
Nba_Logical_Model

Logical database model documentation

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1. Model details

Model name:

Nba_Logical_Model

Version:

1.0

Description:

Logical Model of Nba season stats management

2. Entities

2.1. Entity Team

Description:

Team table

2.1.1. Attributes

Attribute name	Type	Is mandatory	Is primary identifier	Description
id	Integer	yes	yes	Id of nba team
name	Char(50)	yes	no	Describe the name of the nab team
abbr	Char(10)	no	no	Abbreviation for the name of team
nickname	Char(50)	no	no	Nickname used for a nab team

2.2. Entity Coach

Description:

Coach table

2.2.1. Attributes

Attribute name	Type	Is mandatory	Is primary identifier	Description
ID	Integer	yes	yes	
name	Char(50)	yes	no	

2.3. Entity Player

Description:

Table that represent a player of nba

2.3.1. Attributes

Attribute name	Type	Is mandatory	Is primary identifier	Description
ID	Integer	yes	yes	

name	Char(50)	yes	no	Name of a player
pos	Char(10)	yes	no	Position on the bench
age	Integer	no	no	Age of the player

2.4. Entity TeamStats

Description:

Table describing the statistics of an nba team

2.4.1. Attributes

Attribute name	Type	Is mandatory	Is primary identifier	Description
ID	Integer	yes	yes	
ELO	Float(32)	yes	no	Advanced derived measure to calculate strength of a nba team
FG_PCT	Float(32)	yes	no	Field Goal Point Percentage
FG3_PCT	Float(32)	yes	no	Three Field Goal Point Percentage
FGM	Float(32)	yes	no	Field Goal made
FG_Missed	Float(32)	yes	no	Field Goal Missed
FGA	Float(32)	yes	no	Field Goal Attempted
FG3M	Float(32)	yes	no	Three Field Goal Point
FG3A	Float(32)	yes	no	Three Field Goal Point Attempted
FG2M	Float(32)	yes	no	Two Field Goal Point

FG2A	Float(32)	yes	no	Two Field Goal Point Attempted
FTM	Float(32)	yes	no	Free Throws
FTA	Float(32)	yes	no	Free Throws Attempted
FT_PCT	Float(32)	yes	no	Free Throws Percentage
FT_Missed	Float(32)	yes	no	Free Throws Missed
ORB	Float(32)	yes	no	Offensive Rebound
DRB	Float(32)	yes	no	Defensive Rebound
TRB	Float(32)	yes	no	Total Rebounds
AST	Float(32)	yes	no	Assist
STL	Float(32)	yes	no	Steals
BLK	Float(32)	yes	no	Block
TOV	Float(32)	yes	no	TurnOvers
PF	Float(32)	yes	no	Personal Fouls
EFFICACY	Float(32)	yes	no	Derived measure for a offensive and defensive efficacy of a team
PIE	Float(32)	yes	no	Measure that indicates players impact on team
POSS	Float(32)	yes	no	Possession's ball of a team

PACE	Float(32)	yes	no	Total number of possession during a season
PTS	Float(32)	yes	no	Total Points of the season

2.5. Entity PlayerStats

Description:

Table describing the statistics of a player

2.5.1. Attributes

Attribute name	Type	Is mandatory	Is primary identifier	Description
ID	Integer	yes	yes	
Gms	Integer	yes	no	Games played during the season
Gstart	Integer	yes	no	Games started from 1" minute
MP	Integer	yes	no	Minutes played during the season
FG	Integer	yes	no	Field Goal
FGA	Integer	yes	no	Field Goal Attempted
FGP	Float(32)	yes	no	Field Goal Percentage
ThreeP	Integer	yes	no	Three Field Goal Point
ThreePP	Float(32)	yes	no	Three Field Goal Point Percentage
ThreePA	Integer	yes	no	Three Field Goal Point Attempted

TwoP	Integer	yes	no	Two Field Goal Point
TwoPP	Float(32)	yes	no	Two Field Goal Point Percentage
FT	Float(32)	yes	no	Free Throws
FTA	Float(32)	yes	no	Free Throws Attempted
FTP	Float(32)	yes	no	Free Throws Percentage
TwoPA	Integer	yes	no	Two Field Goal Point Attempted
DRB	Float(32)	yes	no	Defensive Rebound
TRB	Float(32)	yes	no	Total Rebounds
AST	Float(32)	yes	no	Assist
ORB	Float(32)	yes	no	Offensive Rebound
BLK	Float(32)	yes	no	Block
STL	Float(32)	yes	no	Steals
PF	Integer	yes	no	Personal Fouls
PTS	Integer	yes	no	Total Points of the season
TOV	Float(32)	yes	no	TurnOvers
eFGP	Float(32)	yes	no	Effective Field Goal Percentage

2.6. Entity CoachStats

Description:

Table describing the statistics of a coach during the season

2.6.1. Attributes

Attribute name	Type	Is mandatory	Is primary identifier	Description
ID	Integer	yes	yes	
SeasG	Integer	yes	no	Season Game
SeasW	Integer	yes	no	Season Win
SeasL	Float(32)	yes	no	Season Lose
FranG	Integer	yes	no	Franchise Game
FranW	Integer	yes	no	Franchise Win
FranL	Integer	yes	no	Franchise Lose
CareW	Integer	yes	no	Career Win
CareL	Integer	yes	no	Career Lose
CareWP	Float(32)	yes	no	Career Win Percentage
PoseasG	Float(32)	yes	no	Playoff Game
PoseasW	Float(32)	yes	no	Playoff Win
PoseasL	Float(32)	yes	no	Playoff Lose
PofranG	Float(32)	yes	no	Playoff Franchise Game
PofranW	Float(32)	yes	no	Playoff Franchise Win
PofranL	Float(32)	yes	no	Playoff Franchise Lose
PocareG	Float(32)	yes	no	Playoff Career Game
PocareW	Float(32)	yes	no	Playoff Career Win
PocareL	Float(32)	yes	no	Playoff Career Game Lose

2.7. Entity Arena

2.7.1. Attributes

Attribute name	Type	Is mandatory	Is primary identifier	Description
id	Integer	yes	yes	
city	Char(40)	no	no	
name	Char(40)	yes	no	
capacity	Integer	no	no	

2.8. Entity Staff

2.8.1. Attributes

Attribute name	Type	Is mandatory	Is primary identifier	Description
id	Integer	yes	yes	
owner	Char(50)	yes	no	
manager	Char(50)	no	no	

2.9. Entity Season

Description:

Describe a nab season

2.9.1. Attributes

Attribute name	Type	Is mandatory	Is primary identifier	Description
season	Integer	yes	yes	Year of nba season
start_date	Date	yes	no	Start Date of a season
end_date	Date	yes	no	End Date of a season

2.10. Entity Team_Season

Description:

Refers to a singular season for a team

2.10.1. Attributes

Attribute name	Type	Is mandatory	Is primary identifier	Description
id	Integer	yes	yes	

3. Associations

4. Entity relationships

4.1. Entity relationship Team_Season_Season

Season	1..*	Team_Season
	<->	

4.2. Entity relationship Team_Season_Team

Team	1..*	Team_Season
	<->	

4.3. Entity relationship Staff_Team

Team	1..1	Staff
	<->	

4.4. Entity relationship Arena_Team

Team	*..1	Arena
	<->	

4.5. Entity relationship Team_Season_Player

Player	*..1	Team_Season
	<->	

4.6. Entity relationship Player_PlayerStats

PlayerStats	1..1	Player
	<->	

4.7. Entity relationship Team_Season_TeamStats

TeamStats	1..1	Team_Season
	<->	

4.8. Entity relationship Team_Season_Coach

Coach	1..*	Team_Season
	<->	

4.9. Entity relationship Coach_CoachStats

CoachStats	1..1	Coach
	<->	

5. Association relationships

6. Areas

7. Notes