

# TOP SQL QUESTIONS

## PART 2

- Find top 5 most revenue earning products?
- Give list of products from electronics or mobile category earning revenue in the range of 200000 to 500000?
- What are Constraints?
- What are the different types of Constraints?

➤ **Find top 5 most revenue earning products?**

**CREATE TABLE PRODUCTS**

**(  
PRODUCT\_ID INT,  
PRODUCT\_CATEGORY VARCHAR (40),  
PRODUCT\_NAME VARCHAR (40),  
Revenue INT  
);**

**INSERT INTO PRODUCTS VALUES (1, 'FURNITURE','CHAIR', 6000),  
(2,'ELECTRONICS','FAN',80000),  
(3,'BEAUTY','SHAMPOO', 20000),  
(4,'FASHION','T-SHIRT',30000),  
(5,'GROCERIES','FRUITS',40000),  
(6,'MOBILE','SAMSUNG',300000),  
(7,'BEAUTY','SOAP', 50000),  
(8,'FASHION','JEANS',250000),  
(9,'GROCERIES','DAIRY',40000),  
(10,'MOBILE','APPLE',500000),  
(11,'GROCERIES','SNACKS',7500),  
(12,'ELECTRONICS','LIGHTS',100000),  
(13, 'FURNITURE','TABLE', 45000),  
(14,'MOBILE','MOTOROLA',200000),  
(15,'GROCERIES','BREAD',40000),  
(16,'ELECTRONICS','MIXER',150000),  
(17,'MOBILE','LENOVO',200000),  
(18, 'FURNITURE','SOFA', 40000),  
(19,'FASHION','BAG',25000),  
(20,'ELECTRONICS','TV',200000);**

**SELECT \* FROM PRODUCTS;**

**-----  
TOP 5 RVENUE EARNING PRODUCTS;**

**SELECT \* FROM PRODUCTS ORDER BY REVENUE DESC LIMIT 5;**

**SELECT \*, RANK () OVER (ORDER BY REVENUE DESC) AS TOP\_SELLING\_PRODUCTS FROM PRODUCTS;**

**SELECT \*, DENSE\_RANK () OVER (ORDER BY REVENUE DESC) AS TOP\_SELLING\_PRODUCTS FROM PRODUCTS;**

**SELECT \* FROM (  
SELECT \*, DENSE\_RANK () OVER (ORDER BY REVENUE DESC) AS  
TOP5\_REVENUE\_PRODUCTS FROM PRODUCTS) AS TEMP  
WHERE TOP5\_REVENUE\_PRODUCTS <=5;**

➤ **Give list of products from electronics or mobile category earning revenue in the range of 200000 to 500000?**

CREATE TABLE PRODUCTS

(  
PRODUCT\_ID INT,  
PRODUCT\_CATEGORY VARCHAR(40),  
PRODUCT\_NAME VARCHAR(40),  
Revenue INT  
);

INSERT INTO PRODUCTS VALUES (1, 'FURNITURE','CHAIR', 6000),  
(2,'ELECTRONICS','FAN',80000),  
(3,'BEAUTY','SHAMPOO', 20000),  
(4,'FASHION','T-SHIRT',30000),  
(5,'GROCERIES','FRUITS',40000),  
(6,'MOBILE','SAMSUNG',300000),  
(7,'BEAUTY','SOAP', 50000),  
(8,'FASHION','JEANS',250000),  
(9,'GROCERIES','DAIRY',40000),  
(10,'MOBILE','APPLE',500000),  
(11,'GROCERIES','SNACKS',7500),  
(12,'ELECTRONICS','LIGHTS',100000),  
(13, 'FURNITURE','TABLE', 45000),  
(14,'MOBILE','MOTOROLA',200000),  
(15,'GROCERIES','BREAD',40000),  
(16,'ELECTRONICS','MIXER',150000),  
(17,'MOBILE','LENOVO',200000),  
(18, 'FURNITURE','SOFA', 40000),  
(19,'FASHION','BAG',25000),  
(20,'ELECTRONICS','TV',200000);  
  
SELECT \* FROM PRODUCTS;

**/\*-----FIND PRODUCT\_CATEGORY EITHER ELECTRONICS OR MOBILE-----\*/**

**SELECT PRODUCT\_CATEGORY, PRODUCT\_NAME, REVENUE FROM PRODUCTS  
WHERE PRODUCT\_CATEGORY IN ('ELECTRONICS','MOBILE');**

**/\*-----REVENUE RANGE 200000 TO 500000-----\*/**

**SELECT PRODUCT\_CATEGORY, PRODUCT\_NAME, REVENUE FROM PRODUCTS  
WHERE REVENUE BETWEEN 200000 AND 500000;**

**SELECT PRODUCT\_CATEGORY, PRODUCT\_NAME, REVENUE FROM PRODUCTS  
WHERE PRODUCT\_CATEGORY IN ('ELECTRONICS','MOBILE')  
  
AND  
  
REVENUE BETWEEN 200000 AND 500000;**

➤ **What are Constraints?**

➤ **What are the different types of Constraints?**



```
CREATE TABLE EMPLOYEE (  
EMP_ID INT PRIMARY KEY,  
EMP_NAME VARCHAR (40) NOT NULL,  
EMP_DEPT VARCHAR (40) UNIQUE,  
EMP_AGE INT CHECK (EMP_AGE>18),  
EMP_SALARY INT DEFAULT 20000);
```

```
SELECT * FROM EMPLOYEE;
```

-----NOT NULL -----

```
INSERT INTO EMPLOYEE VALUES (1,'A', 'SALES',30,40000);
```

```
SELECT * FROM EMPLOYEE;
```

```
INSERT INTO EMPLOYEE VALUES (1, NULL, 'SALES',30,40000);
```

-----UNIQUE-----

```
INSERT INTO EMPLOYEE VALUES (3,'A', 'SALES',30,40000);
```

```
SELECT * FROM EMPLOYEE;
```

```
INSERT INTO EMPLOYEE VALUES (3,'A', 'ANALYST',30,40000);
```

-----PRIMARY KEY-----

```
INSERT INTO EMPLOYEE VALUES (3,'A', 'ADMIN',32,50000);
```

```
INSERT INTO EMPLOYEE VALUES (4,'A', 'ADMIN',32,50000);
```

```
SELECT * FROM EMPLOYEE;
```

```
INSERT INTO EMPLOYEE VALUES (NULL, 'B', 'R&D',30,60000);
```

```
INSERT INTO EMPLOYEE VALUES (5, 'B', 'R&D',30,60000);
```

-----CHECK -----

```
INSERT INTO EMPLOYEE VALUES (6,'P', 'HR',16,40000);
```

```
INSERT INTO EMPLOYEE VALUES (6,'P', 'HR',20,40000);
```

```
SELECT * FROM EMPLOYEE;
```

-----DEFAULT-----

```
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_DEPT,EMP_AGE)  
VALUES(7,'P','Finance',40);
```

**SELECT \* FROM EMPLOYEE;**

-----

**DROP TABLE EMPLOYEE1;**

**CREATE TABLE EMPLOYEE1(**

**EMP\_ID INT,**

**EMP\_NAME VARCHAR (40),**

**EMP\_DEPT VARCHAR (40),**

**EMP\_AGE INT,**

**EMP\_SALARY INT);**

**SELECT \* FROM EMPLOYEE1;**

**ALTER TABLE EMPLOYEE1**

**ADD CONSTRAINT PRIMARY\_CONSTRAINT PRIMARY KEY(EMP\_ID);**

**ALTER TABLE EMPLOYEE1**

**ADD CONSTRAINT UNIQUE\_CONSTRAINT UNIQUE (EMP\_DEPT);**

**DESCRIBE EMPLOYEE1;**

-----

**-----DROP CONSTRAINT -----**

**ALTER TABLE EMPLOYEE1**

**DROP CONSTRAINT UNIQUE\_CONSTRAINT;**

**DESCRIBE EMPLOYEE1;**

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