Practice Question of SQL

CREATE DATABASE ORG;

SHOW DATABASES;

Use ORG;

CREATE TABLE Worker (

WORKER\_ID INT NOT NULL PRIMARY KEY AUTO\_INCREMENT,

FIRST\_NAME CHAR(25),

LAST\_NAME CHAR(25),

SALARY INT (15),

JOINING\_DATE DATETIME,

DEPARTMENT CHAR(25)

);

INSERT INTO Worker

(WORKER\_ID,FIRST\_NAME,LAST\_NAME,SALARY,JOINING\_DATE,DEPARTMENT) VALUES

(001,'Monika','Arora', 100000, '14-02-20 09.00.00','HR'),

(002, 'Niharika', 'Verma', 80000, '14-06-11 09.00.00','Admin'),

(003, 'Vishal','Singhal', 300000, '14-02-20 09.00.00','HR'),

(004, 'Amitabh', 'Singh', 500000, '14-02-20 09.00.00','Admin'),

(005,'Vivek', 'Bhati', 500000, '14-06-11 09.00.00','Admin'),

(006, 'Vipul', 'Diwan', 200000, '14-06-11 09.00.00','Account'),

(007, 'Satish', 'Kumar', 75000, '14-01-20 09.00.00','Account'),

(008, 'Geetika', 'Chauhan', 90000, '14-04-11 09.00.00','Admin');

CREATE TABLE Bonus (

WORKER\_REF\_ID INT,

BONUS\_AMOUNT INT (10),

BONUS\_DATE DATETIME,

FOREIGN KEY (WORKER\_REF\_ID)

REFERENCES Worker (WORKER\_ID)

ON DELETE CASCADE

ON UPDATE CASCADE

);

INSERT INTO Bonus

(WORKER\_REF\_ID, BONUS\_AMOUNT, BONUS\_DATE) VALUES

(001, 5000, '16-02-20'),

(002, 3000, '16-06-11'),

(003, 4000, '16-02-20'),

(004, 4500, '16-02-20'),

(005, 3500, '16-06-11');

CREATE TABLE Title (

WORKER\_REF\_ID INT,

WORKER\_TITLE CHAR(25),

AFFECTED\_FROM DATETIME,

FOREIGN KEY (WORKER\_REF\_ID)

REFERENCES Worker (WORKER\_ID)

ON DELETE SET NULL

ON UPDATE CASCADE

);

INSERT INTO Title

(WORKER\_REF\_ID, WORKER\_TITLE, AFFECTED\_FROM) VALUES

(001, 'Manager', '2016-02-20 00:00:00'),

(002, 'Executive', '2016-06-11 00:00:00'),

(008, 'Executive', '2016-06-11 00:00:00'),

(005, 'Manager', '2016-06-11 00:00:00'),

(004, 'Asst. Manager', '2016-06-11 00:00:00'),

(007, 'Executive', '2016-06-11 00:00:00'),

(006, 'Lead', '2016-06-11 00:00:00'),

(003, 'Lead', '2016-06-11 00:00:00');

-- Q1

SELECT FIRST\_NAME AS WORKER\_NAME FROM Worker;

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-- Q2

SELECT ucase(FIRST\_NAME) FROM Worker;

SELECT UPPER(FIRST\_NAME) FROM Worker;

SELECT first\_name FROM Worker;

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-- Q3

SELECT DISTINCT DEPARTMENT FROM Worker;

SELECT DEPARTMENT FROM Worker group by DEPARTMENT;

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-- Q4

select substr(first\_name,1,3) from Worker;

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-- Q5

select INSTR(first\_name,'B') from Worker where first\_name='Amitabh';

-- INSTR() is case insensitive

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-- Q6

select rtrim(first\_name) from Worker;

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-- Q7

select ltrim(first\_name) from Worker;

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-- Q8

select DISTINCT DEPARTMENT,length(DEPARTMENT) FROM Worker;

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-- Q9

select replace(first\_name,'a','A') from worker;

select first\_name from worker;

-- No change in database

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-- Q10

select concat(first\_name,' ',last\_name) AS complete\_name from worker;

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-- Q11

select \* from worker order by first\_name;

select \* from worker order by first\_name DESC;

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-- Q12

select \* from worker order by first\_name,Department desc;

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-- Q13

select \* from worker where first\_name='Vipul' or first\_name='Satish';

select \* from worker where first\_name In ('Satish', 'Vipul');

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-- Q14

select \* from worker where first\_name NOT IN ('Satish', 'Vipul');

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-- Q15

select \* from worker where department Like 'Admin%';

-- --------------------------------------------------------

-- Q16

select \* from worker where first\_name Like '%a%';

-- --------------------------------------------------------

-- Q17

select \* from worker where first\_name like '%a';

-- --------------------------------------------------------

-- Q18

select \* from worker where first\_name like '\_\_\_\_\_h';

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-- Q19

select \*from worker where salary between 100000 and 500000;

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-- Q20

select \* from worker where year(joining\_date)=2014 and month(joining\_date)=02;

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-- Q21

select department,count(\*) from worker where department='Admin';

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-- Q22

select concat(first\_name,last\_name) as full\_name from worker where salary>=50000 and salary<=100000;

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-- Q23

select department,count(department) as number\_of\_worker from worker group by department order by number\_of\_worker desc;

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-- Q24

select w.\* from worker as w inner join Title as t on w.worker\_id=t.worker\_ref\_id where t.worker\_title='Manager';

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-- Q25

select worker\_title,count(\*) from title group by worker\_title having count(\*)>1;

select worker\_title,count(\*) as count from title group by worker\_title having count>1;

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-- Q26

select \* from worker where mod(worker\_id,2)!=0;

select \* from worker where mod(worker\_id,2)<>0;

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-- Q27

select \* from worker where mod(worker\_id,2)=0;

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-- Q28

create table worker\_clone LIKE Worker;

DESC worker\_clone;

select \* from worker\_clone;

insert into worker\_clone select \* from worker;

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-- Q29

select w.\*,wc.\* from worker as w inner join worker\_clone as wc on w.worker\_id=wc.worker\_id;

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-- Q30

select first\_name from worker left join bonus on worker\_id=worker\_ref\_id where worker\_ref\_id is NULL;

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-- Q31

select curdate();

select now();

-- -------------------------------------------------------------

-- Q32

select \* from worker order by salary desc limit 5;

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-- Q33

-- select \* from worker order by salary desc limit n-1,1;

select \* from worker order by salary desc limit 4,1;

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-- Q34

select salary from worker as w1

where 4=(select count(distinct w2.salary) from worker as w2 where w1.salary<=w2.salary);

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-- Q35

select w1.first\_name from worker as w1 inner join worker as w2 on w1.salary=w2.salary where w1.worker\_id!=w2.worker\_id;

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-- Q36

select max(salary) from worker

where salary not in(select max(salary) from worker);

-- For third max

select max(salary) from worker

where salary < ( select max(salary) from worker

where salary <(select max(salary) from worker));

-- ----------------------------------------------------------------

-- Q37

select \* from worker

union all

select \* from worker

order by worker\_id;

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-- Q38

select w1.worker\_id from worker as w1 left join bonus as b on w1.worker\_id=b.worker\_ref\_id where b.worker\_ref\_id is NULL;

select worker\_id from worker where worker\_id not in (select worker\_ref\_id from bonus);

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-- Q39

select \* from worker where worker\_id <=(select count(worker\_id)/2 from worker);

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-- Q40

select department from worker group by department having count(\*)<4;

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-- Q41

select department,count(\*) as depcount from worker group by department;

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-- Q42

select \* from worker where worker\_id in (select max(worker\_id) from worker);

select \* from worker where worker\_id in (select count(worker\_id) from worker);

-- ------------------------------------------------------------------------

-- Q43

select \*from worker where worker\_id in(select min(worker\_id) from worker);

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-- Q44

(select \* from worker order by worker\_id desc limit 5) order by worker\_id;

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-- Q45

select w.first\_name,w.department,w.salary from

(select max(salary) as maxsal,department from worker group by department) as temp

inner join worker w on temp.department=w.department and temp.maxsal=w.salary;

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-- Q46

select distinct(salary) from worker as w1

where 3>=(select count(distinct salary) from worker as w2 where w1.salary<=w2.salary) order by w1.salary;

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-- Q47

select distinct(salary) from worker as w1

where 3>=(select count(distinct salary) from worker as w2 where w1.salary>=w2.salary) order by w1.salary;

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-- Q48

select distinct(salary) from worker as w1

where n>=(select count(distinct salary) from worker as w2 where w1.salary<=w2.salary) order by w1.salary;

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-- Q49

select department,sum(salary) from worker group by department order by sum(salary) desc;

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-- Q50

select \* from worker where salary in (select max(salary) from worker);

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