

Bangladesh Premier League(BPL)

DESCRIPTION

I have made Bangladesh Premier League managemnet system as a model for my database lab assignment. I have prepared five tables to make the assignment.The necessary attributes with data are set in the tables to represent relationship among different attributes in the database.The database represents the scenario of teams participating in the tournament.Each team performance is shown in the BPL by points,rank_list which is calculated by the help of the number of wins,loses,ties,net run_rate in the match .Then player of each team,their salary and performance in the BPL is also shown.Moreover the coach,captain and another supportive man of each team is also represented in the system.The schema diagram,E-R model of the system is also included in the assignment.The necessary queries,their sql and snapshots of the sql are given in the assignment.The snapshots of the table,populated data and constraints are also given in the assignment.

Schema & Attributes:

TEAM(TEAM_NAME,DIVISION,OWNER,TEAM_BUDGET_IN_BDT,TEAM_OFFICIAL_WEBSITE)

TEAM_STATUS(TEAM_NAME,MATCH,WON,LOST,TIED,NET_RUNRATE,POINTS,TEAM_RANK)

PLAYER(PLAYER_ID,PLAYER_NAME,TEAM_NAME,SALARY_IN_BDT,DATE_OF_BIRTH)

PLAYER_STATUS(PLAYER_ID,PLAYER_ROLE,TOTAL_MATCH,TOTAL_RUN,HALF_CENTURY,CENTURY,BEST_BATTING,TOTAL_WICKETS,BEST_BOWLING)

SUPPORT_STAFF(TEAM_NAME,HEAD_COACH,ASSISTANT_COACH,CHIEFCONSULTANT,CAPTAIN)

CONSTRAINTS:

CONSTRAINTS:

1. Primary keys of each table is underlined.
2. TEAM_NAME of TEAM_STATUS is a foreign key which references TEAM_NAME of TEAM. TEAM_NAME of SUPPORT_STAFF is a foreign key which references TEAM_NAME of TEAM. TEAM_NAME of PLAYER is a foreign key which references TEAM_NAME of TEAM. PLAYER_ID of PLAYER_STATUS is a foreign key references PLAYER_ID of PLAYER.
3. NET_RUNRATE is not null in TEAM_STATUS table.
4. TEAM_OFFICIAL_WEBSITE is unique key in TEAM table.
5. PLAYER_ID in PLAYER table must start with 'DG-' or 'SH-' or 'CK-' or 'RR-' or 'BB-' or 'KRB-' or 'DR-'.
6. SALARY_IN_BDT in PLAYER table must be greater than 1000000
7. PLAYER_ROLE in PLAYER_STATUS table
in('BATSMAN','BOWLER','ALROUNDER','BATSMAN/WICKETKEEPER')
8. DIVISION in TEAM table in ('DHAKA','SHYLET','CHITTAGONG','RAJSHAHI','RANGPUR','BARISAL','KHULNA')
9. TEAM_BUDGET_IN_BDT in TEAM table must be greater than 70000000

10. TEAM_NAME in TEAM table must hold like '%DHAKA%' or '%SHYLET%' or '%CHITTAGONG%' or '%RAJSHAHI%' or '%RANGPUR%' or '%BARISAL%' or '%KHULNA%'

SQL DDL of all tables:

TEAM TABLE:

SQL:

```
CREATE TABLE "TEAM"
(
    "TEAM_NAME" VARCHAR2(20),
    "DIVISION" VARCHAR2(20),
    "OWNER" VARCHAR2(30),
    "TEAM_BUDGET_IN_BDT" NUMBER(20,0),
    "TEAM_OFFICIAL_WEBSITE" VARCHAR2(40),
    CONSTRAINT "TEAM_NAME_PK1" PRIMARY KEY ("TEAM_NAME") ENABLE,
    CONSTRAINT "TEAM_DIVISION_CHK1" CHECK ( "DIVISION"
IN('DHAKA','SHYLET','CHITTAGONG',' RAJSHAHI','RANGPUR','BARISAL','KHULNA'))
ENABLE,
    CONSTRAINT "TEAM_BUDGET_CHK2" CHECK
("TEAM_BUDGET_IN_BDT">70000000) ENABLE,
    CONSTRAINT "TEAM_NAME_CHK3" CHECK ( "TEAM_NAME" LIKE
'%DHAKA%' OR TEAM_NAME LIKE '%SHYLET%' OR TEAM_NAME LIKE
'%CHITTAGONG%' OR TEAM_NAME LIKE '%RAJSHAHI%' OR TEAM_NAME LIKE
'%RANGPUR%' OR TEAM_NAME LIKE '%BARISAL%'
OR TEAM_NAME LIKE '%KHULNA%' ) ENABLE,
    CONSTRAINT "TEAM_WEB_CHK4" UNIQUE ("TEAM_OFFICIAL_WEBSITE")
ENABLE
)
```

DDL:

insert into TEAM values ('DHAKA GLADIATORS','DHAKA','Europa Group',81900000,'http://www.dhakagladiators.com')

insert into TEAM values ('SHYLET ROYALS','SHYLET','Walton Group',82680000,'http://www.sylhetroyals.org')

insert into TEAM values ('CHITTAGONG KINGS','CHITTAGONG','SQ Sports',93600000,'http://www.ChittagongKings.com')

insert into TEAM values ('DURONTO RAJSHAHI','RAJSHAHI','Digital Auto Care',83460000,'http://www.duronto_rajshahi.org')

insert into TEAM values ('RANGPUR RIDERS','RANGPUR','Flora Telecom',78780000,'http://www.rangpur_riders.org')

insert into TEAM values ('BARISAL BURNERS','BARISAL','Alif Group Bangladesh',78780000,'http://www.barisalburners.com')

insert into TEAM values ('KHULNA ROYAL BENGALS','KHULNA','Orion Group',85800000,'http://www.khulnaroyalbengals.com')

TEAM_STATUS TABLE:

SQL:

```
CREATE TABLE "TEAM_STATUS"
(
    "TEAM_NAME" VARCHAR2(20),
    "MATCH" NUMBER(3,0),
    "WON" NUMBER(3,0),
    "LOST" NUMBER(3,0),
    "TIED" NUMBER(3,0),
    "NET_RUNRATE" VARCHAR2(20) NOT NULL ENABLE,
    "POINTS" NUMBER(5,0),
    "TEAM_RANK" NUMBER(3,0),
    CONSTRAINT "TEAM_STATUS_PK" PRIMARY KEY ("TEAM_NAME")
ENABLE,
    CONSTRAINT "TEAM_STATUS_NAME_FK" FOREIGN KEY ("TEAM_NAME")
REFERENCES "TEAM" ("TEAM_NAME") ON DELETE CASCADE ENABLE
)
```

DDL:

```
insert into TEAM_STATUS values ('DHAKA GLADIATORS',12,9,3,0,'+0.928',18,1)
insert into TEAM_STATUS values ('SHYLET ROYALS',12,9,3,0,'+0.0181',18,2)
insert into TEAM_STATUS values ('CHITTAGONG KINGS',12,6,6,0,'+1.170',12,3)
insert into TEAM_STATUS values ('DURONTO RAJSHAHI',12,5,7,0,'-0.557',10,4)
```

insert into TEAM_STATUS values ('RANGPUR RIDERS',12,5,7,0,-0.506',10,5)
insert into TEAM_STATUS values ('BARISAL BURNERS',12,5,7,0,-0.040',10,6)
insert into TEAM_STATUS values ('KHULNA ROYAL BENGALS',12,3,9,0,-1.060',10,7)

SUPPORT_STAFF TABLE:

SQL:

```
CREATE TABLE "SUPPORT_STAFF"  
(  
    "TEAM_NAME" VARCHAR2(20),  
    "HEAD_COACH" VARCHAR2(20),  
    "ASSISTANT_COACH" VARCHAR2(20),  
    "CHIEF_CONSULTANT" VARCHAR2(20),  
    "CAPTAIN" VARCHAR2(20),  
    CONSTRAINT "SUPPORT_STAFF_PK" PRIMARY KEY ("TEAM_NAME")  
ENABLE,  
    CONSTRAINT "SUPPORT_STAFF_FK1" FOREIGN KEY ("TEAM_NAME")  
    REFERENCES "TEAM" ("TEAM_NAME") ON DELETE CASCADE ENABLE  
)
```

DDL:

insert into SUPPORT_STAFF values ('DHAKA GLADIATORS','IAN PONT','MOHAMMAD RAFIQUE','HABIBUL BASHAR','MASHRAFE MORTAZA')

insert into SUPPORT_STAFF values ('SHYLET ROYALS','MOHAMMAD SALAHUDDIN','JASON SWIFT','NAIMUR RAHMAN','MUSHFIQUR RAHIM')

insert into SUPPORT_STAFF values ('CHITTAGONG KINGS','Michael Bevan','Dean Jones','Minhajul Abedin','Mahmudullah')

insert into SUPPORT_STAFF values ('DURONTO RAJSHAHI','Khaled Mashud','Hannan Sarkar','Athar Ali Khan','Simon Katich')

insert into SUPPORT_STAFF values ('RANGPUR RIDERS','Saqlain Mushtaq','Rafiqul Alam','Vaibhav Singh','Abdur Razzak')

insert into SUPPORT_STAFF values ('BARISAL BURNERS','Sarwar Imran','Khaled Mahmud','Akram Khan','Brad Hodge')

insert into SUPPORT_STAFF values ('KHULNA ROYAL BENGALS','Robin Singh','Zahid Razzak','Grant Luden','Shahriar Nafees')

PLAYER TABLE:

SQL:

```
CREATE TABLE "PLAYER"
(
    "PLAYER_ID" VARCHAR2(20),
    "PLAYER_NAME" VARCHAR2(20),
    "TEAM_NAME" VARCHAR2(20),
    "SALARY_IN_BDT" NUMBER(10,0),
    "DATE_OF_BIRTH" DATE,
    CONSTRAINT "PLAYER_PK" PRIMARY KEY ("PLAYER_ID") ENABLE,
    CONSTRAINT "PLAYER_ID_CHK1" CHECK ( "PLAYER_ID" LIKE 'DG-%' OR
PLAYER_ID LIKE 'SH-%' OR PLAYER_ID LIKE 'CK-%' OR PLAYER_ID LIKE 'RR-%' OR
PLAYER_ID LIKE 'BB-%' OR PLAYER_ID LIKE 'KRB-%' OR PLAYER_ID LIKE 'DR-%')
ENABLE,
    CONSTRAINT "PLAYER_SALARY_CHK2" CHECK
("SALARY_IN_BDT">1000000) ENABLE,
    CONSTRAINT "PLAYER_TEAM_NAME_FK" FOREIGN KEY ("TEAM_NAME")
REFERENCES "TEAM" ("TEAM_NAME") ON DELETE CASCADE ENABLE
)
```

DDL:

```
insert into PLAYER values ('DG-01','Shakib Al Hasan','DHAKA
GLADIATORS',28470000,'24-MAY-87')
```

```
insert into PLAYER values ('DG-11','MASHRAFE MORTAZA','DHAKA
GLADIATORS',10998000,'5-OCT-83')
```

```
insert into PLAYER values ('SH-98','MUSHFIQUR RAHIM','SHYLET ROYALS',15990000,'1-
SEP-88')
```

```
insert into PLAYER values ('SH-02','Sohag Gazi','SHYLET ROYALS',10998000,'5-AUG-91')
```

```
insert into PLAYER values ('CK-81','Mahmudullah','CHITTAGONG KINGS',9750000,'4-FEB-
86')
```

```
insert into PLAYER values ('CK-99','Dwayne Bravo','CHITTAGONG KINGS',8970000,'7-
OCT-83')
```

```
insert into PLAYER values ('RR-08','Nasir Hossain','RANGPUR RIDERS',9970000,'30-NOV-
91')
```

```
insert into PLAYER values ('RR-10','Abdur Razzak ','RANGPUR RIDERS',8220000,'15-JAN-
82')
```

insert into PLAYER values ('BB-01','Azhar Mahmood ','BARISAL BURNERS',16068000,'28-JULY-75')

insert into PLAYER values ('BB-13','Alok Kapali','BARISAL BURNERS',6774000,'1-DEC-81')

insert into PLAYER values ('KRB-09','Farhad Reza','KHULNA ROYAL BENGALS',4071390,'16-JAN-86')

insert into PLAYER values ('KRB-28','Shahadat Hossain','KHULNA ROYAL BENGALS',4071390,'7-AUG-86')

insert into PLAYER values ('DR-19','Ziaur Rahman','RANGPUR RIDERS',10686000,'2-DEC-85')

insert into PLAYER values ('DR-42','Tamim Iqbal','RANGPUR RIDERS',12870000,'20-MAR-89')

insert into PLAYER values ('DR-51','Marlon Samuels','RANGPUR RIDERS',8970000,'27-FEB-81')

PLAYER_STATUS TABLE:

SQL:

```
CREATE TABLE "PLAYER_STATUS"
(
    "PLAYER_ID" VARCHAR2(20),
    "PLAYER_ROLE" VARCHAR2(20),
    "TOTAL_MATCH" NUMBER(5,0),
    "TOTAL_RUN" NUMBER(5,0),
    "HALF_CENTURY" NUMBER(5,0),
    "CENTURY" NUMBER(5,0),
    "BEST_BATTING" NUMBER(5,0),
    "TOTAL_WICKETS" NUMBER(5,0),
    "BEST_BOWLING" VARCHAR2(20),
    CONSTRAINT "PLAYER_ID_PK" PRIMARY KEY ("PLAYER_ID") ENABLE,
    CONSTRAINT "PLAYER_STATUS_CHK1" CHECK ( "PLAYER_ROLE"
IN('BATSMAN','BOWLER','ALROUNDER','BATSMAN/WICKETKEEPER')) ENABLE,
    CONSTRAINT "PLAYER_ID_FK" FOREIGN KEY ("PLAYER_ID")
REFERENCES "PLAYER" ("PLAYER_ID") ON DELETE SET NULL ENABLE
)
```

DDL:

insert into PLAYER_STATUS values ('DG-01','ALROUNDER',11,422,2,1,101,15,5/25)

insert into PLAYER_STATUS values ('DG-11','BOWLER',12,78,0,0,21,14,3/8)

insert into PLAYER_STATUS values ('SH-98','BATSMAN/WICKETKEEPER',12,440,3,0,98,0,0)

insert into PLAYER_STATUS values ('SH-02','ALROUNDER',10,178,1,0,52,16,4-19)

insert into PLAYER_STATUS values ('CK-81','BATSMAN',12,242,2,0,74,6,2-29)

insert into PLAYER_STATUS values ('CK-99','BATSMAN',6,222,0,1,101,1,1-15)

insert into PLAYER_STATUS values ('RR-08','BATSMAN',11,193,1,0,60,2,1-7)

insert into PLAYER_STATUS values ('RR-10','BOWLER',10,52,0,0,21,13,3-27)

insert into PLAYER_STATUS values ('BB-13','ALROUNDER',5,125,1,0,51,6,2-42)

insert into PLAYER_STATUS values ('KRB-09','ALROUNDER',12,327,1,1,103,9,3-39)

insert into PLAYER_STATUS values ('KRB-28','BOWLER',9,27,0,0,13,12,3-18)

insert into PLAYER_STATUS values ('DR-19','ALROUNDER',6,174,1,0,61,4,2-48)

insert into PLAYER_STATUS values ('DR-42','BATSMAN',12,374,1,1,111,0,0)

insert into PLAYER_STATUS values ('DR-51','BATSMAN',2,134,0,1,102,1,1-25)

insert into PLAYER_STATUS values ('BB-01','ALROUNDER',0,0,0,0,0,0,0-0)

Snapshots of tables, populated datas and constraints of tables:

TEAM TABLE:

TEAM

Table

Data

Indexes

Model

Constraints

Grants

Statistics

UI Defaults

Triggers

Dependencies

SQL

Add Column

Modify Column

Rename Column

Drop Column

Rename

Copy

Drop

Truncate

Create Lookup Table

Column Name	Data Type	Nullable	Default	Primary Key
TEAM_NAME	VARCHAR2(20)	No	-	1
DIVISION	VARCHAR2(20)	Yes	-	-
OWNER	VARCHAR2(30)	Yes	-	-
TEAM_BUDGET_IN_BDT	NUMBER(20,0)	Yes	-	-
TEAM_OFFICIAL_WEBSITE	VARCHAR2(40)	Yes	-	-
1 - 5				

TEAM

TableDataIndexesModelConstraintsGrantsStatisticsUI DefaultsTriggersDependenciesSQL

QueryCount RowsInsert Row

EDIT	TEAM_NAME	DIVISION	OWNER	TEAM_BUDGET_IN_BDT	TEAM_OFFICIAL_WEBSITE
	CHITTAGONG KINGS	CHITTAGONG	SQ Sports	93600000	http://www.ChittagongKings.com
	DURONTO RAJSHAHI	RAJSHAHI	Digital Auto Care	83460000	http://www.duronto_rajshahi.org
	RANGPUR RIDERS	RANGPUR	Flora Telecom	78780000	http://www.rangpur_riders.org
	BARISAL BURNERS	BARISAL	Alif Group Bangladesh	78780000	http://www.barisalburners.com
	KHULNA ROYAL BENGALS	KHULNA	Orion Group	85800000	http://www.khulnaroyalbengals.com
	DHAKA GLADIATORS	DHAKA	Europa Group	81900000	http://www.dhakagladiators.com
	SHYLET ROYALS	SHYLET	Walton Group	82680000	http://www.sylhetroyals.org
row(s) 1 - 7 of 7					

TEAM										Create
Table	Data	Indexes	Model	Constraints	Grants	Statistics	UI Defaults	Triggers	Dependencies	SQL
Create	Drop	Enable	Disable							
Constraint	Type	Table	Search Condition			Delete Rule	Status	Last Change	Index	Invalid
TEAM_NAME_PK1	P	TEAM	-			-	ENABLED	09-DEC-13	TEAM_NAME_PK1	-
TEAM_WEB_CHK4	U	TEAM	-			-	ENABLED	12-DEC-13	TEAM_WEB_CHK4	-
TEAM_DIVISION_CHK1	C	TEAM	"DIVISION" IN('DHAKA','SHYLET','CHITTAGONG','RAJSHAH','RANGPUR','BARISAL','KHULNA')			-	ENABLED	09-DEC-13	-	-
TEAM_BUDGET_CHK2	C	TEAM	"TEAM_BUDGET_IN_BOT">70000000			-	ENABLED	09-DEC-13	-	-
TEAM_NAME_CHK3	C	TEAM	"TEAM_NAME" LIKE '%DHAKA%' OR TEAM_NAME LIKE '%SHYLET%' OR TEAM_NAME LIKE '%CHITTAGONG%' OR TEAM_NAME LIKE '%RAJSHAH%' OR TEAM_NAME LIKE '%RANGPUR%' OR TEAM_NAME LIKE '%BARISAL%' OR TEAM_NAME LIKE '%KHULNA%'			-	ENABLED	09-DEC-13	-	-

TEAM STATUS TABLE:

TEAM_STATUS

TableDataIndexesModelConstraintsGrantsStatisticsUI DefaultsTriggersDependenciesSQL

Add ColumnModify ColumnRename ColumnDrop ColumnRenameCopyDropTruncateCreate Lookup Table

Column Name	Data Type	Nullable	Default	Primary Key
TEAM_NAME	VARCHAR2(20)	No	-	1
MATCH	NUMBER(3,0)	Yes	-	-
WON	NUMBER(3,0)	Yes	-	-
LOST	NUMBER(3,0)	Yes	-	-
TIED	NUMBER(3,0)	Yes	-	-
NET_RUNRATE	VARCHAR2(20)	No	-	-
POINTS	NUMBER(5,0)	Yes	-	-
TEAM_RANK	NUMBER(3,0)	Yes	-	-
1 - 8				

[illegible]

TEAM_STATUS

TableDataIndexesModelConstraintsGrantsStatisticsUI DefaultsTriggersDependenciesSQL

CreateDropEnableDisable

Constraint	Type	Table	Search Condition	Delete Rule	Status	Last Change	Index	Invalid
TEAM_STATUS_PK	P	TEAM_STATUS	-	-	ENABLED	09-DEC-13	TEAM_STATUS_PK	-
TEAM_STATUS_NAME_FK	R	TEAM_STATUS	-	CASCADE	ENABLED	10-DEC-13	-	-
SYS_C004590	C	TEAM_STATUS	"NET_RUNRATE" IS NOT NULL	-	ENABLED	09-DEC-13	-	-

1 - 3

SUPPORT STAFF TABLE:








SUPPORT_STAFF

TableDataIndexesModelConstraintsGrantsStatisticsUI DefaultsTriggersDependenciesSQL

Add ColumnModify ColumnRename ColumnDrop ColumnRenameCopyDropTruncateCreate Lookup Table

Column Name	Data Type	Nullable	Default	Primary Key
TEAM_NAME	VARCHAR2(20)	No	-	1
HEAD_COACH	VARCHAR2(20)	Yes	-	-
ASSISTANT_COACH	VARCHAR2(20)	Yes	-	-
CHIEF_CONSULTANT	VARCHAR2(20)	Yes	-	-
CAPTAIN	VARCHAR2(20)	Yes	-	-

1 - 5

SUPPORT_STAFF					
Table	Data	Indexes	Model	Constraints	Grants
				Statistics	UI Defaults
				Triggers	Dependencies
				SQL	
<div> <div>Query</div> <div>Count Rows</div> <div>Insert Row</div> </div>					
EDIT	TEAM_NAME	HEAD_COACH	ASSISTANT_COACH	CHIEF_CONSULTANT	CAPTAIN
	DURONTO RAJSHAHI	Khaled Mashud	Hannan Sarkar	Athar Ali Khan	Simon Katich
	RANGPUR RIDERS	Saqlain Mushtaq	Rafiqul Alam	Vaibhav Singh	Abdur Razzak
	BARISAL BURNERS	Sarwar Imran	Khaled Mahmud	Akram Khan	Brad Hodge
	KHULNA ROYAL BENGALS	Robin Singh	Zahid Razzak	Grant Luden	Shahriar Nafees
	DHAKA GLADIATORS	IAN PONT	MOHAMMAD RAFIQUE	HABIBUL BASHAR	MASHRAFE MORTAZA
	SHYLET ROYALS	MOHAMMAD SALAHUDDIN	JASON SWIFT	NAIMUR RAHMAN	Sohag Gazi
	CHITTAGONG KINGS	Michael Bevan	Dean Jones	Minhajul Abedin	Mahmudullah
row(s) 1 - 7 of 7					

SUPPORT_STAFF

Table

Data

Indexes

Model

Constraints

Grants

Statistics

UI Defaults

Triggers

Dependencies

SQL

Create

Drop

Enable

Disable

Constraint	Type	Table	Search Condition	Delete Rule	Status	Last Change	Index	Invalid
SUPPORT_STAFF_PK	P	SUPPORT_STAFF	-	-	ENABLED	09-DEC-13	SUPPORT_STAFF_PK	-
SUPPORT_STAFF_FK1	R	SUPPORT_STAFF	-	CASCADE	ENABLED	10-DEC-13	-	-

1 - 2

PLAYER TABLE:

PLAYER					
Table	Data	Indexes	Model	Constraints	Grants Statistics UI Defaults Triggers Dependencies SQL
Add Column	Modify Column	Rename Column	Drop Column	Rename	Copy Drop Truncate Create Lookup Table
Column Name	Data Type	Nullable	Default	Primary Key	
PLAYER_ID	VARCHAR2(20)	No	-	1	
PLAYER_NAME	VARCHAR2(20)	Yes	-	-	
TEAM_NAME	VARCHAR2(20)	Yes	-	-	
SALARY_IN_BDT	NUMBER(10,0)	Yes	-	-	
DATE_OF_BIRTH	DATE	Yes	-	-	
1 - 5					

Query	Count Rows	Insert Row			
EDIT	PLAYER_ID	PLAYER_NAME	TEAM_NAME	SALARY_IN_BDT	DATE_OF_BIRTH
	DG-11	MASHRAFE MORTAZA	DHAKA GLADIATORS	10998000	05-OCT-83
	CK-81	Mahmudullah	CHITTAGONG KINGS	9750000	04-FEB-86
	CK-99	Dwayne Bravo	CHITTAGONG KINGS	8970000	07-OCT-83
	RR-08	Nasir Hossain	RANGPUR RIDERS	9970000	30-NOV-91
	RR-10	Abdur Razzak	RANGPUR RIDERS	8220000	15-JAN-82
	BB-01	Azhar Mahmood	BARISAL BURNERS	16068000	28-JUL-75
	BB-13	Alok Kapali	BARISAL BURNERS	6774000	01-DEC-81
	SH-02	Moris Udombe	SHYLET ROYALS	10998000	05-AUG-91
	DG-01	Shakib Al Hasan	DHAKA GLADIATORS	28470000	24-MAY-87
	SH-98	MUSHFIQUR RAHIM	SHYLET ROYALS	15990000	01-SEP-88
	KRB-09	Farhad Reza	KHULNA ROYAL BENGALS	4071390	16-JAN-86
	KRB-28	Shahadat Hossain	KHULNA ROYAL BENGALS	4071390	07-AUG-86
	DR-19	Ziaur Rahman	DURONTO RAJSHAHI	10686000	02-DEC-85
	DR-42	Tamim Iqbal	DURONTO RAJSHAHI	12870000	20-MAR-89
	DR-51	Marlon Samuels	DURONTO RAJSHAHI	8970000	27-FEB-81
row(s) 1 - 15 of 15					

PLAYER_STATUS										Create ▼
Table Data Indexes Model Constraints Grants Statistics UI Defaults Triggers Dependencies SQL										
Create	Drop	Enable	Disable							
Constraint	Type	Table	Search Condition	Delete Rule	Status	Last Change	Index	Invalid		
PLAYER_ID_PK	P	PLAYER_STATUS	-	-	ENABLED	09-DEC-13	PLAYER_ID_PK	-		
PLAYER_ID_FK	R	PLAYER_STATUS	-	SET NULL	ENABLED	09-DEC-13	-	-		
PLAYER_STATUS_CHK1	C	PLAYER_STATUS	"PLAYER_ROLE" IN ('BATSMAN','BOWLER','ALROUNDER','BATSMANWICKETKEEPER')	-	ENABLED	09-DEC-13	-	-		
										1 - 3

Conclusion:

I have tried hard to make the database management system as a perfect model for the present time. I have tried to add the different things in the project. While doing the assignment I have faced some problems such as designing schema, primary key, constraints etc. With the help of our respective course teachers I have solved it in the lab class. I have collected many informations from the internet such as salary, date of birth of the player of a team, BPI points list etc. I have learnt well and got enjoyment to make this database system management. The database system will be an inspiration for me to do better performance in Database management system in future.

1. FIND THE CAPTAIN_ROLE IN THE MATCH IN BPL TOURNAMENT.

RA:

Temp1 \leftarrow $\Pi_{\text{captain,player_id}}(\sigma_{\text{player_name} = \text{captain}}(\text{SUPPORT_STAFF} \bowtie \text{PLAYER}))$

result \leftarrow $\Pi_{\text{captain_role}}(\text{Temp1} \bowtie \text{player_status})$

SQL:

SELECT CAPTAIN,PLAYER_ROLE FROM PLAYER_STATUS NATURAL JOIN

(SELECT CAPTAIN,PLAYER_ID FROM SUPPORT_STAFF NATURAL JOIN PLAYER
WHERE PLAYER_NAME=CAPTAIN)

SNAPSHOTS OF SQL OUTPUT:

Results

Explain

Describe

Saved SQL

History

CAPTAIN	PLAYER_ROLE
Mahmudullah	BATSMAN
MASHRAFE MORTAZA	BOWLER

2 rows returned in 0.06 seconds

[CSV Export](#)

Application Express 2.1.0.00.39

2.FIND THE PLAYER_NAME WHO ARE ALROUNDER.

RA:

result←Π player_name (σ PLAYER.PLAYER_ID=PLAYER_STATUS.PLAYER_ID ∧
PLAYER_ROLE='ALROUNDER'(PLAYER × PLAYER_STATUS))

SQL:

SELECT DISTINCT PLAYER_NAME

FROM PLAYER,PLAYER_STATUS

WHERE PLAYER.PLAYER_ID=PLAYER_STATUS.PLAYER_ID AND
PLAYER_ROLE='ALROUNDER'

SNAPSHOTS OF SQL OUTPUT:

Results Explain Describe Saved SQL History

PLAYER_NAME
Azhar Mahmood
Farhad Reza
Alok Kapali
Shakib Al Hasan
Moris Udombe
Ziaur Rahman

6 rows returned in 0.00 seconds

[CSV Export](#)

Language: en-us

3. Give all player's statistics participating in matches. Also give those player's information who does not run, does not take a wicket in the tournament.

RA:

result ← Π player_id, player_name, team_name, salary_in_bdt, player_id, player_role, total_match, total_run, half_century, century, best_batting, total_wickets, best_bowling (σ player.player_id=player_status.player_id (player ⋈ player_status))

SQL:

SELECT *

FROM PLAYER LEFT OUTER JOIN PLAYER_STATUS ON
PLAYER.PLAYER_ID=PLAYER_STATUS.PLAYER_ID

SNAPSHOTS OF SQL OUTPUT:

Results	Explain	Describe	Saved SQL	History										
PLAYER_ID	PLAYER_NAME	TEAM_NAME	SALARY_IN_BDT	DATE_OF_BIRTH	PLAYER_ID	PLAYER_ROLE	TOTAL_MATCH	TOTAL_RUN	HALF_CENTURY	CENTURY	BEST_BATTING	TOTAL_WICKETS	BEST_BOWLING	
SH-98	MUSHTAQUE RAHIM	SHYLET ROYALS	15990000	01-SEP-88	SH-98	BATSMAN/WICKETKEEPER	12	540	3	1	118	0	0	
BB-01	Azhar Mahmood	BARISAL BURNERS	16068000	28-JUL-75	BB-01	ALROUNDER	10	175	1	0	52	16	4-19	
DG-01	Shakib Al Hasan	DHAKA GLADIATORS	28470000	24-MAY-87	DG-01	ALROUNDER	11	422	2	1	101	15	5-10	
CK-81	Mahmudullah	CHITTAGONG KINGS	9750000	04-FEB-86	CK-81	BATSMAN	12	242	2	0	74	6	2-7	
CK-89	Dwayne Bravo	CHITTAGONG KINGS	8970000	07-OCT-83	CK-89	BATSMAN	6	222	0	1	101	1	1-4	
RR-08	Nasir Hossain	RANGPUR RIDERS	9970000	30-NOV-91	RR-08	BATSMAN	11	193	1	0	60	2	1-6	
RR-10	Abdur Razzak	RANGPUR RIDERS	8220000	15-JAN-82	RR-10	BOWLER	10	52	0	0	21	13	3-27	
BB-13	Alok Kapali	BARISAL BURNERS	6774000	01-DEC-81	BB-13	ALROUNDER	5	125	1	0	51	6	2-42	
KRB-09	Farhad Reza	KHULNA ROYAL BENGALS	4071390	16-JAN-86	KRB-09	ALROUNDER	12	327	1	1	103	9	3-39	
KRB-28	Shahadat Hossain	KHULNA ROYAL BENGALS	4071390	07-AUG-86	KRB-28	BOWLER	9	27	0	0	13	12	3-18	
DR-19	Ziaur Rahman	DURONTO RAJSHAHI	10688000	02-DEC-85	DR-19	ALROUNDER	6	174	1	0	61	4	2-48	
DR-42	Tamim Iqbal	DURONTO RAJSHAHI	12870000	20-MAR-88	DR-42	BATSMAN	12	374	1	1	111	0	0	
DR-51	Marlon Samuels	DURONTO RAJSHAHI	8970000	27-FEB-81	DR-51	BATSMAN	2	134	0	1	102	1	1-25	
DG-11	MASHRAFE MORTAZA	DHAKA GLADIATORS	10988000	05-OCT-83	DG-11	BOWLER	12	78	0	0	21	14	3-6	
SH-02	Moris Udombé	SHYLET ROYALS	10988000	05-AUG-91	SH-02	ALROUNDER	1	0	0	0	0	0	0	
15 rows returned in 0.00 seconds				CSV Export										

16 rows returned in 0.00 seconds [CSV Export](#)

4.FIND TEAM_NAME ALONG DIVISION AND TEAM_RANK

RA:

result← Π TEAM_NAME,DIVISION,TEAM_RANK (σ TEAM.TEAM_NAME = TEAM_STATUS.TEAM_NAME (TEAM \times TEAM_STATUS))

SQL:

```
SELECT TEAM_NAME,DIVISION,TEAM_RANK
FROM TEAM JOIN TEAM_STATUS USING(TEAM_NAME)
```

SNAPSHOTS OF SQL OUTPUT:

Results Explain Describe Saved SQL History

TEAM_NAME	DIVISION	TEAM_RANK
CHITTAGONG KINGS	CHITTAGONG	3
DURONTO RAJSHAHI	RAJSHAHI	4
RANGPUR RIDERS	RANGPUR	5
BARISAL BURNERS	BARISAL	6
KHULNA ROYAL BENGALS	KHULNA	7
DHAKA GLADIATORS	DHAKA	1
SHYLET ROYALS	SHYLET	2

7 rows returned in 0.01 seconds

[CSV Export](#)

Results	Explain	Describe	Saved SQL	History					
<table> <tr> <th>PLAYER_NAME</th></tr> <tr> <td>Shakib Al Hasan</td></tr> <tr> <td>Azhar Mahmood</td></tr> <tr> <td>MUSHFIQUR RAHIM</td></tr> <tr> <td>Tamim Iqbal</td></tr> </table>					PLAYER_NAME	Shakib Al Hasan	Azhar Mahmood	MUSHFIQUR RAHIM	Tamim Iqbal
PLAYER_NAME									
Shakib Al Hasan									
Azhar Mahmood									
MUSHFIQUR RAHIM									
Tamim Iqbal									
4 rows returned in 0.00 seconds				CSV Export					

6. FIND PLAYER'S NAME WHO EARN MORE THAN OF ALL PALYER OF SHYLET ROYALS

RA:

Temp1 \leftarrow G_{MAX AS MX} (Π SALARY_IN_BDT (σ TEAM_NAME='SHYLET ROYALS' (PLAYER)))

RESULT \leftarrow Π player_name (σ SALARY_IN_BDT >_{MX} (PLAYER \times Temp1))

SQL:

SELECT PLAYER_NAME FROM PLAYER

WHERE SALARY_IN_BDT > ALL (SELECT SALARY_IN_BDT FROM PLAYER WHERE TEAM_NAME='SHYLET ROYALS')

SNAPSHOTS OF SQL OUTPUT:

Results	Explain	Describe	Saved SQL
---------	---------	----------	-----------

PLAYER_NAME
Azhar Mahmood
Shakib Al Hasan

2 rows returned in 0.00 seconds [CS](#)

7.FIND THE TEAM_NAME IN THE BPL TOURNAMENT ACCORDING TO POINT_LIST(FROM HIGHEST TO LOWEST)

RA:

result←Π TEAM_NAME, POINTS (TEAM ⋈ TEAM_STATUS)

SQL:

SELECT TEAM_NAME,POINTS

FROM TEAM NATURAL JOIN TEAM_STATUS

ORDER BY POINTS DESC

SNAPSHOTS OF SQL OUTPUT:

Results Explain Describe Saved SQL Hist	
TEAM_NAME	POINTS
DHAKA GLADIATORS	18
SHYLET ROYALS	18
CHITTAGONG KINGS	12
DURONTO RAJSHAHI	10
RANGPUR RIDERS	10
BARISAL BURNERS	10
KHULNA ROYAL BENGALS	10

7 rows returned in 0.01 seconds [CSV Export](#)

[illegible]

[illegible]

10. FIND THE TEAM_NAME WHERE TEAM_RANK 1 AND ANY PLAYER OF THAT TEAM MUST HAVE TOTAL_WICKETS GREATER THAN 10 IN BPL TOURNAMENT

RA:

TEMP1 ← Π player_ID(σ TOTAL_WICKETS > 10 (PLAYER_STATUS))

TEMP2 ← Π T. TEAM_NAME (pt(PLAYER) \times TEMP1)

RESULT ← Π TEAM_NAME (σ T. TEAM_NAME = TEAM_STATUS.TEAM_NAME \wedge TEAM_RANK = 1 (TEMP2 \times TEAM_STATUS))

SQL:

WITH TEMP1 AS (SELECT PLAYER_ID FROM PLAYER_STATUS WHERE TOTAL_WICKETS >= 10),

TEMP2 AS (SELECT TEAM_NAME T FROM PLAYER NATURAL JOIN TEMP1)

SELECT DISTINCT TEAM_NAME FROM TEMP2, TEAM_STATUS WHERE T = TEAM_NAME AND TEAM_RANK = 1

SNAPSHOTS OF SQL OUTPUT:

Results	Explain	Describe	Saved SQL	History
TEAM_NAME				
DHAKA GLADIATORS				
1 rows returned in 0.02 seconds CSV Export				

11. FIND THE TEAM_NAME ALONG WITH TEAM HEAD_COACH NAME WHERE TEAM_NAME STARTS WITH 'DURONTO'.

RA:

RESULT $\leftarrow \Pi$ TEAM_NAME, HEAD_COACH (σ TEAM_NAME
LIKE ("DURONTO%")) (SUPPORT_STAFF)

SQL:

```
SELECT TEAM_NAME, HEAD_COACH  
FROM SUPPORT_STAFF  
WHERE TEAM_NAME LIKE 'DURONTO%'
```

SNAPSHOTS OF SQL OUTPUT:

Results	Explain	Describe	Saved SQL	Histo
TEAM_NAME	HEAD_COACH			
DURONTO RAJSHAHI	Khaled Mashud			
1 rows returned in 0.00 seconds				
CSV Export				

Results Explain Describe Saved SQL History

PLAYER_NAME	PLAYER_ID
Alok Kapali	BB-13
Azhar Mahmood	BB-01
Dwayne Bravo	CK-99
Farhad Reza	KRB-09
MUSHFIQUR RAHIM	SH-98
Mahmudullah	CK-81
Marlon Samuels	DR-51
Nasir Hossain	RR-08
Shakib Al Hasan	DG-01
Tamim Iqbal	DR-42
Ziaur Rahman	DR-19

11 rows returned in 0.00 seconds

[CSV Export](#)

13. FIND PLAYER'S NAME WHO HAS HALF_CENTURIES AND CENTURY IN BPL TOURNAMENT

RA:
$$\text{RESULT} \leftarrow \Pi \text{ PLAYER_NAME}(\sigma \text{ HALF_CENTURY} \geq 1(\text{PLAYER_STATUS} \bowtie \text{PLAYER})) \\ \cap \Pi \text{ PLAYER_NAME}(\sigma \text{ CENTURY} \geq 1(\text{PLAYER_STATUS} \bowtie \text{PLAYER}))$$

SQL:

```
SELECT PLAYER_NAME,PLAYER_ID FROM PLAYER_STATUS NATURAL JOIN
PLAYER WHERE HALF_CENTURY>=1
```

INTERSECT

```
SELECT PLAYER_NAME,PLAYER_ID FROM PLAYER_STATUS NATURAL JOIN
PLAYER WHERE CENTURY>=1
```

SNAPSHOTS OF SQL OUTPUT:

Results	Explain	Describe	Saved SQL	History										
<table> <tr> <th>PLAYER_NAME</th><th>PLAYER_ID</th></tr> <tr> <td>Farhad Reza</td><td>KRB-09</td></tr> <tr> <td>MUSHFIQUR RAHIM</td><td>SH-98</td></tr> <tr> <td>Shakib Al Hasan</td><td>DG-01</td></tr> <tr> <td>Tamim Iqbal</td><td>DR-42</td></tr> </table>					PLAYER_NAME	PLAYER_ID	Farhad Reza	KRB-09	MUSHFIQUR RAHIM	SH-98	Shakib Al Hasan	DG-01	Tamim Iqbal	DR-42
PLAYER_NAME	PLAYER_ID													
Farhad Reza	KRB-09													
MUSHFIQUR RAHIM	SH-98													
Shakib Al Hasan	DG-01													
Tamim Iqbal	DR-42													
4 rows returned in 0.00 seconds CSV Export														

Results Explain Describe Saved SQL History

PLAYER_NAME	PLAYER_ID
Alok Kapali	BB-13
Azhar Mahmood	BB-01
Mahmudullah	CK-81
Nasir Hossain	RR-08
Ziaur Rahman	DR-19

5 rows returned in 0.00 seconds

[CSV Export](#)

15.INCREASE SALARY OF PLAYERS 5 PERCENT RISE OF THAT TEAM WHOSE TEAM_RANK IS 1

RA:

TEMP1← Π TEAM_NAME (σ TEAM_RANK =1(Team_Status))

TEMP2← Π PLAYER_ID, PLAYER_NAME, TEAM_NAME,
SALARY_IN_BDT,DATE_OF_BIRTH(TEMP1 \times PLAYER)

PLAYER← Π PLAYER_ID, PLAYER_NAME, TEAM_NAME,
SALARY_IN_BDT*1.05,DATE_OF_BIRTH(TEMP2) \cup (PLAYER- TEMP2)

SQL:

UPDATE PLAYER

SET SALARY_IN_BDT=SALARY_IN_BDT*1.05

WHERE TEAM_NAME IN (SELECT TEAM_NAME FROM TEAM_Status WHERE
TEAM_RANK=1)

SNAPSHOTS OF SQL OUTPUT:

Results	Explain	Describe	Saved SQ
2 row(s) updated.			
0.22 seconds			

16.DELETE ALL RECORDS FROM SUPPORT_STAFF WHOSE TEAM_RANK IS 3

RA:

TEMP1← Π TEAM_NAME (σ TEAM_RANK =₃(TEAM_STATUS))

TEMP2← Π TEAM_NAME, HEAD_COACH, ASSISTANT_COACH,
CHIEF_CONSULTANT,CAPTAIN(**TEMP1**×**SUPPORT_STAFF**)

SUPPORT_STAFF← **SUPPORT_STAFF** - **TEMP2**

SQL:

DELETE FROM SUPPORT_STAFF

WHERE TEAM_NAME IN(SELECT TEAM_NAME FROM TEAM_STATUS

WHERE TEAM_RANK=3)

SNAPSHOTS OF SQL OUTPUT:

Results	Explain	Describe	S
1 row(s) deleted.			
0.00 seconds			