# COMP518 ASSIGNMENT 3

CREATE DATABASE Companydb;

USE Companydb;

CREATE TABLE Employee (

eId VARCHAR(8) NOT NULL,

eName VARCHAR(20) NOT NULL,

Age INT(3) NOT NULL,

PRIMARY KEY(eId)

);

CREATE TABLE Department (

dId INT(4) NOT NULL,

dName VARCHAR(20) NOT NULL,

address VARCHAR(100) NOT NULL,

PRIMARY KEY(dId)

);

CREATE TABLE WorksIn (

eId VARCHAR(8) NOT NULL,

dId INT(4) NOT NULL,

since VARCHAR(4) NOT NULL,

PRIMARY KEY(eId,dId)

);

CREATE TABLE Product (

pId VARCHAR(5) NOT NULL,

pName VARCHAR(30) NOT NULL,

```sql
pType VARCHAR(10) NOT NULL,

pColour VARCHAR(10) NOT NULL,

PRIMARY KEY(pId)

);


CREATE TABLE Sells (

dId INT(4) NOT NULL,

pId VARCHAR(5) NOT NULL,

pStock VARCHAR(1000) NOT NULL,

quantitySold VARCHAR(1000) NOT NULL,

PRIMARY KEY(dId,pId)

);




INSERT INTO employee VALUES('10283649','adam','27');

INSERT INTO employee VALUES('10247485','harris','25');

INSERT INTO employee VALUES('10346483','ken','29');

INSERT INTO employee VALUES('10237483','alex','23');

INSERT INTO employee VALUES('13749400','ragnar','35');

INSERT INTO employee VALUES('10273849','pedri','40');

INSERT INTO employee VALUES('10876779','adama','56');

INSERT INTO employee VALUES('10873579','adpma','886');



INSERT INTO department VALUES('1001','CENTRAL','190 king street L611AU');

INSERT INTO department VALUES('1002','ALLIED','190 Queen street L611AH');

INSERT INTO department VALUES('1003','PLASTICS','190 Prince street L611AJ');



INSERT INTO worksIn VALUES('10283649','1003','2015');
```

```sql
INSERT INTO worksIn VALUES('10247485','1002','2014');

INSERT INTO worksIn VALUES('10346483','1001','2011');

INSERT INTO worksIn VALUES('10237483','1001','2009');

INSERT INTO worksIn VALUES('13749400','1003','2016');

INSERT INTO worksIn VALUES('10273849','1001','2020');

INSERT INTO worksIn VALUES('10876779','1002','2011');

INSERT INTO worksIn VALUES('10987779','1003','2011');



INSERT INTO product VALUES('P0001','DRILL','TOOL', RED );

INSERT INTO product VALUES('P0002','TEDDY', TOY, blue );

INSERT INTO product VALUES('P0003','PEPSI','DRINK', GREEN );

INSERT INTO product VALUES('P0004','CASE','BOX', ORANGE );

INSERT INTO product VALUES('P0005','SIPPER','BOTTLE', BLACK );

INSERT INTO product VALUES('P0006','LATEX','BED', RED );

INSERT INTO product VALUES('P0007','A4','PAPER', WHITE );

INSERT INTO product VALUES('P0008','CTYPE','CHARGER', RED );

INSERT INTO product VALUES('P0009','bedsheet','cloth', WHITE );

INSERT INTO product VALUES('P0010','jacket','waterproof', RED );



INSERT INTO sells VALUES('1001','P0001','120','100');

INSERT INTO sells VALUES('1002','P0002','502','400');

INSERT INTO sells VALUES('1003','P0003','220','120');

INSERT INTO sells VALUES('1002','P0004','909','504');

INSERT INTO sells VALUES('1001','P0005','990','709');

INSERT INTO sells VALUES('1002','P0006','437','345');

INSERT INTO sells VALUES('1003','P0007','975','765');

INSERT INTO sells VALUES('1002','P0008','286','124');

INSERT INTO sells VALUES('1002','P0009','974','785');

INSERT INTO sells VALUES('1002','P0010','284','154');
```

QUERY SYNTAX

QUERY 1-

SELECT D.dname FROM department D WHERE D.dId IN (SELECT S.dId FROM sells S WHERE S.pId IN (SELECT P.pId FROM product P WHERE P.pcolour =  blue ));

QUERY 2-

SELECT D.dname FROM department D WHERE D.dId IN (SELECT S.dId FROM sells S WHERE S.pId IN (SELECT P.pId FROM product P WHERE P.ptype =  toy  OR P.ptype = 'tool'));

QUERY 3-

SELECT D.dname FROM department D WHERE D.dId IN (SELECT S.dId FROM sells S WHERE S.pstock > 0 AND S.pId IN (SELECT P.pId FROM product P WHERE P.pcolour = 'RED'));

QUERY 4-

CREATE VIEW colour AS SELECT dId from A where pcolour='blue';

CREATE VIEW EMPLOYESORT AS SELECT eId FROM employee WHERE age < 40;

CREATE VIEW DEPTVIEW AS SELECT EMPLOYESORT.eId, worksin.dId FROM EMPLOYESORT, worksin WHERE EMPLOYESORT.eId = worksin.eId;

SELECT dId FROM DEPTVIEW INTERSECT SELECT dId FROM COLOUR;

QUERY 5-

create view excercise1 as select employee.eID, employee.age, worksIN.dId from employee INNER join worksIN on employee.eID = worksIn.eID;

select did, max(age) from excercise1 group by did;

QUERY 6-

create view ages1 as select employee.eID, employee.age, worksIN.dId, employee.ename from employee INNER join worksIN on employee.eID = worksIn.eID;

SELECT ename FROM ages1 WHERE age > (SELECT min(age) FROM ages1 WHERE dId = 1001);


QUERY 7-

create view empname as select employee.eID, worksIN.dId, employee.ename from employee INNER join worksIN on employee.eID = worksIn.eID;

CREATE VIEW empid AS SELECT worksin.eId FROM worksin, dept WHERE worksin.dId = dept.dId;

SELECT employee.ename FROM employee, empid WHERE employee.eId = empid.eId;