**Practical No:02-OLAP**

Q1. Create tables Employee and Department as per the given schema and insert data into them.

dept(deptno number(2,0),dname  varchar2(14),loc    varchar2(13),constraint pk\_dept primary key (deptno));

emp(empno    number(4,0),ename varchar2(10), job varchar2(9), mgr  number(4,0),hiredate date,sal number(7,2),comm number(7,2),deptno number(2,0), constraint pk\_emp primary key (empno),constraint fk\_deptno foreign key (deptno) references dept (deptno));

--> create table dept(

deptno number(2,0),

dname varchar2(14),

loc varchar2(13),

constraint pk\_dept primary key (deptno)

);

create table emp(

empno number(4,0),

ename varchar2(10),

job varchar2(9),

mgr number(4,0),

hiredate date,

sal number(7,2),

comm number(7,2),

deptno number(2,0),

constraint pk\_emp primary key (empno),

constraint fk\_deptno foreign key (deptno) references dept (deptno)

);

insert into dept values(10, 'ACCOUNTING', 'NEW YORK');

insert into dept values(20, 'RESEARCH', 'DALLAS');

insert into dept values(30, 'SALES', 'CHICAGO');

insert into dept values(40, 'OPERATIONS', 'BOSTON');

insert into emp values( 7839, 'KING', 'PRESIDENT', null, to\_date('17-11-1981','dd-mm-yyyy'), 5000, null, 10

);

insert into emp values( 7698, 'BLAKE', 'MANAGER', 7839, to\_date('1-5-1981','dd-mm-yyyy'), 2850, null, 30

);

insert into emp values( 7782, 'CLARK', 'MANAGER', 7839, to\_date('9-6-1981','dd-mm-yyyy'), 2450, null, 10

);

insert into emp values( 7566, 'JONES', 'MANAGER', 7839, to\_date('2-4-1981','dd-mm-yyyy'), 2975, null, 20

);

insert into emp values( 7788, 'SCOTT', 'ANALYST', 7566, to\_date('13-JUL-87','dd-mm-yyyy'), 3000, null, 20

);

insert into emp values( 7902, 'FORD', 'ANALYST', 7566, to\_date('3-12-1981','dd-mm-yyyy'), 3000, null, 20

);

insert into emp values( 7369, 'SMITH', 'CLERK', 7902, to\_date('17-12-1980','dd-mm-yyyy'), 800, null, 20

);

insert into emp values( 7499, 'ALLEN', 'SALESMAN', 7698, to\_date('20-2-1981','dd-mm-yyyy'), 1600, 300, 30

);

insert into emp values( 7521, 'WARD', 'SALESMAN', 7698, to\_date('22-2-1981','dd-mm-yyyy'), 1250, 500, 30

);

insert into emp values( 7654, 'MARTIN', 'SALESMAN', 7698, to\_date('28-9-1981','dd-mm-yyyy'), 1250, 1400, 30

);

insert into emp values( 7844, 'TURNER', 'SALESMAN', 7698, to\_date('8-9-1981','dd-mm-yyyy'), 1500, 0, 30

);

insert into emp values( 7876, 'ADAMS', 'CLERK', 7788, to\_date('13-JUL-87', 'dd-mm-yyyy'), 1100, null, 20

);

insert into emp values( 7900, 'JAMES', 'CLERK', 7698, to\_date('3-12-1981','dd-mm-yyyy'), 950, null, 30

);

insert into emp values( 7934, 'MILLER', 'CLERK', 7782, to\_date('23-1-1982','dd-mm-yyyy'), 1300, null, 10

);

**Execute the following queries.**

Create a table employee with attribute empid, name, deptid,deptname, salary and joining date.

Write the queries -

1. To return the first salary reported in each department.

--> select ename,sal,deptno, first\_value(sal) ignore nulls over (PARTITION BY deptno order by sal) as First\_salary from emp

Output

|  |  |  |  |
| --- | --- | --- | --- |
| **ENAME** | **SAL** | **DEPTNO** | **FIRST\_SALARY** |
| MILLER | 1300 | 10 | 1300 |
| CLARK | 2450 | 10 | 1300 |
| KING | 5000 | 10 | 1300 |
| SMITH | 800 | 20 | 800 |
| ADAMS | 1100 | 20 | 800 |
| JONES | 2975 | 20 | 800 |
| SCOTT | 3000 | 20 | 800 |
| FORD | 3000 | 20 | 800 |
| JAMES | 950 | 30 | 950 |
| MARTIN | 1250 | 30 | 950 |
| WARD | 1250 | 30 | 950 |
| TURNER | 1500 | 30 | 950 |
| ALLEN | 1600 | 30 | 950 |
| BLAKE | 2850 | 30 | 950 |

2. To show us how the average salary has changed over the years

--> SELECT ename,job,hiredate,sal,avg(sal)

OVER (ORDER BY hiredate) AS running\_avg

FROM emp ORDER BY hiredate;

Output

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ENAME** | **JOB** | **HIREDATE** | **SAL** | **RUNNING\_AVG** |
| ADAMS | CLERK | 13-JUL-87 | 1100 | 2050 |
| SCOTT | ANALYST | 13-JUL-87 | 3000 | 2050 |
| SMITH | CLERK | 17-DEC-80 | 800 | 1633.333333333333333333333333333333333333 |
| ALLEN | SALESMAN | 20-FEB-81 | 1600 | 1625 |
| WARD | SALESMAN | 22-FEB-81 | 1250 | 1550 |
| JONES | MANAGER | 02-APR-81 | 2975 | 1787.5 |
| BLAKE | MANAGER | 01-MAY-81 | 2850 | 1939.285714285714285714285714285714285714 |
| CLARK | MANAGER | 09-JUN-81 | 2450 | 2003.125 |
| TURNER | SALESMAN | 08-SEP-81 | 1500 | 1947.222222222222222222222222222222222222 |
| MARTIN | SALESMAN | 28-SEP-81 | 1250 | 1877.5 |
| KING | PRESIDENT | 17-NOV-81 | 5000 | 2161.363636363636363636363636363636363636 |
| FORD | ANALYST | 03-DEC-81 | 3000 | 2132.692307692307692307692307692307692308 |
| JAMES | CLERK | 03-DEC-81 | 950 | 2132.692307692307692307692307692307692308 |
| MILLER | CLERK | 23-JAN-82 | 1300 | 2073.214285714285714285714285714285714286 |

3.To display the salary of each employee, along with the lowest and highest within their department

--> select empno, deptno, sal,

MIN(sal) KEEP (DENSE\_RANK FIRST ORDER BY sal) OVER (PARTITION BY deptno) AS lowest,

MAX(sal) KEEP (DENSE\_RANK LAST ORDER BY sal) OVER (PARTITION BY deptno) AS highest

FROM emp

ORDER BY deptno, sal;

**Output**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EMPNO** | **DEPTNO** | **SAL** | **LOWEST** | **HIGHEST** |
| 7934 | 10 | 1300 | 1300 | 5000 |
| 7782 | 10 | 2450 | 1300 | 5000 |
| 7839 | 10 | 5000 | 1300 | 5000 |
| 7369 | 20 | 800 | 800 | 3000 |
| 7876 | 20 | 1100 | 800 | 3000 |
| 7566 | 20 | 2975 | 800 | 3000 |
| 7788 | 20 | 3000 | 800 | 3000 |
| 7902 | 20 | 3000 | 800 | 3000 |
| 7900 | 30 | 950 | 950 | 2850 |
| 7654 | 30 | 1250 | 950 | 2850 |
| 7521 | 30 | 1250 | 950 | 2850 |
| 7844 | 30 | 1500 | 950 | 2850 |
| 7499 | 30 | 1600 | 950 | 2850 |
| 7698 | 30 | 2850 | 950 | 2850 |

4. To divide the whole result set into five buckets based on salary

--> SELECT empno, ename, deptno, sal,

NTILE(5) OVER (ORDER BY sal) AS bucket\_no

FROM emp;

**Output**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EMPNO** | **ENAME** | **DEPTNO** | **SAL** | **BUCKET\_NO** |
| 7369 | SMITH | 20 | 800 | 1 |
| 7900 | JAMES | 30 | 950 | 1 |
| 7876 | ADAMS | 20 | 1100 | 1 |
| 7654 | MARTIN | 30 | 1250 | 2 |
| 7521 | WARD | 30 | 1250 | 2 |
| 7934 | MILLER | 10 | 1300 | 2 |
| 7844 | TURNER | 30 | 1500 | 3 |
| 7499 | ALLEN | 30 | 1600 | 3 |
| 7782 | CLARK | 10 | 2450 | 3 |
| 7698 | BLAKE | 30 | 2850 | 4 |
| 7566 | JONES | 20 | 2975 | 4 |
| 7902 | FORD | 20 | 3000 | 4 |
| 7788 | SCOTT | 20 | 3000 | 5 |
| 7839 | KING | 10 | 5000 | 5 |

5. To display for each employee in Department 30 in the employees table, the hire date of the employee hired just after

--> SELECT ename, hiredate, LEAD(hiredate, 1) OVER (ORDER BY hiredate) AS "Next Hired" FROM emp WHERE deptno = 30 ORDER BY hiredate;

**Output**

|  |  |  |
| --- | --- | --- |
| **ENAME** | **HIREDATE** | **Next Hired** |
| ALLEN | 20-FEB-81 | 22-FEB-81 |
| WARD | 22-FEB-81 | 01-MAY-81 |
| BLAKE | 01-MAY-81 | 08-SEP-81 |
| TURNER | 08-SEP-81 | 28-SEP-81 |
| MARTIN | 28-SEP-81 | 03-DEC-81 |
| JAMES | 03-DEC-81 | - |

**2. Create the table Sales and insert records as given. Write analytical queries -->**

create table sales(year number(20),country varchar(50),product varchar(50),profit number(20));

insert into sales values(2000,'Finland','Computer','1500');

insert into sales values(2000,'Finland','Phone','100');

insert into sales values(2001,'Finland','Phone','10');

insert into sales values(2000,'India','Calculator','75');

insert into sales values(2000,'India','Calculator','75');

insert into sales values(2000,'India','Computer','1200');

insert into sales values(2000,'USA','Calculator','75');

insert into sales values(2000,'USA','Computer','1500');

insert into sales values(2001,'USA','Calculator','50');

insert into sales values(2001,'USA','Computer','1500');

insert into sales values(2001,'USA','Computer','1200');

insert into sales values(2001,'USA','TV','150');

insert into sales values(2001,'USA','TV','100');

**Output**

|  |  |  |  |
| --- | --- | --- | --- |
| **YEAR** | **COUNTRY** | **PRODUCT** | **PROFIT** |
| 2000 | Finland | Computer | 1500 |
| 2000 | Finland | Phone | 100 |
| 2001 | Finland | Phone | 10 |
| 2000 | India | Calculator | 75 |
| 2000 | India | Calculator | 75 |
| 2000 | India | Computer | 1200 |
| 2000 | USA | Calculator | 75 |
| 2000 | USA | Computer | 1500 |
| 2001 | USA | Calculator | 50 |
| 2001 | USA | Computer | 1500 |
| 2001 | USA | Computer | 1200 |
| 2001 | USA | TV | 150 |
| 2001 | USA | TV | 100 |

1.To find total profit for each country.

**-->** SELECT country, sum(profit) OVER (Partition BY country) AS Profit

FROM sales ;

**Output**

|  |  |
| --- | --- |
| **COUNTRY** | **PROFIT** |
| Finland | 1610 |
| Finland | 1610 |
| Finland | 1610 |
| India | 1350 |
| India | 1350 |
| India | 1350 |
| USA | 4575 |
| USA | 4575 |
| USA | 4575 |
| USA | 4575 |
| USA | 4575 |
| USA | 4575 |
| USA | 4575 |

2. Display Country with maximum profit.

--> select country,max(profit) as Max\_profit from sales group by country

Output

|  |  |
| --- | --- |
| **Country** | **Max\_profit** |
| Finland | 1500 |
| India | 1200 |
| USA | 1500 |

3. Display products with maximum and minimum profit in each country.

--> select product, max(profit) over(partition by country) as Max\_profit,

min(profit) over(partition by country) as Min\_profit from sales;

output

|  |  |  |
| --- | --- | --- |
| **PRODUCT** | **MAX\_PROFIT** | **MIN\_PROFIT** |
| Phone | 1500 | 10 |
| Phone | 1500 | 10 |
| Computer | 1500 | 10 |
| Computer | 1200 | 75 |
| Calculator | 1200 | 75 |
| Calculator | 1200 | 75 |
| TV | 1500 | 50 |
| Computer | 1500 | 50 |
| Computer | 1500 | 50 |
| Calculator | 1500 | 50 |
| Computer | 1500 | 50 |
| TV | 1500 | 50 |
| Calculator | 1500 | 50 |

4. Display average sale of each product in each country.

--> SELECT country, product, AVG(profit) AS average\_profit FROM Sale GROUP BY country, product;

|  |  |  |
| --- | --- | --- |
| **COUNTRY** | **PRODUCT** | **AVERAGE\_PROFIT** |
| Finland | Phone | 55 |
| India | Computer | 1200 |
| India | Calculator | 75 |
| USA | TV | 125 |
| USA | Computer | 1400 |
| Finland | Computer | 1500 |
| USA | Calculator | 62.5 |

5. Find total profit product wise.

--> select product,profit,sum(profit) over (partition by product) as Profit from sales;

Output

|  |  |  |
| --- | --- | --- |
| **PRODUCT** | **PROFIT** | **PROFIT** |
| Calculator | 75 | 275 |
| Calculator | 50 | 275 |
| Calculator | 75 | 275 |
| Calculator | 75 | 275 |
| Computer | 1200 | 6900 |
| Computer | 1200 | 6900 |
| Computer | 1500 | 6900 |
| Computer | 1500 | 6900 |
| Computer | 1500 | 6900 |
| Phone | 100 | 110 |
| Phone | 10 | 110 |
| TV | 100 | 250 |
| TV | 150 | 250 |

**3. The research is about to create the star schema for the sales system. The research consists of all the information related to the sale’s record like items, location and the time etc. Create a schema (database) with fact and dimension tables. Perform the OLAP operations on your schema.**

• Suppose we want to record in a warehouse information about every Item sale, e.g.:

– Product number,

– location from where the product was sold,

– date of the sale, and

– Units sold.

• The fact table is thus:

Sales(item\_key, loc\_key, time\_key, units)

• The dimension tables include information about the Items, Location, and time

“dimensions”:

Loc(loc\_key, city,state,country)

items(item\_key,item\_name, item\_category, color,price)

Time(time\_key,sdate,week,month,quarter,syear),

**-->**

CREATE TABLE loc(loc\_key INT NOT NULL PRIMARY KEY,city varchar(30),state varchar(30),country varchar(30));

CREATE TABLE items(item\_key INT NOT NULL PRIMARY KEY,item\_name varchar(30),item\_category varchar(30),color varchar(30),price INT);

CREATE TABLE Stime (time\_key DATE NOT NULL PRIMARY KEY, sdate date,week varchar(30),smonth varchar(30),quarter varchar(30),syear int);

CREATE TABLE salesfact(loc\_key INT,

item\_key int,time\_key date,units\_sold int,

FOREIGN KEY(loc\_key) REFERENCES loc(loc\_key),

FOREIGN KEY(item\_key) REFERENCES items(item\_key),

FOREIGN KEY(time\_key) REFERENCES Stime(time\_key));

INSERT INTO loc VALUES(1,'Southlake','Texas','US');

INSERT INTO loc VALUES(2,'Houston','Texas','US');

INSERT INTO loc VALUES(3,'Chennai','Maharashtra','India');

INSERT INTO loc VALUES(4,'Mumbai','Maharashtra','US');

INSERT INTO loc VALUES(5,'Algoma','Ontario','Canada');

INSERT INTO loc VALUES(6,'Bemont','Ontario','Canada');

INSERT INTO loc VALUES(7,'Devon','Alberta','Canada');

INSERT INTO loc VALUES(8,'Fairview','Alberta','Canada');

INSERT INTO loc VALUES(9,'Ratnagiri','Maharashtra','India');

INSERT INTO loc VALUES(10,'Nashik','Maharashtra','India');

INSERT INTO loc VALUES(11,'Cochin','Kerala','India');

INSERT INTO loc VALUES(12,'Adur','Kerala','India');

INSERT INTO loc VALUES(13,'Brisbane','Queensland','Australia');

INSERT INTO loc VALUES(14,'Sydney','NewSouthWales','Australia');

insert into items values(1101,'Parker','Pen','black',1000);

insert into items values(1102,'Parker','Pen','blue',1500);

insert into items values(1103,'CanonEOS1500','Camera','black',45000);

insert into items values(1104,'Powershot','Camera','black',35000);

insert into items values(1105,'BoatRockerz255','Headphone','black',4000);

insert into items values(1106,'PTron','Headphone','blue',5000);

insert into items values(1107,'Basshead225','Headphone','red',2000);

insert into items values(1108,'JBLC100S1','Headphone','black',7000);

insert into items values(1109,'realme Buds2','Headphone','black',5500);

insert into items values(1110,'Sony SA D40','HomeAudio','black',5000);

insert into items values(1111,'Infinity JBL','HomeAudio','black',10000);

insert into items values(1112,'Philips Audio','HomeAudio','black',9000);

insert into items values(1113,'Rugged','Jeans','black',1500);

insert into items values(1114,'OneLap India GPS','GPS','black',4500);

insert into items values(1115,'Drivool','GPS','black',3000);

insert into items values(1116,'OneLap GO','GPS','black',4000);

insert into items values(1117,'SmartKey Finder','GPS','black',4500);

insert into items values(1118,'OneLap Micro','GPS','black',2000);

insert into items values(1119,'Samsung Galaxy 21','Tablet','black',15000);

insert into items values(1120,'Lenovo Tab 10','Tablet','black',11000);

insert into items values(1121,'Apple iPad','Tablet','black',8500);

insert into items values(1122,'YogaSmart','Tablet','black',18000);

insert into items values(1123,'Panasonic','Tablet','black',10000);

Insert into Stime(time\_key,sdate,week,smonth,quarter,syear)

select TIME\_ID,TIME\_ID,CALENDAR\_WEEK\_NUMBER,CALENDAR\_MONTH\_NUMBER,CALENDAR\_QUARTER\_NUMBER,CALENDAR\_YEAR from SH.TIMES;

insert into salesfact values(2,1101,'02-Jan-98',10);

insert into salesfact values(3,1102,'03-Jan-98',20);

insert into salesfact values(4,1103,'04-Jan-98',20);

insert into salesfact values(5,1104,'05-Jan-98',30);

insert into salesfact values(6,1105,'06-Jan-98',30);

insert into salesfact values(7,1106,'07-Jan-98',40);

insert into salesfact values(7,1111,'11-Dec-98',20);

insert into salesfact values(8,1112,'12-Dec-98',20);

insert into salesfact values(9,1113,'13-Dec-98',20);

insert into salesfact values(10,1114,'14-Dec-98',20);

insert into salesfact values(8,1107,'08-Jan-98',15);

insert into salesfact values(9,1108,'09-Jan-98',16);

insert into salesfact values(10,1102,'10-Jan-98',17);

insert into salesfact values(1,1103,'11-Jan-98',18);

insert into salesfact values(1,1104,'12-Jan-98',11);

insert into salesfact values(2,1105,'13-Jan-98',15);

insert into salesfact values(2,1106,'14-Jan-98',19);

insert into salesfact values(3,1107,'15-Jan-98',20);

insert into salesfact values(4,1108,'16-Jan-98',5);

insert into salesfact values(1,1101,'11-Feb-98',10);

insert into salesfact values(1,1101,'12-Feb-98',20);

insert into salesfact values(1,1101,'13-Feb-98',30);

insert into salesfact values(10,1102,'14-Feb-98',40);

insert into salesfact values(10,1102,'15-Feb-98',40);

insert into salesfact values(2,1103,'16-Feb-98',10);

insert into salesfact values(2,1103,'17-Feb-98',10);

insert into salesfact values(3,1104,'18-Feb-98',15);

insert into salesfact values(3,1104,'19-Feb-98',12);

insert into salesfact values(4,1105,'20-Feb-98',13);

insert into salesfact values(5,1105,'21-Feb-98',15);

insert into salesfact values(6,1106,'22-Feb-98',14);

insert into salesfact values(7,1111,'23-Feb-98',18);

insert into salesfact values(8,1112,'24-Feb-98',12);

insert into salesfact values(9,1113,'25-Feb-98',11);

insert into salesfact values(10,1114,'26-Feb-98',10);

insert into salesfact values(10,1115,'01-Mar-98',20);

insert into salesfact values(1,1115,'02-Mar-98',11);

insert into salesfact values(2,1116,'03-Mar-98',20);

insert into salesfact values(3,1116,'04-Mar-98',30);

insert into salesfact values(4,1117,'05-Mar-98',10);

insert into salesfact values(5,1117,'06-Mar-98',20);

insert into salesfact values(6,1118,'07-Mar-98',20);

insert into salesfact values(7,1118,'08-Mar-98',20);

insert into salesfact values(8,1119,'09-Mar-98',20);

insert into salesfact values(9,1119,'10-Mar-98',20);

insert into salesfact values(10,1120,'11-Mar-98',20);

insert into salesfact values(2,1121,'12-Mar-98',20);

insert into salesfact values(3,1121,'13-Mar-98',20);

insert into salesfact values(4,1101,'14-Mar-98',20);

insert into salesfact values(5,1102,'15-Mar-98',20);

insert into salesfact values(1,1103,'16-Mar-98',20);

insert into salesfact values(2,1104,'17-Apr-98',20);

insert into salesfact values(3,1105,'18-Apr-98',20);

insert into salesfact values(4,1106,'19-Apr-98',20);

insert into salesfact values(5,1107,'20-Apr-98',20);

insert into salesfact values(6,1108,'21-Apr-98',20);

insert into salesfact values(7,1109,'22-Apr-98',20);

insert into salesfact values(8,1110,'23-Apr-98',20);

insert into salesfact values(9,1104,'24-Apr-98',20);

insert into salesfact values(10,1105,'25-Apr-98',20);

insert into salesfact values(1,1112,'26-Apr-98',20);

insert into salesfact values(2,1113,'27-Apr-98',20);

insert into salesfact values(2,1114,'28-Apr-98',20);

insert into salesfact values(3,1123,'29-Apr-98',20);

insert into salesfact values(4,1122,'30-Apr-98',20);

insert into salesfact values(1,1101,'01-May-98',20);

insert into salesfact values(2,1102,'02-May-98',20);

insert into salesfact values(2,1102,'03-May-98',20);

insert into salesfact values(3,1103,'04-May-98',20);

insert into salesfact values(4,1103,'05-May-98',20);

insert into salesfact values(5,1104,'06-May-98',20);

insert into salesfact values(6,1104,'07-May-98',20);

insert into salesfact values(7,1105,'08-May-98',20);

insert into salesfact values(8,1105,'09-May-98',20);

insert into salesfact values(9,1106,'10-May-98',20);

insert into salesfact values(10,1106,'11-May-98',20);

insert into salesfact values(9,1107,'12-May-98',20);

insert into salesfact values(8,1107,'13-May-98',20);

insert into salesfact values(7,1108,'14-May-98',20);

insert into salesfact values(6,1108,'15-May-98',20);

insert into salesfact values(5,1109,'16-May-98',20);

insert into salesfact values(1,1109,'17-Jun-98',20);

insert into salesfact values(2,1110,'18-Jun-98',20);

insert into salesfact values(3,1111,'19-Jun-98',20);

insert into salesfact values(5,1112,'20-Jun-98',20);

insert into salesfact values(4,1113,'21-Jun-98',20);

insert into salesfact values(6,1114,'22-Jun-98',20);

insert into salesfact values(7,1115,'23-Jun-98',20);

insert into salesfact values(8,1116,'24-Jun-98',20);

insert into salesfact values(9,1117,'25-Jun-98',20);

insert into salesfact values(10,1101,'26-Jun-98',20);

insert into salesfact values(10,1102,'27-Jun-98',20);

insert into salesfact values(6,1103,'28-Jun-98',20);

insert into salesfact values(7,1104,'29-Jun-98',20);

insert into salesfact values(8,1105,'30-Jun-98',20);

insert into salesfact values(1,1106,'07-Jul-98',20);

insert into salesfact values(2,1107,'08-Jul-98',20);

insert into salesfact values(3,1101,'09-Jul-98',20);

insert into salesfact values(4,1102,'10-Jul-98',20);

insert into salesfact values(5,1103,'11-Jul-98',20);

insert into salesfact values(6,1104,'12-Jul-98',20);

insert into salesfact values(7,1105,'13-Jul-98',20);

insert into salesfact values(8,1106,'14-Jul-98',20);

insert into salesfact values(9,1107,'15-Jul-98',20);

insert into salesfact values(10,1117,'16-Jul-98',20);

insert into salesfact values(1,1118,'17-Jul-98',20);

insert into salesfact values(2,1119,'18-Jul-98',20);

insert into salesfact values(3,1120,'01-Aug-98',20);

insert into salesfact values(4,1121,'02-Aug-98',20);

insert into salesfact values(5,1101,'03-Aug-98',20);

insert into salesfact values(6,1102,'04-Aug-98',20);

insert into salesfact values(7,1103,'05-Aug-98',20);

insert into salesfact values(8,1104,'06-Aug-98',20);

insert into salesfact values(9,1105,'07-Aug-98',20);

insert into salesfact values(10,1106,'08-Aug-98',20);

insert into salesfact values(1,1107,'09-Aug-98',20);

insert into salesfact values(2,1108,'10-Aug-98',20);

insert into salesfact values(3,1109,'11-Aug-98',20);

insert into salesfact values(10,1110,'12-Aug-98',20);

insert into salesfact values(4,1111,'13-Aug-98',20);

insert into salesfact values(5,1112,'14-Aug-98',20);

insert into salesfact values(6,1113,'15-Aug-98',20);

insert into salesfact values(7,1114,'16-Aug-98',20);

insert into salesfact values(1,1115,'01-Sep-98',20);

insert into salesfact values(2,1116,'02-Sep-98',20);

insert into salesfact values(3,1117,'03-Sep-98',20);

insert into salesfact values(4,1118,'04-Sep-98',20);

insert into salesfact values(5,1119,'05-Sep-98',20);

insert into salesfact values(6,1120,'06-Sep-98',20);

insert into salesfact values(7,1121,'07-Sep-98',20);

insert into salesfact values(8,1122,'08-Sep-98',20);

insert into salesfact values(9,1101,'09-Sep-98',20);

insert into salesfact values(10,1102,'10-Sep-98',20);

insert into salesfact values(1,1103,'11-Sep-98',20);

insert into salesfact values(2,1104,'12-Sep-98',20);

insert into salesfact values(2,1105,'13-Sep-98',20);

insert into salesfact values(3,1106,'14-Sep-98',20);

insert into salesfact values(4,1107,'15-Oct-98',20);

insert into salesfact values(5,1108,'16-Oct-98',20);

insert into salesfact values(6,1109,'17-Oct-98',20);

insert into salesfact values(7,1110,'18-Oct-98',20);

insert into salesfact values(8,1111,'19-Oct-98',20);

insert into salesfact values(9,1101,'20-Oct-98',20);

insert into salesfact values(10,1102,'21-Oct-98',20);

insert into salesfact values(1,1103,'22-Oct-98',20);

insert into salesfact values(2,1104,'23-Oct-98',20);

insert into salesfact values(3,1105,'24-Oct-98',20);

insert into salesfact values(4,1101,'15-Nov-98',20);

insert into salesfact values(5,1102,'16-Nov-98',20);

insert into salesfact values(6,1103,'17-Nov-98',20);

insert into salesfact values(7,1104,'18-Nov-98',20);

insert into salesfact values(8,1105,'19-Nov-98',20);

insert into salesfact values(9,1106,'20-Nov-98',20);

insert into salesfact values(10,1107,'21-Nov-98',20);

insert into salesfact values(1,1114,'22-Nov-98',20);

insert into salesfact values(2,1115,'23-Nov-98',20);

insert into salesfact values(3,1116,'24-Nov-98',20);

insert into salesfact values(4,1117,'25-Nov-98',20);

insert into salesfact values(5,1118,'26-Nov-98',20);

insert into salesfact values(6,1101,'01-Dec-98',20);

insert into salesfact values(7,1102,'02-Dec-98',20);

insert into salesfact values(8,1103,'03-Dec-98',20);

insert into salesfact values(9,1104,'04-Dec-98',20);

insert into salesfact values(1,1105,'05-Dec-98',20);

insert into salesfact values(2,1106,'06-Dec-98',20);

insert into salesfact values(3,1107,'07-Dec-98',20);

insert into salesfact values(4,1108,'08-Dec-98',20);

insert into salesfact values(5,1109,'09-Dec-98',20);

insert into salesfact values(6,1110,'10-Dec-98',20);

insert into salesfact values(1,1101,'01-Jan-98',10);

insert into salesfact values(1,1101,'01-Jan-99',10);

insert into salesfact values(2,1101,'02-Jan-99',10);

insert into salesfact values(3,1102,'03-Jan-99',20);

insert into salesfact values(4,1103,'04-Jan-99',20);

insert into salesfact values(5,1104,'05-Jan-99',30);

insert into salesfact values(6,1105,'06-Jan-99',30);

insert into salesfact values(7,1106,'07-Jan-99',40);

insert into salesfact values(8,1107,'08-Jan-99',15);

insert into salesfact values(9,1108,'09-Jan-99',16);

insert into salesfact values(10,1102,'10-Jan-99',17);

insert into salesfact values(1,1103,'11-Jan-99',18);

insert into salesfact values(1,1104,'12-Jan-99',11);

insert into salesfact values(2,1105,'13-Jan-99',15);

insert into salesfact values(2,1106,'14-Jan-99',19);

insert into salesfact values(3,1107,'15-Jan-99',20);

insert into salesfact values(4,1108,'16-Jan-99',5);

insert into salesfact values(1,1101,'11-Feb-99',10);

insert into salesfact values(1,1101,'12-Feb-99',20);

insert into salesfact values(1,1101,'13-Feb-99',30);

insert into salesfact values(10,1102,'14-Feb-99',40);

insert into salesfact values(10,1102,'15-Feb-99',40);

insert into salesfact values(2,1103,'16-Feb-99',10);

insert into salesfact values(2,1103,'17-Feb-99',10);

insert into salesfact values(3,1104,'18-Feb-99',15);

insert into salesfact values(3,1104,'19-Feb-99',12);

insert into salesfact values(4,1105,'20-Feb-99',13);

insert into salesfact values(5,1105,'21-Feb-99',15);

insert into salesfact values(6,1106,'22-Feb-99',14);

insert into salesfact values(7,1111,'23-Feb-99',18);

insert into salesfact values(8,1112,'24-Feb-99',12);

insert into salesfact values(9,1113,'25-Feb-99',11);

insert into salesfact values(10,1114,'26-Feb-99',10);

insert into salesfact values(10,1115,'01-Mar-99',20);

insert into salesfact values(1,1115,'02-Mar-99',11);

insert into salesfact values(2,1116,'03-Mar-99',20);

insert into salesfact values(3,1116,'04-Mar-99',30);

insert into salesfact values(4,1117,'05-Mar-99',10);

insert into salesfact values(5,1117,'06-Mar-99',20);

insert into salesfact values(6,1118,'07-Mar-99',20);

insert into salesfact values(7,1118,'08-Mar-99',20);

insert into salesfact values(8,1119,'09-Mar-99',20);

insert into salesfact values(9,1119,'10-Mar-99',20);

insert into salesfact values(10,1120,'11-Mar-99',20);

insert into salesfact values(2,1121,'12-Mar-99',20);

insert into salesfact values(3,1121,'13-Mar-99',20);

insert into salesfact values(4,1101,'14-Mar-99',20);

insert into salesfact values(5,1102,'15-Mar-99',20);

insert into salesfact values(1,1103,'16-Mar-99',20);

insert into salesfact values(2,1104,'17-Apr-99',20);

insert into salesfact values(3,1105,'18-Apr-99',20);

insert into salesfact values(4,1106,'19-Apr-99',20);

insert into salesfact values(5,1107,'20-Apr-99',20);

insert into salesfact values(6,1108,'21-Apr-99',20);

insert into salesfact values(7,1109,'22-Apr-99',20);

insert into salesfact values(8,1110,'23-Apr-99',20);

insert into salesfact values(9,1104,'24-Apr-99',20);

insert into salesfact values(10,1105,'25-Apr-99',20);

insert into salesfact values(1,1112,'26-Apr-99',20);

insert into salesfact values(2,1113,'27-Apr-99',20);

insert into salesfact values(2,1114,'28-Apr-99',20);

insert into salesfact values(3,1123,'29-Apr-99',20);

insert into salesfact values(4,1122,'30-Apr-99',20);

insert into salesfact values(1,1101,'01-May-99',20);

insert into salesfact values(2,1102,'02-May-99',20);

insert into salesfact values(2,1102,'03-May-99',20);

insert into salesfact values(3,1103,'04-May-99',20);

insert into salesfact values(4,1103,'05-May-99',20);

insert into salesfact values(5,1104,'06-May-99',20);

insert into salesfact values(6,1104,'07-May-99',20);

insert into salesfact values(7,1105,'08-May-99',20);

insert into salesfact values(8,1105,'09-May-99',20);

insert into salesfact values(9,1106,'10-May-99',20);

insert into salesfact values(10,1106,'11-May-99',20);

insert into salesfact values(9,1107,'12-May-99',20);

insert into salesfact values(8,1107,'13-May-99',20);

insert into salesfact values(7,1108,'14-May-99',20);

insert into salesfact values(6,1108,'15-May-99',20);

insert into salesfact values(5,1109,'16-May-99',20);

insert into salesfact values(1,1109,'17-Jun-99',20);

insert into salesfact values(2,1110,'18-Jun-99',20);

insert into salesfact values(3,1111,'19-Jun-99',20);

insert into salesfact values(5,1112,'20-Jun-99',20);

insert into salesfact values(4,1113,'21-Jun-99',20);

insert into salesfact values(6,1114,'22-Jun-99',20);

insert into salesfact values(7,1115,'23-Jun-99',20);

insert into salesfact values(8,1116,'24-Jun-99',20);

insert into salesfact values(9,1117,'25-Jun-99',20);

insert into salesfact values(10,1101,'26-Jun-99',20);

insert into salesfact values(10,1102,'27-Jun-99',20);

insert into salesfact values(6,1103,'28-Jun-99',20);

insert into salesfact values(7,1104,'29-Jun-99',20);

insert into salesfact values(8,1105,'30-Jun-99',20);

insert into salesfact values(1,1106,'07-Jul-99',20);

insert into salesfact values(2,1107,'08-Jul-99',20);

insert into salesfact values(3,1101,'09-Jul-99',20);

insert into salesfact values(4,1102,'10-Jul-99',20);

insert into salesfact values(5,1103,'11-Jul-99',20);

insert into salesfact values(6,1104,'12-Jul-99',20);

insert into salesfact values(7,1105,'13-Jul-99',20);

insert into salesfact values(8,1106,'14-Jul-99',20);

insert into salesfact values(9,1107,'15-Jul-99',20);

insert into salesfact values(10,1117,'16-Jul-99',20);

insert into salesfact values(1,1118,'17-Jul-99',20);

insert into salesfact values(2,1119,'18-Jul-99',20);

insert into salesfact values(3,1120,'01-Aug-99',20);

insert into salesfact values(4,1121,'02-Aug-99',20);

insert into salesfact values(5,1101,'03-Aug-99',20);

insert into salesfact values(6,1102,'04-Aug-99',20);

insert into salesfact values(7,1103,'05-Aug-99',20);

insert into salesfact values(8,1104,'06-Aug-99',20);

insert into salesfact values(9,1105,'07-Aug-99',20);

insert into salesfact values(10,1106,'08-Aug-99',20);

insert into salesfact values(1,1107,'09-Aug-99',20);

insert into salesfact values(2,1108,'10-Aug-99',20);

insert into salesfact values(3,1109,'11-Aug-99',20);

insert into salesfact values(10,1110,'12-Aug-99',20);

insert into salesfact values(4,1111,'13-Aug-99',20);

insert into salesfact values(5,1112,'14-Aug-99',20);

insert into salesfact values(6,1113,'15-Aug-99',20);

insert into salesfact values(7,1114,'16-Aug-99',20);

insert into salesfact values(1,1115,'01-Sep-99',20);

insert into salesfact values(2,1116,'02-Sep-99',20);

insert into salesfact values(3,1117,'03-Sep-99',20);

insert into salesfact values(4,1118,'04-Sep-99',20);

insert into salesfact values(5,1119,'05-Sep-99',20);

insert into salesfact values(6,1120,'06-Sep-99',20);

insert into salesfact values(7,1121,'07-Sep-99',20);

insert into salesfact values(8,1122,'08-Sep-99',20);

insert into salesfact values(9,1101,'09-Sep-99',20);

insert into salesfact values(10,1102,'10-Sep-99',20);

insert into salesfact values(1,1103,'11-Sep-99',20);

insert into salesfact values(2,1104,'12-Sep-99',20);

insert into salesfact values(2,1105,'13-Sep-99',20);

insert into salesfact values(3,1106,'14-Sep-99',20);

insert into salesfact values(4,1107,'15-Oct-99',20);

insert into salesfact values(5,1108,'16-Oct-99',20);

insert into salesfact values(6,1109,'17-Oct-99',20);

insert into salesfact values(7,1110,'18-Oct-99',20);

insert into salesfact values(8,1111,'19-Oct-99',20);

insert into salesfact values(9,1101,'20-Oct-99',20);

insert into salesfact values(10,1102,'21-Oct-99',20);

insert into salesfact values(1,1103,'22-Oct-99',20);

insert into salesfact values(2,1104,'23-Oct-99',20);

insert into salesfact values(3,1105,'24-Oct-99',20);

insert into salesfact values(4,1101,'15-Nov-99',20);

insert into salesfact values(5,1102,'16-Nov-99',20);

insert into salesfact values(6,1103,'17-Nov-99',20);

insert into salesfact values(7,1104,'18-Nov-99',20);

insert into salesfact values(8,1105,'19-Nov-99',20);

insert into salesfact values(9,1106,'20-Nov-99',20);

insert into salesfact values(10,1107,'21-Nov-99',20);

insert into salesfact values(1,1114,'22-Nov-99',20);

insert into salesfact values(2,1115,'23-Nov-99',20);

insert into salesfact values(3,1116,'24-Nov-99',20);

insert into salesfact values(4,1117,'25-Nov-99',20);

insert into salesfact values(5,1118,'26-Nov-99',20);

insert into salesfact values(6,1101,'01-Dec-99',20);

insert into salesfact values(7,1102,'02-Dec-99',20);

insert into salesfact values(8,1103,'03-Dec-99',20);

insert into salesfact values(9,1104,'04-Dec-99',20);

insert into salesfact values(1,1105,'05-Dec-99',20);

insert into salesfact values(2,1106,'06-Dec-99',20);

insert into salesfact values(3,1107,'07-Dec-99',20);

insert into salesfact values(4,1108,'08-Dec-99',20);

insert into salesfact values(5,1109,'09-Dec-99',20);

insert into salesfact values(6,1110,'10-Dec-99',20);

insert into salesfact values(7,1111,'11-Dec-99',20);

insert into salesfact values(8,1112,'12-Dec-99',20);

insert into salesfact values(9,1113,'13-Dec-99',20);

insert into salesfact values(10,1114,'14-Dec-99',20);

insert into salesfact values(3,1101,'02-Apr-98',10);

insert into salesfact values(3,1102,'03-Apr-98',20);

insert into salesfact values(4,1101,'04-May-98',20);

insert into salesfact values(3,1113,'05-Jan-98',30);

insert into salesfact values(3,1113,'05-Apr-98',30);

insert into salesfact values(4,1113,'03-Jan-98',15);

1. Display data for quarter 1.

**-->**

select i.item\_name,l.city,t.quarter,s.units\_sold from salesfact s

left join items i on s.item\_key=i.item\_key

left join loc l on s.loc\_key=l.loc\_key

left join Stime t on s.time\_key=t.time\_key

where t.quarter=1;

**Output**

|  |  |  |  |
| --- | --- | --- | --- |
| **ITEM\_NAME** | **CITY** | **QUARTER** | **UNITS\_SOLD** |
| Parker | Southlake | 1 | 10 |
| Parker | Houston | 1 | 10 |
| Parker | Chennai | 1 | 20 |
| CanonEOS1500 | Mumbai | 1 | 20 |
| Powershot | Algoma | 1 | 30 |
| BoatRockerz255 | Bemont | 1 | 30 |
| PTron | Devon | 1 | 40 |
| Basshead225 | Fairview | 1 | 15 |
| JBLC100S1 | Ratnagiri | 1 | 16 |
| Parker | Nashik | 1 | 17 |
| CanonEOS1500 | Southlake | 1 | 18 |
| Powershot | Southlake | 1 | 11 |
| BoatRockerz255 | Houston | 1 | 15 |
| PTron | Houston | 1 | 19 |
| Basshead225 | Chennai | 1 | 20 |
| JBLC100S1 | Mumbai | 1 | 5 |
| Parker | Southlake | 1 | 10 |
| Parker | Southlake | 1 | 20 |
| Parker | Southlake | 1 | 30 |
| Parker | Nashik | 1 | 40 |
| Parker | Nashik | 1 | 40 |
| CanonEOS1500 | Houston | 1 | 10 |
| CanonEOS1500 | Houston | 1 | 10 |
| Powershot | Chennai | 1 | 15 |
| Powershot | Chennai | 1 | 12 |
| BoatRockerz255 | Mumbai | 1 | 13 |
| BoatRockerz255 | Algoma | 1 | 15 |
| PTron | Bemont | 1 | 14 |
| Infinity JBL | Devon | 1 | 18 |
| Philips Audio | Fairview | 1 | 12 |
| Rugged | Ratnagiri | 1 | 11 |
| OneLap India GPS | Nashik | 1 | 10 |
| Drivool | Nashik | 1 | 20 |
| Drivool | Southlake | 1 | 11 |
| OneLap GO | Houston | 1 | 20 |
| OneLap GO | Chennai | 1 | 30 |
| SmartKey Finder | Mumbai | 1 | 10 |
| SmartKey Finder | Algoma | 1 | 20 |
| OneLap Micro | Bemont | 1 | 20 |
| OneLap Micro | Devon | 1 | 20 |
| Samsung Galaxy 21 | Fairview | 1 | 20 |
| Samsung Galaxy 21 | Ratnagiri | 1 | 20 |
| Lenovo Tab 10 | Nashik | 1 | 20 |
| Apple iPad | Houston | 1 | 20 |
| Apple iPad | Chennai | 1 | 20 |
| Parker | Mumbai | 1 | 20 |
| Parker | Algoma | 1 | 20 |
| CanonEOS1500 | Southlake | 1 | 20 |
| Parker | Southlake | 1 | 10 |
| Parker | Houston | 1 | 10 |
|  |  |  |  |

2. Display total sales of pen or jeans from “mumbai&quot; or “chennai” for quarter 1 or 2.

**-->**

select i.item\_category,l.city,t.quarter,sum(s.units\_sold) from salesfact s

left join items i on s.item\_key=i.item\_key

left join loc l on s.loc\_key=l.loc\_key

left join Stime t on s.time\_key=t.time\_key

where (i.item\_category in ('Pen','Jeans') and l.city in('Chennai','Mumbai') and t.quarter in (1,2))

group by(i.item\_category,l.city,t.quarter)

order by t.quarter;

**Output**

|  |  |  |  |
| --- | --- | --- | --- |
| **ITEM\_CATEGORY** | **CITY** | **QUARTER** | **SUM(S.UNITS\_SOLD)** |
| Jeans | Chennai | 1 | 30 |
| Pen | Chennai | 1 | 40 |
| Jeans | Mumbai | 1 | 15 |
| Pen | Mumbai | 1 | 40 |
| Jeans | Chennai | 2 | 30 |
| Pen | Chennai | 2 | 30 |
| Jeans | Mumbai | 2 | 40 |
| Pen | Mumbai | 2 | 20 |

3. Find the total units sales in each state.

**-->**

select i.item\_name,l.state,sum(s.units\_sold) as

state\_sales from salesfact s

left join items i on s.item\_key=i.item\_key

left join loc l on s.loc\_key=l.loc\_key

left join Stime t on s.time\_key=t.time\_key

group by (i.item\_name,l.state);

**Output**

|  |  |  |
| --- | --- | --- |
| **ITEM\_NAME** | **STATE** | **STATE\_SALES** |
| CanonEOS1500 | Ontario | 120 |
| Parker | Alberta | 40 |
| CanonEOS1500 | Alberta | 80 |
| JBLC100S1 | Maharashtra | 82 |
| Parker | Maharashtra | 684 |
| BoatRockerz255 | Maharashtra | 186 |
| Samsung Galaxy 21 | Texas | 40 |
| JBLC100S1 | Texas | 40 |
| OneLap India GPS | Texas | 80 |
| Parker | Texas | 280 |
| PTron | Alberta | 120 |
| CanonEOS1500 | Texas | 196 |
| SmartKey Finder | Ontario | 40 |
| OneLap Micro | Alberta | 40 |
| JBLC100S1 | Ontario | 120 |
| Sony SA D40 | Alberta | 80 |
| Philips Audio | Texas | 40 |
| JBLC100S1 | Alberta | 40 |
| Parker | Ontario | 200 |
| Drivool | Texas | 102 |
| Sony SA D40 | Ontario | 40 |
| Lenovo Tab 10 | Maharashtra | 80 |
| realme Buds2 | Alberta | 40 |
| OneLap India GPS | Alberta | 40 |
| OneLap India GPS | Maharashtra | 60 |
| Basshead225 | Alberta | 70 |
| PTron | Ontario | 28 |
| Apple iPad | Texas | 40 |
| Rugged | Texas | 40 |
| Panasonic | Maharashtra | 40 |
| Philips Audio | Ontario | 80 |
| OneLap GO | Alberta | 40 |
| realme Buds2 | Maharashtra | 40 |
| Samsung Galaxy 21 | Ontario | 40 |
| SmartKey Finder | Maharashtra | 180 |
| OneLap Micro | Ontario | 80 |
| Powershot | Maharashtra | 134 |
| Rugged | Maharashtra | 177 |
| CanonEOS1500 | Maharashtra | 120 |
| Infinity JBL | Maharashtra | 80 |
| Drivool | Alberta | 40 |
| Basshead225 | Texas | 80 |
| OneLap Micro | Texas | 40 |
| BoatRockerz255 | Texas | 110 |
| PTron | Texas | 118 |
| Infinity JBL | Alberta | 116 |
| Powershot | Texas | 142 |
| realme Buds2 | Texas | 40 |
| Sony SA D40 | Texas | 40 |
| Sony SA D40 | Maharashtra | 40 |

4. Find the total units sales in each city

**-->**

select i.item\_name,l.city,sum(s.units\_sold) as

city\_sales from salesfact s

left join items i on s.item\_key=i.item\_key

left join loc l on s.loc\_key=l.loc\_key

left join Stime t on s.time\_key=t.time\_key

group by (i.item\_name,l.city);

Output

|  |  |  |
| --- | --- | --- |
| **ITEM\_NAME** | **CITY** | **CITY\_SALES** |
| CanonEOS1500 | Fairview | 40 |
| BoatRockerz255 | Southlake | 40 |
| JBLC100S1 | Mumbai | 50 |
| Rugged | Chennai | 60 |
| Drivool | Southlake | 62 |
| JBLC100S1 | Bemont | 80 |
| Rugged | Houston | 40 |
| realme Buds2 | Southlake | 40 |
| Sony SA D40 | Houston | 40 |
| CanonEOS1500 | Algoma | 40 |
| Parker | Algoma | 120 |
| Powershot | Devon | 80 |
| BoatRockerz255 | Fairview | 120 |
| PTron | Ratnagiri | 80 |
| Sony SA D40 | Bemont | 40 |
| Philips Audio | Fairview | 64 |
| Rugged | Ratnagiri | 62 |
| PTron | Devon | 80 |
| Basshead225 | Fairview | 70 |
| Powershot | Southlake | 22 |
| Powershot | Chennai | 54 |
| OneLap Micro | Devon | 40 |
| Samsung Galaxy 21 | Fairview | 40 |
| JBLC100S1 | Devon | 40 |
| OneLap GO | Fairview | 40 |
| Apple iPad | Mumbai | 40 |
| BoatRockerz255 | Ratnagiri | 40 |
| SmartKey Finder | Chennai | 40 |
| Parker | Ratnagiri | 80 |
| Parker | Bemont | 80 |
| Basshead225 | Chennai | 80 |
| realme Buds2 | Algoma | 80 |
| BoatRockerz255 | Bemont | 60 |
| JBLC100S1 | Ratnagiri | 32 |
| Parker | Nashik | 354 |
| BoatRockerz255 | Mumbai | 26 |
| Philips Audio | Southlake | 40 |
| CanonEOS1500 | Chennai | 40 |
| PTron | Fairview | 40 |
| Powershot | Fairview | 40 |
| Sony SA D40 | Nashik | 40 |
| PTron | Chennai | 40 |
| Basshead225 | Nashik | 40 |
| Parker | Devon | 40 |
| PTron | Houston | 78 |
| Parker | Southlake | 180 |
| Samsung Galaxy 21 | Ratnagiri | 40 |
| BoatRockerz255 | Chennai | 80 |
| PTron | Mumbai | 40 |
| OneLap Micro | Southlake | 40 |