# Assignment 6

Create table through appropriate SQL commands. Define all integrity constraints and enter sufficient data.

Parts(p\_id,p\_name)

Supplier(s\_id,s\_name)

SPJ(s\_id,p\_id,cost)

Create table through appropriate SQL commands. Define all integrity constraints and enter sufficient data.

a) Give the parts name supplied by S1.

b) Select the number of parts supplied by each supplier

c) What parts are supplied only by S1?

d) Give name of the parts which one is supplied by all the suppliers.

e) What parts are supplied by both S1 & S2?

f) Give the supplier name who supplied parts of maximum cost

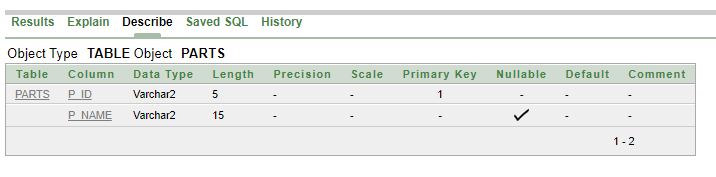
# Solution

## Table creation

### Parts

CREATE TABLE PARTS(P\_ID VARCHAR2(5),P\_NAME VARCHAR2(15),PRIMARY KEY(P\_ID));

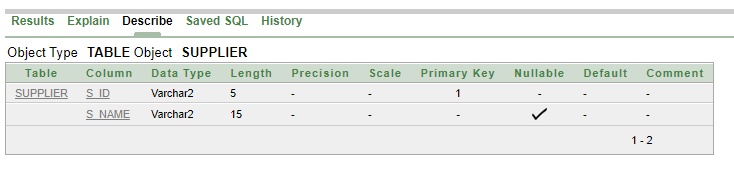
DESC PARTS;



### Supplier

CREATE TABLE SUPPLIER(S\_ID VARCHAR2(5),S\_NAME VARCHAR2(15),PRIMARY KEY(S\_ID));

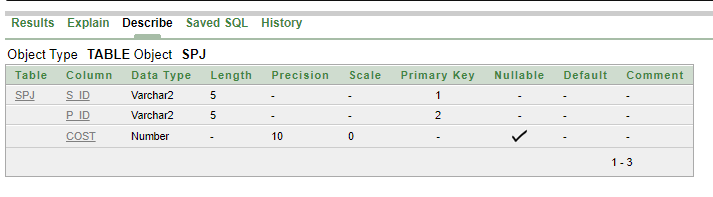
DESC SUPPLIER;



### SPJ

CREATE TABLE SPJ(S\_ID VARCHAR2(5),P\_ID VARCHAR2(5),COST NUMBER(10),PRIMARY KEY(S\_ID,P\_ID),FOREIGN KEY(S\_ID) REFERENCES SUPPLIER(S\_ID),FOREIGN KEY(P\_ID) REFERENCES PARTS(P\_ID));

DESC SPJ;



## Value insertion

### Parts

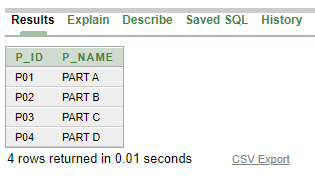
INSERT INTO PARTS VALUES('P01', 'PART A');

INSERT INTO PARTS VALUES('P02', 'PART B');

INSERT INTO PARTS VALUES('P03', 'PART C');

INSERT INTO PARTS VALUES('P04', 'PART D');

SELECT \* FROM PARTS;



### Supplier

INSERT INTO SUPPLIER VALUES('S1', 'MUKESH DHOR');

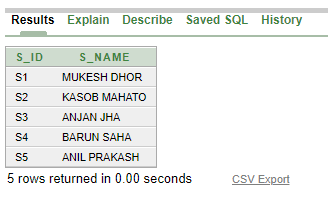
INSERT INTO SUPPLIER VALUES('S2', 'KASOB MAHATO');

INSERT INTO SUPPLIER VALUES('S3', 'ANJAN JHA');

INSERT INTO SUPPLIER VALUES('S4', 'BARUN SAHA');

INSERT INTO SUPPLIER VALUES('S5', 'ANIL PRAKASH');

SELECT \* FROM SUPPLIER;



### SPJ

INSERT INTO SPJ VALUES('S1', 'P02','1000');

INSERT INTO SPJ VALUES('S1', 'P04','1050');

INSERT INTO SPJ VALUES('S3', 'P01','2300');

INSERT INTO SPJ VALUES('S1', 'P03','1900');

INSERT INTO SPJ VALUES('S5', 'P01','10000');

INSERT INTO SPJ VALUES('S1', 'P01','2400');

INSERT INTO SPJ VALUES('S2', 'P02','3090');

INSERT INTO SPJ VALUES('S3', 'P02','4900');

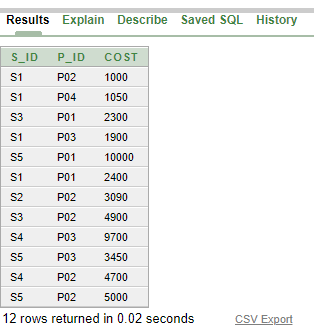
INSERT INTO SPJ VALUES('S4', 'P03','9700');

INSERT INTO SPJ VALUES('S5', 'P03','3450');

INSERT INTO SPJ VALUES('S4', 'P02','4700');

INSERT INTO SPJ VALUES('S5', 'P02','5000');

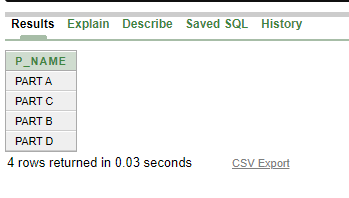
SELECT \* FROM SPJ;



## Queries

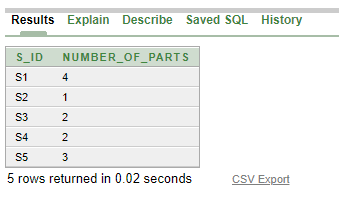
1. *Give the parts name supplied by S1.*

**ans.** select distinct p\_name from spj natural join parts where s\_id = 'S1';



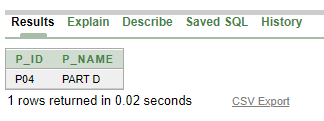
1. *Select the number of parts supplied by each supplier*

**ans.** select s\_id, count(p\_id) as number\_of\_parts from spj group by s\_id;



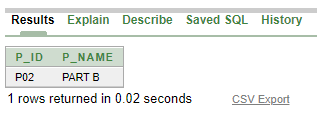
1. *What parts are supplied only by S1?*

**ans.** select p\_id, p\_name from parts where p\_id in ((select p\_id from spj where s\_id = ‘S1’) minus (select distinct p\_id from spj where s\_id <> ‘S1’));



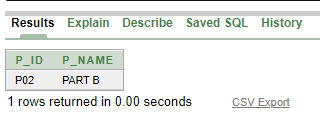
1. *Give name of the parts which one is supplied by all the suppliers.*

**ans.** select p\_id, p\_name from parts where p\_id in ((select distinct p\_id from spj) minus (select distinct p\_id from ((select \* from (select s\_id from supplier), (select distinct p\_id from spj)) minus (select s\_id, p\_id from spj))));



1. *What parts are supplied by both S1 & S2?*

**ans.** select p\_id, p\_name from parts where p\_id in ((select p\_id from spj where s\_id = ‘S1’) intersect (select p\_id from spj where s\_id = ‘S2’));



1. *Give the supplier name who supplied parts of maximum cost*

**ans.** select s\_id, s\_name from supplier where s\_id in (select distinct s\_id from spj where cost = (select max(cost) from spj));

