

Assignment 1

DBMS Lab

8th Jan 2015

1. We want to design a database for storing the information of Indian athletes and their participations in Olympic games.
 - 1.1 An athlete has his/her ID, the name, and the birth date.
 - 1.2 Each Olympiad has the year, the country, and the city.
For example, the 2008 Olympic game was held in Beijing, China.
 - 1.3 An athlete can participate in several sports in an Olympiad.
 - 1.4 Every athlete in our database participated in at least one Olympiad. Every Olympiad has at least one athlete.

CREATE TABLE Syntax..

```
CREATE TABLE <TABLE identifier> (  
    COL1  DATATYPE1,  
    COL2  DATATYPE2,  
    COL3  DATATYPE3,  
    ...);
```

Adding constraints..

```
ALTER TABLE <TABLE identifier>
  ADD [ CONSTRAINT <CONSTRAINT identifier> ]
  PRIMARY KEY ( <COLUMN expression> ),
  ADD [ CONSTRAINT <CONSTRAINT identifier> ]
  FOREIGN KEY ( <COLUMN expression> )
  REFERENCES <TABLE identifier> [ ( <COLUMN
    expression> {, <COLUMN expression>}...
  ) ]
  [ ON UPDATE <referential action> ]
  [ ON DELETE <referential action> ]
```

INSERT values..

```
INSERT INTO <TABLE identifier>
    (column1,column2,column3,...)
VALUES (value1,value2,value3,...);
```

2. Schema description

movies (mid, title, year, num_ratings, rating)

play_in (mid, name, cast_position)

- 2.1 Return the total number of active actors in the dataset (done a movie after 2005)
- 2.2 Return all the actors who have done at least one movie with Rani Mukherjee (in alphabetic order of their names)
- 2.3 Rate the actors according to the gross ratings their movies received. A tie is resolved alphabetically. For example, if Amir Khan worked in five movies with rating 7, 4, 10, 16 and 9, then his gross rating is 36. Output the actors based on the decreasing order of ratings.
- 2.4 Find the actor who has acted in more movies in 2005 than in any other year in his career.
- 2.5 Find the actors whose three consecutive movies have got the same rating. Hence find the actor(s) whose movies have received the same rating maximum number of times.

3. Schema description

aircraft (aid, aname, year, cruisingrange)

pilot (pid, pname, salary)

certified (aid, pid)

- 3.1 Find the names of aircraft such that all pilots certified to operate them earn more than 20 lacs
- 3.2 For all aircraft with cruisingrange over 15000 km, find the name of the aircraft and the average salary of all pilots certified for this aircraft.
- 3.3 Print the enames of pilots who can operate planes with cruisingrange greater than 15000 km but are not certified on any Boeing aircraft.