Sister Nivedita University
Department of Computer Science and Engineering
DATABASE MANAGEMENT SYSTEM LAB
ASSIGNMENT 7

1. Create the following tables with appropriate constraints using SQL command.
(a) Match

SLNO	Match_Id	Team1	Team2	Ground	Play_Date	Winner

(b) Player

SLNO	Player_Id	Lname	Fname	Country	Yborn	Bplace	Ftest

(c) Bowling

SLNO	Match_Id	Player_Id	Novers	Maidens	Nrun_rcv	Nwickets

(d) Batting

SLNO	Match_Id	Player_Id	Nrun_sc

2. Add the following constraints
   - ☐ BOWLING(Match_Id) references MATCH(Match_Id)
   - ☐ BOWLING (Player_Id) references PLAYER(Player_Id)
   - ☐ BATTING(Match_Id) references MATCH(Match_Id)
   - ☐ BATTING (Player_Id) references PLAYER(Player_Id)
   - ☐ Match (SLNO), Player (SLNO), Bowling (SLNO), Batting (SLNO): Auto Increment.
   - ➢ **NOTE:-**

   For Auto Increment you have to create sequence.

SQL QUERY FOR CREATING SEQUENCE:-

CREATE SEQUENCE <sequence_name>
 MINVALUE <value>
 MAXVALUE <value>
 START WITH <value>
 INCREMENT BY <value>
 CACHE <value>;

- **MINVALUE:** Specify the minimum value of the sequence.
- **MAXVALUE:** Specify the maximum value of the sequence.
- **START WITH:** Specify the first sequence number to be generated.
- **INCREMENT BY:** Specify the interval between sequence numbers. This integer value can be any positive or negative integer, but it cannot be 0.
- **CACHE:** Specify how many values of the sequence the database pre allocates and keeps in memory for faster access. It is only used for speed up the operation.

- **CYCLE:** Specify CYCLE to indicate that the sequence continues to generate values after reaching either its maximum or minimum value. After an ascending sequence reaches its maximum value, it generates its minimum value. After a descending sequence reaches its minimum, it generates its maximum value.
- **NOCYCLE:** Specify NOCYCLE to indicate that the sequence cannot generate more values after reaching its maximum or minimum value. This is the default.
- **NOMINVALUE:** Specify NOMINVALUE to indicate a minimum value of 1 for an ascending sequence or -10^{26} for a descending sequence. This is the default.
- **NOMAXVALUE:** Specify NOMAXVALUE to indicate a maximum value of 10^{27} for an ascending sequence or -1 for a descending sequence. This is the default.

EXAMPLE OF CREATING SEQUENCE:-

```
CREATE SEQUENCE seq1
   START WITH 1
   INCREMENT BY 1
NOMAXVALUE
  NOCYCLE
  CACHE 20;
```

EXAMPLE OF INSERTING VALUES USING SEQUENCE:-

INSERT INTO <TABLENAME> VALUES (<SEQUENCE NAME>.NEXTVAL, OTHER PARAMETERS);
EXAMPLE:-

INSERT INTO <TABLENAME> VALUES (seq1.NEXTVAL, OTHER PARAMETERS);

3. Insert the following data
   (a) Data for Match table

SLNO	Match_Id	Team1	Team2	Ground	Play_Date	Winner
1	2475	Austrilia	India	Melbourn	10-FEB-08	Team2
2	2576	India	Srilanka	Adeliaide	19-FEB-08	Team1
3	2677	Austrilia	India	Sydney	02-MAR-08	Team1
4	2778	Austrilia	Srilanka	Brisbane	04-MAR-08	Team2
5	2879	Srilanka	India	Colombo	27-AUG-08	Team2

   (a) Data for Bowling table

SLNO	Match_Id	Player_Id	Novers	Maidens	Nrun_rcv	Nwickets
1000	2576	59001	8	3	58	1
1002	2677	69001	10	1	27	3
1004	2879	49002	7	0	44	0

1006	2576	49001	3	2	15	1
1008	2778	59001	7	1	20	5

(b) Data for Batting table

SLNO	Match_Id	Player_Id	Nrun_sc
501	2677	49001	60
502	2778	59002	71
503	2879	59001	60
504	2778	69002	17
505	2879	59002	45
506	2576	49001	36
507	2475	49002	72

(c) Data for Player table

SLNO	Player_Id	Lname	Fname	Country	Yborn	Bplace	Ftest
100	49001	Tendulkar	Sachin	India	1973	Mumbai	1986
90	49002	Dravid	Rahul	India	1973	Indore	1996
80	59001	Vass	Chaminda	Srilanka	1974	Mattumagala	1994
70	59002	Jayasuriya	Sanath	Srilanka	1969	Matara	1991
60	69001	Lee	Brett	Austrilia	1976	Wollongong	1999
50	69002	Symonds	Andrew	Austrilia	1975	Birminghum	2004

4.
 a) Find the ground of the matches batted by player whose Fname is starting from 'S'.
 b) Find Id's of player that have bowled in the match 2576 but not have batted.
 c) Find the batting average of each Indian player along with the Player_Id
 d) Find the name of that player who has bowled highest number of overs and also find the ground where he has bowled.

5.
 a) Find the total run scored by a player who played First Test in 1991.
 b) Find the name and the number of wickets taken by the youngest player in the data base.
 c) Find the names of the players who batted in only one match.
 d) Find the name of the player who has taken the highest wickets in a particular match and also find the ground where the player has taken the wickets.

6.
 a) Find the ground where Sachin Tendulkar has scored his highest run.
 b) Find out the name of a Srilankan bowler who has delivered at least 2 maiden overs.
 c) Find the Number of wickets of that player whose Birth place in Mattumagala.
 d) Find the names of the players who played in more than one matches.