**Assessment Test**

**Organization -** Kantar

**Role -** Consultant

**Experience -** 2+ years

**Task 1:**

The below table represents Org Hierarchy of a Unicorn Startup.

Constraints : No Key can be blank.

Each resource(who are not managers) would work under 1 Business unit only.

A Manager can oversee multiple business units.

Corporate Business Unit consists of Managers overseeing the individual Business units and the Exec level to whom the manager's report.

All the Exec levels finally report to the CEO.

create table employee( resource\_name string, business\_unit string, reporting\_manager string );

insert into employee values('Michele','Finance','John');

insert into employee values('Timothy','Finance','John');

insert into employee values('Germaine','Technical','Marry');

insert into employee values('Marilyn','Technical','Marry');

insert into employee values('Michael','HR','Jason');

insert into employee values('Anna','HR','Julie');

insert into employee values('Brenda','Admin','Julie');

insert into employee values('John','Corporate','Mikey');

insert into employee values('Mary','Corporate','Mikey');

insert into employee values('Mikey','Corporate','Judith');

**WAQ to find;**

1) Number of resources by each Business Unit.

2) Manager with the Highest Number of Direct Reportees.

3) Managers, who have been a part of more than one Business Unit.

4) CEO of the company.

**Task 2:**

The below table consists of data from the E-commerce platform.

create table orders( Order\_no int, purchase\_amount int, order\_date string, customer\_name string );

insert into orders values(1001,100,'2022-02-01','Andy');

insert into orders values(1002,115,'2022-02-08','Bob');

insert into orders values(1003,120,'2022-02-10','Charlie');

insert into orders values(1004,85,'2022-02-26','Dave');

insert into orders values(1005,60,'2022-03-06','Elgar');

insert into orders values(1006,75,'2022-03-07','Bob');

insert into orders values(1007,200,'2022-03-09','Dave');

insert into orders values(1008,15,'2022-03-10','Andy');

insert into orders values(1009,90,'2022-03-11','Iris');

insert into orders values(1010,80,'2022-03-11','Wally');

**WAQ to find;**

1) Customers who made a purchase in the month of FEB 2022.

2) Customers, who have purchased more than once during the entire duration.

3) Aggregation of Sales, Customers, Orders, Average Sales per Customer($) and Average Order value($) by each day for the entire duration.

4) Customer with second highest sales for the entire duration.

**Task 3:**

The below tables represent the Test Database of an Organization, which facilitates various online Certifications.

An individual, who would want a certification needs to register on their Website and then take the test by paying the required amount as per the course.

create table applicant(aid int, registered\_date string, name string);

insert into applicant values(1001,"2020-02-01","Andy");

insert into applicant values(1001,"2020-02-01","Bob");

insert into applicant values(1001,"2020-02-01","Candice");

insert into applicant values(1001,"2020-02-01","Dave");

insert into applicant values(1001,"2020-02-01","Elgar");

insert into applicant values(1001,"2020-02-01","Frances");

insert into applicant values(1001,"2020-02-01","Grant");

insert into applicant values(1001,"2020-02-01","Helen");

insert into applicant values(1001,"2020-02-01","Iris");

insert into applicant values(1001,"2020-02-01","Jack");

create table course(cid int, course\_name string,exam\_fee int);

insert into course values(101,"SQL",50);

insert into course values(102,"R Programming",75);

insert into course values(103,"Python",60);

insert into course values(104,"Tableau",80);

insert into course values(105,"Power BI",70);

create table test(tid int,aid int,cid int,test\_date string,result string);

insert into test values(1,1001,101,"2020-02-10","Cleared");

insert into test values(2,1002,103,"2020-02-15","Cleared");

insert into test values(3,1004,105,"2020-02-18","Not Cleared");

insert into test values(4,1005,106,"2020-02-19","Not Cleared");

insert into test values(5,1001,102,"2020-03-15","Cleared");

insert into test values(6,1004,105,"2020-03-15","Cleared");

insert into test values(7,1005,106,"2020-03-16","Not Cleared");

**WAQ to find;**

1) Applicants, who have registered but are yet to take a test.

2) Applicants, who have not yet given the SQL Test.

3) Number of tests taken, Revenue Generated and Pass Percentage by Course name.

4) Average Number of Days between the Registration Date and the First test given by the applicants so far.