### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

#### **REVIEW II**

Course name: Mini Project Course Code: CSE56

Academic Session: Aug - Nov 2018

### Student details:

USN	Name of the student	Semester	Section	Date of Submission
1NH17CS407	IQRA ANJUM	5 <sup>th</sup>	В	09-10-2018

### **HOTEL DATABASE**

Students to demonstrate queries as following (Reviewers to ask them)

# Queries on DDL Commands (5 Marks)

**Tables creation** 

# Department table

Create table department(dept\_id varchar(4) primary key,d\_name varchar(20) not null ,d\_loc varchar(20),d\_ph\_no bigint(11) unsigned zerofill default 08022146133);

## Employee table

create table employee(emp\_id varchar(4) primary key,fname varchar(20) not null,lname varchar(20),designation varchar(30),e\_ph\_no bigint(10),address varchar(30) not null,salary decimal(10,2),dept\_id varchar(4),foreign key(dept\_id) references department(dept\_id) on delete cascade on update cascade);

#### room table

create table room(r\_no varchar(4) primary key,r\_type varchar(30) default 'general',no\_of\_bed int(1) default 1);

### customer table

create table costumer(c\_id varchar(5) primary key,c\_fname varchar(20) not null,c\_lname varchar(20),c\_address varchar(30),c\_ph\_no bigint(10) not null);

### payment table

create table payment(tr\_no varchar(20) primary key,p\_mode varchar(30) not null,p\_date date not null,total\_amount decimal(10,2),c\_id varchar(5),foreign key(c\_id) references customer(c\_id) on delete cascade on update cascade);

## booking table

create table booking( $c_i$ d varchar(5), $r_i$ no varchar(4),check\_in date,check\_out date, foreign key( $c_i$ d) references customer( $c_i$ d) on delete cascade on update cascade, foreign key( $r_i$ no) references room( $r_i$ no) on delete cascade on update cascade);

**Q)**set not null constrain to d\_name of department table

alter table department modify d\_name varchar(20) not null;

# output

mysql> desc	department;		L		
Field	Туре	Nu11	Кеу	Default	Extra
dept_id   d_name   d_loc   d_ph_no	varchar(4)   varchar(20)   varchar(20)   bigint(11) unsigned zerofill	NO NO YES YES	PRI	NULL   NULL   NULL   08022146133	
4 rows in set (0.01 sec)				,	

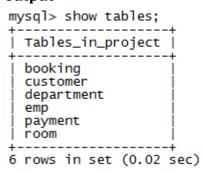
**Q)** Change the column name designation to job from employee table alter table emp change designation job varchar(20);

# output

mysql> des	c emp;				
Field	Туре	Null	Кеу	Default	Extra
emp_id fname lname job e_ph_no address salary dept_id	varchar(4) varchar(20) varchar(20) varchar(20) bigint(10) varchar(30) decimal(10,2) varchar(4)	NO NO YES YES YES NO YES YES	PRI MUL	NULL NULL NULL NULL NULL NULL NULL NULL	
8 rows in set (0.00 sec)					

**Q)**Change the table name of employee to emp rename table project.employee to project.emp;

### output



# Single table Queries (10 Marks)

## Aggregate function

**Q)** Display total salary, no of employees, average of salary, highest salary, and lowest salary using aggregate functions

select sum(salary) as 'total Salary',count(\*) as 'no\_of\_emplyees',max(salary) ,min(salary) as 'lowest salary', avg(salary) as 'average of salary' from employee;

```
output paraly as average or sarary from emproyee,
 | total Salary | no_of_emplyees | max(salary) | lowest salary | average of salary |
                          11 | 45000.00 | 15000.00 | 20454.545455 |
     225000.00 |
1 row in set (0.06 sec)
```

# **Set operator**

**Q)** demonstrate set operator to display distinct values in c\_address column of customer

select c\_address from customer union select c\_address from customer;

### OUTPUT

```
mysql> select c_address from customer union select c_address from customer;
 c_address |
 bangalore
 mumbai
 chennai
 delhi
4 rows in set (0.00 sec)
```

# **Group by having**

**0)** display the no of employees containing same amount of salary and salary should be greater then 15000

select concat(fname,lname),salary from employee group by salary having salary>15000;

### output

```
mysql> select concat(fname, lname), salary from employee group by salary having salary>15000;
| concat(fname, lname) | salary
  karinakaif
suhailkhan
salmankhan
                       20000.00
25000.00
45000.00
3 rows in set (0.02 sec)
```

# Multi-table Queries (10 Marks)

### Joins

**Q)** display the customer name from customer table and check in date from booking table who have checked in, in July month using joins

select concat(c\_fname,c\_lname) as 'customer name',check\_in from customer c,booking b where c.c\_id and check\_in like '\_\_\_-07-\_\_';

## output

customer name	check_in
vijaisharma   rahulsharma   ajaysharma	2018-07-25   2018-07-28   2018-07-20
3 rows in set, 1	warning (0.08 sec)

# Nested queries

Q) display the details of available rooms in hotel using nested queries

select \* from room where r\_no not in(select r\_no from booking);

# output

r_no	r_type	no_of_bed
R012 R016 R017	dulex   general   air condition	2   1   2
3 rows	in set (0.00 sec)	)

## Correlated queries

**Q)** display the customer name and paid amount which is greater then average of paid amount using correlated queries

select concat(c\_fname,' ',c\_lname) as 'customer name',total\_amount from customer c,
payment p where c.c\_id=p.c\_id and p.total\_amount>(select avg(total\_amount) from
payment );

### output

