Amrita School of Engineering, Amritapuri Campus.

19CSE101: Computer Systems Essentials

LAB SHEET 3-RDBMS

PostgreSql – Query familiarization

(Update and Delete)

- 1. Consider the following schema and write the queries for the following. Events(Event_id, Event_name, Event_type,Allowed_Participants, Venue) Registration(Chess_no, Event_id, Stud_dept, Score)
 - a. Create tables Events and Registration. Refer to the tables below and determine the appropriate data types for the attributes.

```
/*1.a*/
create table Events(Event_id int primary key,

Event_name varchar(20),
Event_type varchar(10),
Allowed_participants int,
Venue varchar(10));
```

Data Output Explain Messages Notifications

CREATE TABLE

Query returned successfully in 151 msec.



```
create table Registration(Chess_no varchar(5) primary key,
 7
 8
                                 Event_id int,
                                 Student_dept varchar(3),
 9
                                 score int);
10
11
12
Data Output
            Explain
                     Messages
                                Notifications
CREATE TABLE
Query returned successfully in 255 msec.
```

```
Data Output Explain Messages Notifications

chess_no
[PK] character varying (5)

event_id integer character varying (3)

score integer integer
```

b. Insert the following tuples into the relation Events.

Event_id	Event_name	Event_type	Allowed_Par ticipants	Venue
1	Group Song	Group	10	Stage1
2	Group dance	Group	10	Stage2
3	Elocution	Individual	25	Stage1
4	Classical Dance	Individual	20	Stage3
5	Mime	Group	10	Stage2
6	Fancy Dress	Individual	50	Stage1

```
12
    insert into Events
    values (1,'Group Song','Group',10,'Stage1'),
13
            (2,'Group dance','Group',10,'Stage2'),
14
            (3, 'Elocution', 'Individual', 25, 'Stage1'),
15
            (4, 'Classical Dance', 'Individual', 20, 'Stage3'),
16
            (5, 'Mine', 'Group', 10, 'Stage2'),
17
            (6, 'Fancy Dress', 'Individual', 50, 'Stage1');
18
                                Notifications
Data Output
            Explain
                     Messages
INSERT 0 6
Query returned successfully in 281 msec.
```

19 select * from events;

Dat	Data Output Explain Messages Notifications						
4	event_id [PK] integer	event_name character varying (20)	event_type character varying (10)	allowed_participants integer	venue character varying (10)		
1	1	Group Song	Group	10	Stage1		
2	2	Group dance	Group	10	Stage2		
3	3	Elocution	Individual	25	Stage1		
4	4	Classical Dance	Individual	20	Stage3		
5	5	Mine	Group	10	Stage2		
6	6	Fancy Dress	Individual	50	Stage1		

c. Insert the following tuples into the relation Registration.

Chess_no	Event_id	Student_dept	Score
GS1	1	CSE	10
GS2	1	ECE	8
GS3	1	CSE	7
GD1	2	EEE	9
GD2	2	CSE	8
E1	3	ME	10
E2	3	EEE	8
CD1	4	CSE	10
CD2	4	EEE	8
CD3	4	CSE	8
M1	5	CSE	9
M2	5	ME	7
M3	5	ECE	8
FD1	6	ME	9
FD2	6	CSE	8
FD3	6	EEE	7
FD4	6	CSE	8

Notifications

INSERT 0 17

Data Output Explain

Messages

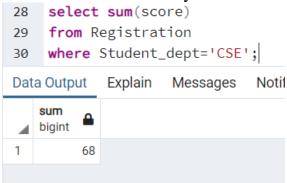
27 **select** * **from** Registration;

Data Output Explain Messages Notifications

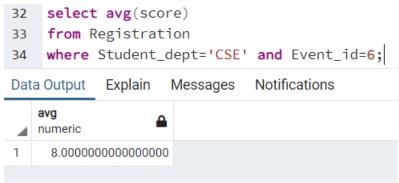
4	chess_no [PK] character varying (5)	event_id integer	student_dept character varying (3)	score integer
1	GS1	1	CSE	10
2	GS2	1	ECE	8
3	GS3	1	CSE	7
4	GD1	2	EEE	9
5	GD2	2	CSE	8
6	E1	3	ME	10
7	E2	3	EEE	8
8	CD1	4	CSE	10
9	CD2	4	EEE	8
10	CD3	4	CSE	8
11	M1	5	CSE	9
12	M2	5	ME	7
13	M3	5	ECE	8
14	FD1	6	ME	9
15	FD2	6	CSE	8
16	FD3	6	EEE	7
17	FD4	6	CSE	8

d. Retrieve the following information:

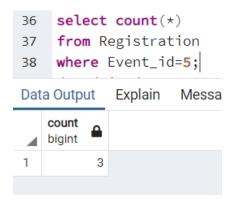
i. Sum of Score obtained by the students in CSE department.



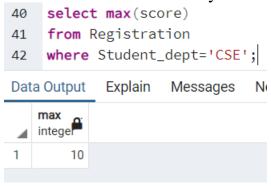
ii. Average score obtained by the students of CSE department for the event with event id 6.



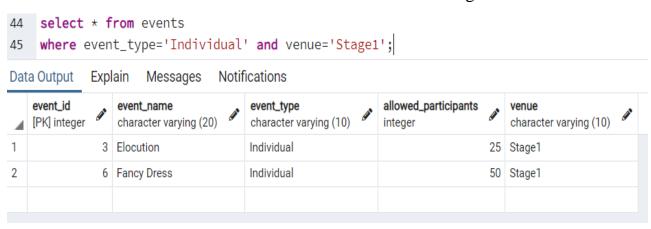
iii. Number of teams participated for the event with id 5.



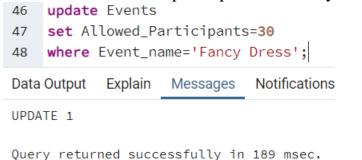
iv. Maximum score obtained by students in CSE department.



v. List all details of individual events held at stage1.



- e. Update the following data in the corresponding table.
 - i. Reduce the number of participants for Fancy dress as 30.



50 Select * from events; Explain Data Output Notifications Messages event_id allowed_participants event_name event_type character varying (10) character varying (10) [PK] integer character varying (20) integer 1 1 Group Song Group 10 Stage1 2 2 Group dance Group 10 Stage2 3 Elocution Individual 3 25 Stage1 4 Classical Dance Individual 4 20 Stage3 5 5 Mine Group 10 Stage2 6 Fancy Dress Individual 30 Stage1 6

ii. Change the venue of classical dance to stage1

```
50 Update Events
51 set Venue='Stage1'
52 where Event_name='Classical Dance';
Data Output Explain Messages Notifications
UPDATE 1
```

Query returned successfully in 128 msec.

Data Output Explain Messages Notifications							
4	event_id [PK] integer	Ø.	event_name character varying (20)	event_type character varying (10)	allowed_participants integer		venue character varying (10)
1		1	Group Song	Group		10	Stage1
2		2	Group dance	Group		10	Stage2
3		3	Elocution	Individual		25	Stage1
4		5	Mine	Group		10	Stage2
5		6	Fancy Dress	Individual		30	Stage1
6		4	Classical Dance	Individual		20	Stage1

Change the score of Chess no GS3 for event id 1 to 5 iii.



UPDATE 1

Query returned successfully in 129 msec.

57 **select** * **from** registration;

Data Output Explain Messages Notifications						
4	chess_no [PK] character varying (5)	event_id integer	student_dept character varying (3)	score integer		
1	GS1	1	CSE	10		
2	GS2	1	ECE	8		
3	GD1	2	EEE	9		
4	GD2	2	CSE	8		
5	E1	3	ME	10		
6	E2	3	EEE	8		
7	CD1	4	CSE	10		
8	CD2	4	EEE	8		
9	CD3	4	CSE	8		
10	M1	5	CSE	9		
11	M2	5	ME	7		
12	M3	5	ECE	8		
13	FD1	6	ME	9		
14	FD2	6	CSE	8		
15	FD3	6	EEE	7		
16	FD4	6	CSE	8		
17	GS3	1	CSE	5		

iv. Change the score of all participants of CSE department for event with id 6 to 9.

```
update Registration
set score=9
where event_id=6 and student_dept='CSE';

Data Output Explain Messages Notifications

UPDATE 2
```

Query returned successfully in 130 msec.

61 **select** * **from** registration;

Data Output Explain Messages Notifications					
	chess_no [PK] character varying (5)	event_id integer	student_dept character varying (3)	score integer	
1	GS1	1	CSE	10	
2	GS2	1	ECE	8	
3	GD1	2	EEE	9	
4	GD2	2	CSE	8	
5	E1	3	ME	10	
6	E2	3	EEE	8	
7	CD1	4	CSE	10	
8	CD2	4	EEE	8	
9	CD3	4	CSE	8	
10	M1	5	CSE	9	
11	M2	5	ME	7	
12	M3	5	ECE	8	
13	FD1	6	ME	9	
14	FD3	6	EEE	7	
15	GS3	1	CSE	5	
16	FD2	6	CSE	9	
17	FD4	6	CSE	9	

v. Change the venue of all group events at stage 2 to stage 3.

- 62 **update** events
- 63 **set** venue='Stage3'
- 64 where venue='Stage2';

Data Output Explain Messages Notifications

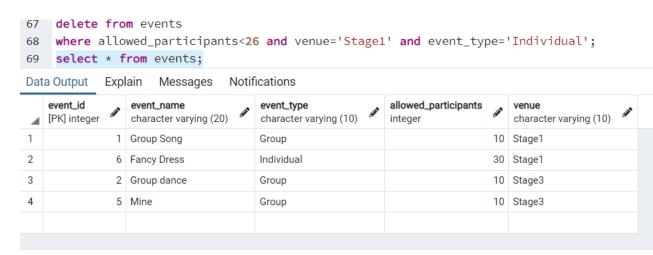
UPDATE 2

Query returned successfully in 138 msec.

65 **select** * **from** events;

Dat	Data Output Explain Messages Notifications						
4	event_id [PK] integer	event_name character varying (20)	event_type character varying (10)	allowed_participants integer	venue character varying (10)		
1	1	Group Song	Group	10	Stage1		
2	3	Elocution	Individual	25	Stage1		
3	6	Fancy Dress	Individual	30	Stage1		
4	4	Classical Dance	Individual	20	Stage1		
5	2	Group dance	Group	10	Stage3		
6	5	Mine	Group	10	Stage3		

f. Delete the individual event at stage 1 whose number of participants allowed is less than 26.



g. Export the data in the relations *Events* and *Registration* to events.csv and registration.csv respectively.



	Α	В	С	D	Е
1	event_id	event_name	event_type	allowed_participants	venue
2	1	Group Song	Group	10	Stage1
3	6	Fancy Dress	Individual	30	Stage1
4	2	Group dance	Group	10	Stage3
5	5	Mine	Group	10	Stage3
6					
-					

	Α	В	С	D	E
1	chess_no	event_id	student_dept	score	
2	GS1	1	CSE	10	
3	GS2	1	ECE	8	
4	GD1	2	EEE	9	
5	GD2	2	CSE	8	
6	E1	3	ME	10	
7	E2	3	EEE	8	
8	CD1	4	CSE	10	
9	CD2	4	EEE	8	
10	CD3	4	CSE	8	
11	M1	5	CSE	9	
12	M2	5	ME	7	
13	M3	5	ECE	8	
14	FD1	6	ME	9	
15	FD3	6	EEE	7	
16	GS3	1	CSE	5	
17	FD2	6	CSE	9	
18	FD4	6	CSE	9	
19					
