DAMG 6210 - DATA MANAGEMENT AND DATABASE DESIGN PROJECT-2

Problem Statement:

The present system which is an offline system involves team management attending auction which is held at a particular venue in a particular time, maintain the record of a player and bid for him. A player needs to convey his availability to the cricket board(including foreign players). Also it is not easy to manage the whole event which involves finalizing the venues/home grounds, maintain the player statistics of every season, bid information, maintain the list of sold/unsold/retained players, trades between teams, replacements . The whole process is time and money consuming. Moreover team owners need to travel from across the country to the venue. Also external users(public/fans) who wants to view the auction in real time cannot attend the event. There are also many others problems that management might face while organizing such a large event.

Proposed solution:

The proposed "Cricket League Management" system is an online portal which is build with a goal of managing a whole cricket league from conducting auction to declaring the winner. Owners and players gets registered into the system and the system is available 24/7, so the owners can bid on the players from any place and anywhere which saves a lot of their time and money. Teams owners can use this system to track the budget/bidding amount/fee paid to the player, search for a particular player, monitor player/team performance, get venue information, perform statistical analysis of players, etc. Players can use this system to register and take part of the auction, keep track of their statistics, get information about venues, etc. The users(public) can access this system to get live updates about the auction and the league, know the statistics of

a player, etc. The cricket board can use this system to maintain the bid information, player statistics, list of sold/unsold/retained players, venues information, team/players history in previous seasons, etc. Only authenticated owners/players can take part in the auction. The database keeps the information about the auction, player history, player/team statistics, venues, etc. There is also an administrator for the whole system who add owners/players, set the bidding amount limit, decide the venues, track the auction, manage the players entry(eligibility) into the auction, etc. The system has strong user authentication.

Entities and Attributes:

Account

Attribute	Data Type
User_id	NUMBER
Username	VARCHAR2(20)
Password	VARCHAR(20)
Age	NUMBER
Sex	VARCHAR(10)
Email	VARCHAR(30)
Contact	VARCHAR(10)

Player

Attribute	Data Type
Player_id	NUMBER
Player_Name	VARCHAR(20)
BasePrice	NUMBER
Type	VARCHAR(10)
Role	VARCHAR(10)
Country	VARCHAR(20)

Owner

Attribute	Data Type
Owner_id	NUMBER
Owner_Name	VARCHAR(20)
Team_Name	VARCHAR(30)
Allotted_Amount	NUMBER

Team

Attribute	Data Type
Team_id	NUMBER
Player_id	NUMBER
Team_Name	VARCHAR(20)
Homeground	NUMBER
Num_Players	NUMBER
Num_Foreign_Players	NUMBER
Captain	VARCHAR(20)

Player_Stat

Attribute	Data Type
STAT_ID	VARCHAR2(10)
Player_id	NUMBER
Match_id	VARCHAR2(10)
Runs	NUMBER
Wickets	NUMBER
Innings	NUMBER
Strike_Rate	NUMBER
Batting_Avg	NUMBER

Attribute	Data Type
Bowling_Avg	NUMBER
Fifties	NUMBER
Centuries	NUMBER

Bid

Attribute	Data Type
Bid_id	VARCHAR(10)
Owner_id	NUMBER
Player_id	NUMBER
Bid_Time	TIMESTAMP
Bid_Status	VARCHAR(10)
Final_Bid_Amount	NUMBER

Payment

Attribute	Data Type
Payment_id	VARCHAR(10)
Bid_id	VARCHAR(10)
Player_id	NUMBER
Reference_Num	NUMBER

Ticket

Attribute	Data Type
Type	VARCHAR2(10)
Price	NUMBER

Booking

Attribute	Data Type
Booking_id	NUMBER
Match_id	VARCHAR2
Type	VARCHAR2
Details	VARCHAR2
Audience_id	NUMBER
Ticket_count	NUMBER

Audience

Attribute	Data Type
Audience_id	NUMBER
Name	VARCHAR2

Match

Attribute	Data Type
Match_id	VARCHAR2
Team1_Id	NUMBER
Team2_Id	NUMBER
Venue_Id	VARCHAR2
Date	DATE
Result	VARCHAR2

Venue

Attribute	Data Type
Venue_Id	NUMBER
Venue_Name	VARCHAR2

Attribute	Data Type
Size	NUMBER
Stands	NUMBER
Capacity	NUMBER
Home_Team_id	NUMBER
City	VARCHAR2

ER DIAGRAM

Cricket league managament system

Account

	Attribute	Type
PK	User_id	Number
	Username	VARCHAR2
	Password	VARCHAR2
	Age	NUMBER
	Sex	VARCHAR
	Email	VARCHAR2
	Contact	VARCHAR2

Owner

	Attribute	Type
PK	Owner_Id	NUMBER
	Owner_Name	VARCHAR2
	Team Name	NUMBER
	Alloted_Amount	NUMBER

Bid

	Attribute	Type
PK	Bid_Id	VARCHAR2
FK	Owner_Id	NUMBER
FK	Player_Id	NUMBER
	Bid_Time	TIMESTAMP
	Bid_Status	VARCHAR2
	Final_Bid_amount	NUMBER

Venue

	Attribute	Type
PK	Venue_Id	NUMBER
	Venue_Name	VARCHAR2
	size	NUMBER
	Stands	NUMBER
	Capacity	NUMBER
	Home_Team_Id	NUMBER
	City	VARCHAR2

Team

	Attribute	Type
PK	Team_Id	NUMBER
FK	Player_id	NUMBER
	Team_Name	VARCHAR2
	Home_Ground	NUMBER
	Num_Players	NUMBER
	Num_Foreign_Players	NUMBER
	Captain	VARCHAR2

Player

	Attribute	Type
PK	Player_Id	NUMBER
	Player_Name	VARCHAR2
	Base_Price	NUMBER
	Type	VARCHAR2
	Role	VARCHAR2
	Country	VARCHAR2

Payment

	Attribute	Type
PK	Payment_Id	VARCHAR2
FK	Bid_Id	VARCHAR2
FK	Player_id	NUMBER
	Reference_Num	NUMBER

Match

	Attribute	Type
PK	Match_Id	VARCHAR2
FK	Team1_Id	NUMBER
FK	Team2_Id	NUMBER
FK	Venue_Id	VARCHAR2
	Date	DATE
	Result	VARCHAR2

Player_Stat

	Attribute	Type
PK	STAT_ID	VARCHAR2
FK	Player_Id	NUMBER
FK	Match_id	VARCHAR2
	Runs	NUMBER
	Wickets	NUMBER
	Innings	NUMBER
	Strike_Rate	NUMBER
	Batting_Avg	NUMBER
	Bowling_Avg	NUMBER
	Centuries	NUMBER
	Fifties	NUMBER

Audience

	Attribute	Type
PK	Audience_ID	NUMBER
	Name	VARCHAR2

Booking

	Attribute	Type
PK	Booking_id	NUMBER
FK	Match_id	VARCHAR2
FK	Type	VARCHAR2
	Details	VARCHAR2
FK	Audience_id	NUMBER
	Ticket_count	NUMBER

Ticket

	Attribute	Type
PK	Type	VARCHAR2
	Price	NUMBER