22/12/21

DBMS (2CSE301)

(BDA)

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Date
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~~Tables: student~~

~~roll name program marks~~

Q5 (i) select movie-name from movies m
join genres g on m.Genre-Id = g.Genre-Id
where g.Genre = "Comedy";

(ii) select AVG(collection) from movies m
join genres g on m.Genre-Id = g.Genre-Id
where g.Genre = "Action";

(iii) select MAX(collection) from movies m
join genres g on m.Genre-Id = g.Genre-Id
GROUP BY g.Genre;

(iv) select g.Genre, count(*) from movies m
join genres g on m.Genre-Id = g.Genre-Id
GROUP BY g.Genre;

(v) select m.movie-name, g.genre from
movies m join genres g
ON m.genre-Id = g.Genre-Id GROUP BY
g.Genre HAVING G.Genre LIKE "%a%";

(vi) select count(*) FROM movies where
YEAR(release-date) = (select YEAR(release-
date) from movies where movie-name =
"Spiderman");

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Q4

```
(a) DELIMITER //

CREATE TRIGGER Ques4a AFTER UPDATE ON
account FOR EACH ROW
 BEGIN
INSERT INTO account_log VALUES (new.acno,
  new.difference_in_balance, GETDATE());
END;
//

(b) CREATE PROCEDURE Ques4b
  @branchname VARCHAR(20)
  BEGIN
  SELECT COUNT (*) FROM account A join
     branch B on A.branch_Id = B.branch_Id
   WHERE B.branch_name = @branchname;
  END

call Ques4b @branchname = "Ahmedabad";

(c) CREATE VIEW `Ques4c` AS
  SELECT name, balance, branch_name,
    open_date FROM account WHERE
    open_date = (SELECT open_date FROM
    account WHERE name = "Raj");

SELECT * FROM `Ques4C`;
```

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(1) student

sid	name	program

course - offerings

secno	time	room	course no	semester	year

exam

eid	name	place	time

takes

sid	sec no	eid	marks

student (sid , name, program)
course - offerings (secno , time, room, course no , semester, year)
exam (eid , name, place, time)
takes (sid , secno, eid , marks).

(2) Lossless join decomposition is a method of decomposition in which a relation R can be decomposed into relations r1 & r2, and it will return R after performing natural join on r1 and r2. This type of decomposition is called ~~lossel~~ lossless decomposition. It is used to reduce redundancy in

relation.

For Eg:- Consider R (A; B, C)

let r1 (A, B) and r2 (B, C)
after performing lossless decomposition.

Now when we perform natural join on r1 and r2 we get,

$r1 \bowtie r2 \Rightarrow R(A, B, C)$

∴ On performing natural join we get R.
This is example of Loseless decomposition.

(3) A schedule is called conflict serializable when the schedule can be converted into a serial schedule by interchanging non-conflicting operations.

Two operations to be conflict serialable, this conditions are as follows :-

↳ They belong to different transactions.
↳ It is operated on same data item.
↳ there is atleast one write operation.

Now, given serial,

$S: R_1(X)\ R_2(X)\ R_2(Y)\ W_2(Y)\ R_1(Y)\ W_1(X)$

In this serial, the condition mentioned

are satisfied as there is conflict in operation of X ; $R_1(X)$ & $W_1(X)$ ∴

∴ The given serial would be conflict serializable.

——→ X, ——— X ——— X, ———