**SQL USECASE 2 (AGGREGATIONS, JOIN)**

TABLE CREATION

Create table STUDENT (

ID char(4) PRIMARY KEY NOT NULL,

NAME varchar(20) NOT NULL,

DEPARTMENT varchar(3) NOT NULL,

CGPA decimal(2,1) NOT NULL

);

Create table COMPANY(

ID char(4) PRIMARY KEY NOT NULL,

NAME varchar(20) NOT NULL,

LOCATION varchar(20),

INTERVIEW\_DATE date

);

Create table PLACEMENTS (

S\_ID char(4) NOT NULL,

C\_ID char(4) NOT NULL,

PACKAGE int,

CONSTRAINT skey FOREIGN KEY(S\_ID) REFERENCES STUDENT(ID),

CONSTRAINT ckey FOREIGN KEY(C\_ID) REFERENCES COMPANY(ID),

CONSTRAINT pl\_pkey PRIMARY KEY(S\_ID,C\_ID)

);

INSERTION

INSERT INTO STUDENT VALUES('S001','ARUN','CS',8);

INSERT INTO STUDENT VALUES('S002','GITA','CS',7.5);

INSERT INTO STUDENT VALUES('S003','KUMAR','IT',6);

INSERT INTO STUDENT VALUES('S004','ROHIT','IT',8.5);

INSERT INTO STUDENT VALUES('S005','YAMUNA','ECE',9);

INSERT INTO STUDENT VALUES('S006','YOGESH','ECE',9);

INSERT INTO COMPANY VALUES

('C001','MICROSOFT','BANGALORE','2020-08-01');

INSERT INTO COMPANY VALUES(

'C002','AMAZON','CHENNAI','2020-09-10');

INSERT INTO COMPANY VALUES

('C003','FLIPKART','BANGALORE','2020-09-15');

INSERT INTO COMPANY VALUES

('C004','HONEYWELL','HYDERABAD','2020-10-30');

INSERT INTO COMPANY VALUES

('C005','ACCENTURE','CHENNAI','2020-11-30');

INSERT INTO COMPANY VALUES

('C006','WIPRO','NOIDA','2020-12-31');

INSERT INTO PLACEMENTS VALUES('S001','C001',2000000);

INSERT INTO PLACEMENTS VALUES('S002','C001',2000000);

INSERT INTO PLACEMENTS VALUES('S003','C002',1200000);

INSERT INTO PLACEMENTS VALUES('S004','C004',700000);

INSERT INTO PLACEMENTS VALUES('S004','C006',400000);

INSERT INTO PLACEMENTS VALUES('S006','C004',700000);

**Question 1**

Write a SQL query to find student who got placed with highest package, along with the name of the company.

SELECT STUDENT.NAME AS STUDENT,

COMPANY.NAME AS COMPANY,

PACKAGE

FROM PLACEMENTS JOIN STUDENT JOIN COMPANY

ON STUDENT.ID = PLACEMENTS.S\_ID

AND COMPANY.ID = PLACEMENTS.C\_ID

WHERE PACKAGE = ( SELECT MAX(PACKAGE) FROM PLACEMENTS );

**Question 2**

HOD of ECE department wants to know placement details of all his department students, Write a SQL query for this scenario.

WITH STU AS (

SELECT \* FROM STUDENT

LEFT JOIN PLACEMENTS

ON STUDENT.ID = PLACEMENTS.S\_ID

WHERE DEPARTMENT = 'ECE'

) SELECT STU.NAME AS STUDENT,

DEPARTMENT,I

F(PACKAGE IS NULL,'NO','YES') AS PLACED,

IF(COMPANY.NAME IS NULL,'-',COMPANY.NAME) AS COMPANY,

IF(PACKAGE IS NULL,'-',PACKAGE) AS PACKAGE

FROM STU LEFT JOIN COMPANY

ON COMPANY.ID = STU.C\_ID ;

**Question 3**

Write a SQL query to display total number of students each company has hired.

WITH HIRED AS (

SELECT COUNT(C\_ID) AS NO\_OF\_STUDENTS,

C\_ID FROM PLACEMENTS

GROUP BY C\_ID

) SELECT NAME AS COMPANY,

COALESCE(NO\_OF\_STUDENTS,0) AS NO\_OF\_STUDENTS FROM HIRED RIGHT JOIN COMPANY

ON COMPANY.ID = HIRED.C\_ID ;

**Question 4**

Write a SQL query which displays list of companies conducted interview in month of september.

SELECT MONTHNAME(INTERVIEW\_DATE) AS MONTH,

NAME AS COMPANY

FROM COMPANY WHERE MONTH(INTERVIEW\_DATE) = 9;

**Question 5**

Write a SQL query which displays list of companies which conducted interview till date.

SELECT NAME AS COMPANY,

INTERVIEW\_DATE AS DATE

FROM COMPANY WHERE INTERVIEW\_DATE < NOW() ;

**Question 6**

Dean would like to know the students who got more than one placement offer, write a SQL query for this scenario.

WITH MULTIPLE AS (

SELECT S\_ID,

C\_ID,

NAME AS STUDENT

FROM PLACEMENTS JOIN STUDENT

ON STUDENT.ID = PLACEMENTS.S\_ID

GROUP BY S\_ID HAVING COUNT(S\_ID) > 1

) SELECT STUDENT,

NAME AS COMPANY

FROM PLACEMENTS JOIN MULTIPLE JOIN COMPANY

ON COMPANY.ID= PLACEMENTS.C\_ID

AND PLACEMENTS.S\_ID = MULTIPLE.S\_ID;

**Question 7**

Accenture would like to shortlist candidates with CGPA > 7 and no need of student who already got placed, write SQL query that statisfies their given criteria.

SELECT STUDENT.NAME AS STUDENT,

DEPARTMENT,

CGPA

FROM STUDENT LEFT JOIN PLACEMENTS

ON STUDENT.ID = PLACEMENTS.S\_ID

WHERE CGPA >7 AND PLACEMENTS.S\_ID IS NULL;

**Question 8**

Yamuna decided that she will attend the interview of companies who's location name starts with 'B', write a query that gets the list of company she can attend.

SELECT NAME,

LOCATION

FROM COMPANY WHERE LOCATION LIKE 'B%';