76)
(2,'04-APR-2016','12:22','4-5','Almeria','Barcelona','Juegos Deportiva',29,82,24)
(3,'05-APR-2016','18:05','3-2','Athletic Bilbao','Getafe','San Mames',31,24,42)
(4,'06-APR-2016','14:12','2-4','Espanyol','Malaga','Estadi Cornella El',32,35,84)
(5,'08-APR-2016','13:16','4-3','Mallorca','Numancia','Son Bibiloni',35,25,20)
(6,'09-APR-2016','11:25','0-4','Osasuna','Sevilla','Juegos Deportivo',25,23,30)
(7,'12-APR-2016','09:45','4-2','Real Madrid','Osasuna','Santiago Bernabeau',39,78,19)
(8,'14-APR-2016','12:12','2-3','Sevilla','Real Madrid','The Oval',38,56,85)
(9,'15-APR-2016','15:16','4-1','Arsenal','Valencia','The Gunners',31,42,39)
(10,'16-APR-2016','10:25','1-0','Valencia','Almeria','The Gardens',40,52,45)
(11,'17-APR-2016','11:46','0-5','Barcelona','Chelsea','Camp Nou',28,15,77)
(12,'19-APR-2016','12:26','5-3','Malaga','Athletic Bilbao','La Rosaleda',27,36,55)
(13,'21-APR-2016','16:00','3-0','Getafe','Espanyol','Coliseum Alfonso',36,98,25)
(14,'22-APR-2016','18:56','2-1','Portsmouth','Mallorca','Theatre of Dreams',32,75,39)
(15,'26-APR-2016','08:00','1-5','Numancia','Arsenal','The Colloseum',31,81,35)
(16,'30-APR-2016','07:56','5-4','Aston Villa','Fulham','Villa Park',33,68,48)
(17,'01-MAY-2016','10:06','0-5','Everton','Aston Villa','The Hub',35,06,96)
(18,'05-MAY-2016','16:50','3-2','Fulham','Everton','The MLF',34,96,13)
(19,'07-MAY-2016','15:20','5-1','Liverpool','Sunderland','The Anfielders',37,62,56)
(20,'10-MAY-2016','18:23','2-0','Sunderland','Portsmouth','Stadium of Light',28,43,85);
```

3 Goals:


```
INSERT INTO GOAL VALUES-
(1,'60MIN06SEC',2);
(2,'49MIN24SEC',18);
(3,'36MIN56SEC',36);
(4,'72MIN12SEC',42);
(5,'19MIN01SEC',4);
(6,'06MIN33SEC',8);
(7,'43MIN56SEC',12);
(8,'89MIN17SEC',22);
(9,'75MIN35SEC',14);
(10,'23MIN42SEC',52);
(11,'35MIN32SEC',16);
(12,'52MIN20SEC',6);
(13,'86MIN51SEC',20);
(14,'12MIN41SEC',24);
(15,'62MIN36SEC',54);
(16,'46MIN42SEC',38);
(17,'86MIN35SEC',56);
(18,'09MIN41SEC',48);
(19,'48MIN02SEC',58);
(20,'17MIN17SEC',26);
```

```
(32,0,0,12,5,0);
(35,0,1,5,6,0);
(38,2,0,15,1,0);
(41,0,0,12,6,0);
(44,0,1,15,7,0);
(47,1,0,11,5,0);
(50,3,1,14,3,0);
(53,0,0,55,2,0);
(56,2,0,2,2,0);
(59,1,1,4,4,0);
(3,5,9,3,0,0);
(6,4,7,4,2,0);
(9,6,8,5,0,0);
(12,3,10,1,0,0);
(15,2,4,1,1,0);
(18,1,15,2,2,0);
(21,4,1,3,0,0);
(24,5,0,0,3,0);
(27,1,4,0,2,0);
(30,2,5,4,1,0);
(33,3,3,1,0,0);
(36,0,5,0,3,0);
(39,1,12,1,3,0);
(42,0,9,0,4,0);
(45,4,1,4,4,0);
(48,5,4,0,5,0);
(51,1,5,1,1,0);
(54,5,6,0,0,0);
(57,11,7,2,0,0);
(60,6,12,4,0,0);
```

4. Commands:

- **Create Database:**
  CREATE DATABASE Rtu;

- **Select Database:**
  USE Rtu;

- **Create table named "Players":**

  Create table player1 (player_id int primary key,fname varchar(20),Mname varchar(20),lname varchar(20), DOB Date,Position varchar(10),weight int,Height int,Nationality Varchar(20),Kit int,Teamname Varchar(20), ContractID int);

- **Create table named "Matches":**
  CREATE TABLE MATCH
  (
  MATCH_ID INT primary key,
  MDATE DATE,
  TIME VARCHAR2(10),
  RESULT VARCHAR2(10),
  HOMETEAM VARCHAR2(20),
  AWAYTEAM VARCHAR2(20),
  HOSTEDBY VARCHAR2(20),
  TEMP_DEG NUMBER,
  PRECIP_PERCENT NUMBER,
  HUMID_PERCENT NUMBER
  );

- **Create table named Goals:**

  CREATE TABLE GOAL
  (
  GOAL_ID INT PRIMARY KEY,
  TIME VARCHAR2(10),
  PLAYERID NUMBER
  );

- **CREATE TABLE STATS**
  (
  PLAYER_ID Int PRIMARY KEY,
  REDCARDS NUMBER,
  YELLOWCARDS NUMBER,
  GOALS NUMBER,
  ASSISTS NUMBER,
  CLEANSHEETS NUMBER
  );