TABLES

create table PROJECTS (projectId Number primary key,status varchar(20) not null,startDate date not null,endData varchar(20) not null);

create table MANAGER (managerId Number primary key,lname varchar(20) not null,fname varchar(20) not null,salary Number not null,email varchar(30),projectId Number references PROJECTS(projectId) not null);

create table DEPARTMENT (departmentId Number primary key,deptName varchar(20) not null,location varchar(20) not null,managerId Number references MANAGER(managerId) not null);

create table DELIVERY (deliveryId Number primary key,date date not null,tracking varchar(20) not null,#OfProducts Number not null);

create table ORDERS (orderId Number primary key,availability varchar(20) not null,#OfProducts Number not null,deliveryId Number references DELIVERY(deliveryId) not null);

create table PRODUCT (productId Number primary key,expiryDate date not null,price Number not null,orderId Number references ORDERS(orderId) not null);

create table EMPLOYEE (employeeId Number primary key,lname varchar(20) not null,fname varchar(20) not null,

mobileNumber varchar(20) not null,email varchar(30) not null,salary Number not null,

deparmentId Number references DEPARTMENT(departmentId) not null,productId Number references PRODUCT(productId) not null);

INSERT

insert into DELIVERY (deliveryId,date,tracking,#OfProducts) values (433,TO_DATE('23/09/2022','dd/mm/yyyy'),'notArrived',87);

insert into DELIVERY (deliveryId,date,tracking,#OfProducts) values (811,TO_DATE('15/09/2022','dd/mm/yyyy'),'Arrived',123);

insert into DELIVERY (deliveryId,date,tracking,#OfProducts) values (566,TO_DATE('31/08/2022','dd/mm/yyyy'),'Arrived',54);

insert into ORDERS (orderId,availability,#OfProducts,deliveryId) values (10,'available',23,811);

insert into ORDERS (orderId,availability,#OfProducts,deliveryId) values (20,'Notavailable',51,433);

insert into ORDERS (orderId,availability,#OfProducts,deliveryId) values (30,'Notavailable',30,566);

insert into ORDERS (orderId,availability,#OfProducts,deliveryId) values (40,'available',39,433);

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insert into PRODUCT (productId,expiryDate,price,orderId) values
(111,TO_DATE('01/07/2024','dd/mm/yyyy'),320,30);

insert into PRODUCT (productId,expiryDate,price,orderId) values
(444,TO_DATE('31/12/2023','dd/mm/yyyy'),47,10);

insert into PRODUCT (productId,expiryDate,price,orderId) values
(555,TO_DATE('17/04/2023','dd/mm/yyyy'),36,20);

insert into PRODUCT (productId,expiryDate,price,orderId) values
(777,TO_DATE('21/05/2023','dd/mm/yyyy'),55,10);


insert into PROJECTS (projectId,status,startDate,endData) values
(04,'prior',TO_DATE('01/02/2023','dd/mm/yyyy'),'implemention');

insert into PROJECTS (projectId,status,startDate,endData) values
(05,'prior',TO_DATE('01/04/2023','dd/mm/yyyy'),'draft');

insert into PROJECTS (projectId,status,startDate,endData) values
(06,'notPrior',TO_DATE('01/08/2023','dd/mm/yyyy'),'notStarted');

insert into PROJECTS (projectId,status,startDate,endData) values
(07,'prior',TO_DATE('15/02/2023','dd/mm/yyyy'),'design');


insert into MANAGER (managerId,lname,fname,salary,email,projectId) values
(21,'Denzel','Washington',32500,'denzel_wash@gmail.com',07);

insert into MANAGER (managerId,lname,fname,salary,email,projectId) values
(45,'Houston','Johanson',21000,'hous.john@gmail.com',06);

insert into MANAGER (managerId,lname,fname,salary,email,projectId) values
(30,'Thomas','Hirresfield',120000,'thomas/hirr001@gmail.com',05);

insert into MANAGER (managerId,lname,fname,salary,email,projectId) values
(29,'Kathlin','Drobess',56000,'kath_drobbes@gmail.com',04);


insert into DEPARTMENT (departmentId,deptName,location,managerId) values
(2020,'Finance','Chicago',29);

insert into DEPARTMENT (departmentId,deptName,location,managerId) values
(2030,'Marketing','Houston',30);

insert into DEPARTMENT (departmentId,deptName,location,managerId) values
(2040,'Design','Chicago',21);

insert into DEPARTMENT (departmentId,deptName,location,managerId) values
(2050,'Programming','Brokklyn',45);
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insert into EMPLOYEE
(employeeId,lname,fname,mobileNumber,email,salary,deparmentId,productId) values

(2100829,'Liam','Garcia',32-054-00,'liam_garcia@gmail.com',25000,2030,777);

insert into EMPLOYEE
(employeeId,lname,fname,mobileNumber,email,salary,deparmentId,productId) values

(2301789,'Noah','Miller',50-033-21,'noah_miller@gmail.com',58000,2050,555);

insert into EMPLOYEE
(employeeId,lname,fname,mobileNumber,email,salary,deparmentId,productId) values

(1711010,'Oliver','Smith',55-201-40,'oliver_smith@gmail.com',120000,2040,111);

insert into EMPLOYEE
(employeeId,lname,fname,mobileNumber,email,salary,deparmentId,productId) values

(4300302,'James','Carter',60-120-57,'carter_james@gmail.com',20000,2020,444);
```

FUNCTIONS

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--JOIN 1:return employees whose department is in Chicago.

select e.lname+' '+e.fname 'name' from EMPLOYEE e,DEPARTMENT d where
e.deparmentId=d.departmentId and upper(d.location)='CHİCAGO';

--JOIN 2:return managers with a priority project to get started.

select m.fname+' '+m.lname 'name' from MANAGER m,PROJECTS p where m.projectId=p.projectId
and p.status='prior';


--NESTED 1:return names of employees working in the department of design along with their salaries

select e.lname,e.salary from EMPLOYEE e,DEPARTMENT d where  e.deparmentId = (select
departmentId from DEPARTMENT where upper(deptName)='DESİGN') and
e.deparmentId=d.departmentId;

--NESTED 2:return price of products with more than 40 orders.

select p.price from PRODUCT p,ORDERS o where p.orderId IN (select orderId from ORDERS where
#OfProducts>30) and p.orderId=o.orderId;


--SET OP. 1:returns deliveries that have available order.

select deliveryId from DELIVERY except select deliveryId  from ORDERS where
upper(availability)='AVAİLABLE';

--SET OP 2:returns employee and manager emails.
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select email from EMPLOYEE UNION select email from MANAGER;


--AGGREGATE OP. 1:return the average  salary of employees whose department is marketing.

select avg(e.salary) 'salary' from EMPLOYEE e,DEPARTMENT d where e.deparmentId=d.departmentId and upper(d.deptName)='MARKETİNG' group by e.deparmentId;

--AGGREGATE OP 2:return each projects with their number of managers.

select p.projectId,count(m.managerId) 'number of manager' from PROJECTS p,MANAGER m where p.projectId=m.projectId group by m.projectId,p.projectId order by count(m.managerId) desc;
```