**CODING PRACTICE – 26/05/2023**

**mysql> show databases;**

**+--------------------+**

**| Database |**

**+--------------------+**

**| amazon\_product |**

**| batch15 |**

**| blrdb |**

**| information\_schema |**

**| kgm |**

**| mysql |**

**| performance\_schema |**

**| sakila |**

**| sys |**

**| workbench |**

**| world |**

**+--------------------+**

**11 rows in set (0.39 sec)**

**mysql> use blrdb**

**Database changed**

**mysql> show tables;**

**+-----------------+**

**| Tables\_in\_blrdb |**

**+-----------------+**

**| product\_det |**

**| stu\_marks |**

**| student\_data |**

**+-----------------+**

**3 rows in set (0.06 sec)**

**mysql> select \* from product\_det;**

**+------+--------------+----------+------------+**

**| pid | pname | price | dom |**

**+------+--------------+----------+------------+**

**| wt22 | Apple Watch | 50999.99 | 2023-03-24 |**

**| mb28 | Redmi | 17899.99 | 2023-02-22 |**

**| sl01 | Puma | 2000.50 | 2023-01-15 |**

**| wt23 | Apple Watch9 | 69999.99 | 2023-03-26 |**

**| mb22 | Samsung | 27899.99 | 2023-01-22 |**

**| sl20 | VKC | 350.50 | 2023-01-17 |**

**| wt28 | Noise | 2999.99 | 2023-03-26 |**

**| mb32 | Samsung DX | 30899.99 | 2023-01-22 |**

**| sl69 | Addidas | 3550.50 | 2023-02-06 |**

**| wt28 | Noise | 2999.99 | 2023-03-26 |**

**| mb32 | Samsung DX | 30899.99 | 2023-01-22 |**

**| sl69 | Addidas | 3550.50 | 2023-02-06 |**

**| wt23 | Apple Watch9 | 69999.99 | 2023-03-26 |**

**| mb22 | Samsung | 27899.99 | 2023-01-22 |**

**| sl20 | VKC | 350.50 | 2023-01-17 |**

**+------+--------------+----------+------------+**

**15 rows in set (0.04 sec)**

**mysql> select count(pname) from product\_det;**

**+--------------+**

**| count(pname) |**

**+--------------+**

**| 15 |**

**+--------------+**

**1 row in set (0.07 sec)**

**mysql> select sum(price) from product\_det;**

**+------------+**

**| sum(price) |**

**+------------+**

**| 342302.40 |**

**+------------+**

**1 row in set (0.03 sec)**

**mysql> select avg(price) from product\_det;**

**+--------------+**

**| avg(price) |**

**+--------------+**

**| 22820.160000 |**

**+--------------+**

**1 row in set (0.03 sec)**

**mysql> select max(price) from product\_det;**

**+------------+**

**| max(price) |**

**+------------+**

**| 69999.99 |**

**+------------+**

**1 row in set (0.07 sec)**

**mysql> select min(price) from product\_det;**

**+------------+**

**| min(price) |**

**+------------+**

**| 350.50 |**

**+------------+**

**1 row in set (0.00 sec)**

**mysql> select sum(price) as Sum\_of\_all\_Price from product\_det;**

**+------------------+**

**| Sum\_of\_all\_Price |**

**+------------------+**

**| 342302.40 |**

**+------------------+**

**1 row in set (0.00 sec)**

**mysql> select min(price) as Minimum\_Price\_Product from product\_det;**

**+-----------------------+**

**| Minimum\_Price\_Product |**

**+-----------------------+**

**| 350.50 |**

**+-----------------------+**

**1 row in set (0.00 sec)**

**mysql> select pname,sum(price) as SumOfPrice from product\_det GROUP BY pname;**

**+--------------+------------+**

**| pname | SumOfPrice |**

**+--------------+------------+**

**| Apple Watch | 50999.99 |**

**| Redmi | 17899.99 |**

**| Puma | 2000.50 |**

**| Apple Watch9 | 139999.98 |**

**| Samsung | 55799.98 |**

**| VKC | 701.00 |**

**| Noise | 5999.98 |**

**| Samsung DX | 61799.98 |**

**| Addidas | 7101.00 |**

**+--------------+------------+**

**9 rows in set (0.06 sec)**

**mysql> select pname,count(price) as NoOfProduct from product\_det GROUP BY pname;**

**+--------------+-------------+**

**| pname | NoOfProduct |**

**+--------------+-------------+**

**| Apple Watch | 1 |**

**| Redmi | 1 |**

**| Puma | 1 |**

**| Apple Watch9 | 2 |**

**| Samsung | 2 |**

**| VKC | 2 |**

**| Noise | 2 |**

**| Samsung DX | 2 |**

**| Addidas | 2 |**

**+--------------+-------------+**

**9 rows in set (0.00 sec)**

**mysql> select pname,min(price) as MinimumPriceProduct from product\_det GROUP BY pname;**

**+--------------+---------------------+**

**| pname | MinimumPriceProduct |**

**+--------------+---------------------+**

**| Apple Watch | 50999.99 |**

**| Redmi | 17899.99 |**

**| Puma | 2000.50 |**

**| Apple Watch9 | 69999.99 |**

**| Samsung | 27899.99 |**

**| VKC | 350.50 |**

**| Noise | 2999.99 |**

**| Samsung DX | 30899.99 |**

**| Addidas | 3550.50 |**

**+--------------+---------------------+**

**9 rows in set (0.03 sec)**

**mysql> select pname,max(price) as MinimumPriceProduct from product\_det GROUP BY pname;**

**+--------------+---------------------+**

**| pname | MinimumPriceProduct |**

**+--------------+---------------------+**

**| Apple Watch | 50999.99 |**

**| Redmi | 17899.99 |**

**| Puma | 2000.50 |**

**| Apple Watch9 | 69999.99 |**

**| Samsung | 27899.99 |**

**| VKC | 350.50 |**

**| Noise | 2999.99 |**

**| Samsung DX | 30899.99 |**

**| Addidas | 3550.50 |**

**+--------------+---------------------+**

**9 rows in set (0.00 sec)**

**mysql> insert into product\_det values('wt22','Apple Watch','20000.00','2023-05-12');**

**Query OK, 1 row affected (0.17 sec)**

**mysql> select \* from product\_det;**

**+------+--------------+----------+------------+**

**| pid | pname | price | dom |**

**+------+--------------+----------+------------+**

**| wt22 | Apple Watch | 50999.99 | 2023-03-24 |**

**| mb28 | Redmi | 17899.99 | 2023-02-22 |**

**| sl01 | Puma | 2000.50 | 2023-01-15 |**

**| wt23 | Apple Watch9 | 69999.99 | 2023-03-26 |**

**| mb22 | Samsung | 27899.99 | 2023-01-22 |**

**| sl20 | VKC | 350.50 | 2023-01-17 |**

**| wt28 | Noise | 2999.99 | 2023-03-26 |**

**| mb32 | Samsung DX | 30899.99 | 2023-01-22 |**

**| sl69 | Addidas | 3550.50 | 2023-02-06 |**

**| wt28 | Noise | 2999.99 | 2023-03-26 |**

**| mb32 | Samsung DX | 30899.99 | 2023-01-22 |**

**| sl69 | Addidas | 3550.50 | 2023-02-06 |**

**| wt23 | Apple Watch9 | 69999.99 | 2023-03-26 |**

**| mb22 | Samsung | 27899.99 | 2023-01-22 |**

**| sl20 | VKC | 350.50 | 2023-01-17 |**

**| wt22 | Apple Watch | 20000.00 | 2023-05-12 |**

**+------+--------------+----------+------------+**

**16 rows in set (0.00 sec)**

**mysql> select pname,min(price) as MinimumPriceProduct from product\_det GROUP BY pname;**

**+--------------+---------------------+**

**| pname | MinimumPriceProduct |**

**+--------------+---------------------+**

**| Apple Watch | 20000.00 |**

**| Redmi | 17899.99 |**

**| Puma | 2000.50 |**

**| Apple Watch9 | 69999.99 |**

**| Samsung | 27899.99 |**

**| VKC | 350.50 |**

**| Noise | 2999.99 |**

**| Samsung DX | 30899.99 |**

**| Addidas | 3550.50 |**

**+--------------+---------------------+**

**9 rows in set (0.00 sec)**

**mysql> select pname,max(price) as MinimumPriceProduct from product\_det GROUP BY pname;**

**+--------------+---------------------+**

**| pname | MinimumPriceProduct |**

**+--------------+---------------------+**

**| Apple Watch | 50999.99 |**

**| Redmi | 17899.99 |**

**| Puma | 2000.50 |**

**| Apple Watch9 | 69999.99 |**

**| Samsung | 27899.99 |**

**| VKC | 350.50 |**

**| Noise | 2999.99 |**

**| Samsung DX | 30899.99 |**

**| Addidas | 3550.50 |**

**+--------------+---------------------+**

**9 rows in set (0.00 sec)**

**mysql> select pname,sum(price) as SumOfPrice from product\_det GROUP BY pname;**

**+--------------+------------+**

**| pname | SumOfPrice |**

**+--------------+------------+**

**| Apple Watch | 70999.99 |**

**| Redmi | 17899.99 |**

**| Puma | 2000.50 |**

**| Apple Watch9 | 139999.98 |**

**| Samsung | 55799.98 |**

**| VKC | 701.00 |**

**| Noise | 5999.98 |**

**| Samsung DX | 61799.98 |**

**| Addidas | 7101.00 |**

**+--------------+------------+**

**9 rows in set (0.00 sec)**

**mysql> select pname,avg(price) as SumOfPrice from product\_det GROUP BY pname;**

**+--------------+--------------+**

**| pname | SumOfPrice |**

**+--------------+--------------+**

**| Apple Watch | 35499.995000 |**

**| Redmi | 17899.990000 |**

**| Puma | 2000.500000 |**

**| Apple Watch9 | 69999.990000 |**

**| Samsung | 27899.990000 |**

**| VKC | 350.500000 |**

**| Noise | 2999.990000 |**

**| Samsung DX | 30899.990000 |**

**| Addidas | 3550.500000 |**

**+--------------+--------------+**

**9 rows in set (0.04 sec)**

**mysql> select pname,count(price) from product\_det group by pname having count(price)>1;**

**+--------------+--------------+**

**| pname | count(price) |**

**+--------------+--------------+**

**| Apple Watch | 2 |**

**| Apple Watch9 | 2 |**

**| Samsung | 2 |**

**| VKC | 2 |**

**| Noise | 2 |**

**| Samsung DX | 2 |**

**| Addidas | 2 |**

**+--------------+--------------+**

**7 rows in set (0.03 sec)**

**mysql> select pname,sum(price) from product\_det group by pname having sum(price)>=60000;**

**+--------------+------------+**

**| pname | sum(price) |**

**+--------------+------------+**

**| Apple Watch | 70999.99 |**

**| Apple Watch9 | 139999.98 |**

**| Samsung DX | 61799.98 |**

**+--------------+------------+**

**3 rows in set (0.00 sec)**

**mysql> select pname,sum(price) from product\_det group by pname having sum(price)<10000;**

**+---------+------------+**

**| pname | sum(price) |**

**+---------+------------+**

**| Puma | 2000.50 |**

**| VKC | 701.00 |**

**| Noise | 5999.98 |**

**| Addidas | 7101.00 |**

**+---------+------------+**

**4 rows in set (0.00 sec)**

**mysql> select pname,min(price) from product\_det group by pname having min(price)<1000;**

**+-------+------------+**

**| pname | min(price) |**

**+-------+------------+**

**| VKC | 350.50 |**

**+-------+------------+**

**1 row in set (0.03 sec)**

**mysql> select pname,min(price) from product\_det group by pname;**

**+--------------+------------+**

**| pname | min(price) |**

**+--------------+------------+**

**| Apple Watch | 20000.00 |**

**| Redmi | 17899.99 |**

**| Puma | 2000.50 |**

**| Apple Watch9 | 69999.99 |**

**| Samsung | 27899.99 |**

**| VKC | 350.50 |**

**| Noise | 2999.99 |**

**| Samsung DX | 30899.99 |**

**| Addidas | 3550.50 |**

**+--------------+------------+**

**9 rows in set (0.00 sec)**

**mysql> select pname,min(price) from product\_det group by pname having min(price)< 10000**

**-> ;**

**+---------+------------+**

**| pname | min(price) |**

**+---------+------------+**

**| Puma | 2000.50 |**

**| VKC | 350.50 |**

**| Noise | 2999.99 |**

**| Addidas | 3550.50 |**

**+---------+------------+**

**4 rows in set (0.00 sec)**

**mysql> select pname,min(price) from product\_det group by pname order by min(price);**

**+--------------+------------+**

**| pname | min(price) |**

**+--------------+------------+**

**| VKC | 350.50 |**

**| Puma | 2000.50 |**

**| Noise | 2999.99 |**

**| Addidas | 3550.50 |**

**| Redmi | 17899.99 |**

**| Apple Watch | 20000.00 |**

**| Samsung | 27899.99 |**

**| Samsung DX | 30899.99 |**

**| Apple Watch9 | 69999.99 |**

**+--------------+------------+**

**9 rows in set (0.03 sec)**

**mysql> select pname,min(price) from product\_det group by pname having min(price) < 10000 order by min(price) ;**

**+---------+------------+**

**| pname | min(price) |**

**+---------+------------+**

**| VKC | 350.50 |**

**| Puma | 2000.50 |**

**| Noise | 2999.99 |**

**| Addidas | 3550.50 |**

**+---------+------------+**

**4 rows in set (0.00 sec)**

**mysql> select \* from product\_det limit 3;**

**+------+-------------+----------+------------+**

**| pid | pname | price | dom |**

**+------+-------------+----------+------------+**

**| wt22 | Apple Watch | 50999.99 | 2023-03-24 |**

**| mb28 | Redmi | 17899.99 | 2023-02-22 |**

**| sl01 | Puma | 2000.50 | 2023-01-15 |**

**+------+-------------+----------+------------+**

**3 rows in set (0.00 sec)**

**mysql> select \* from product\_det limit 5 ;**

**+------+--------------+----------+------------+**

**| pid | pname | price | dom |**

**+------+--------------+----------+------------+**

**| wt22 | Apple Watch | 50999.99 | 2023-03-24 |**

**| mb28 | Redmi | 17899.99 | 2023-02-22 |**

**| sl01 | Puma | 2000.50 | 2023-01-15 |**

**| wt23 | Apple Watch9 | 69999.99 | 2023-03-26 |**

**| mb22 | Samsung | 27899.99 | 2023-01-22 |**

**+------+--------------+----------+------------+**

**5 rows in set (0.02 sec)**

**mysql> select \* from product\_det limit 3 offset 6;**

**+------+------------+----------+------------+**

**| pid | pname | price | dom |**

**+------+------------+----------+------------+**

**| wt28 | Noise | 2999.99 | 2023-03-26 |**

**| mb32 | Samsung DX | 30899.99 | 2023-01-22 |**

**| sl69 | Addidas | 3550.50 | 2023-02-06 |**

**+------+------------+----------+------------+**

**3 rows in set (0.00 sec)**

**mysql> select \* from product\_det limit 2 offset 14;**

**+------+-------------+----------+------------+**

**| pid | pname | price | dom |**

**+------+-------------+----------+------------+**

**| sl20 | VKC | 350.50 | 2023-01-17 |**

**| wt22 | Apple Watch | 20000.00 | 2023-05-12 |**

**+------+-------------+----------+------------+**

**2 rows in set (0.00 sec)**

**CONSTRAINTS**

**mysql> create table demo\_null(id int);**

**Query OK, 0 rows affected (1.16 sec)**

**mysql> desc demo\_null;**

**+-------+------+------+-----+---------+-------+**

**| Field | Type | Null | Key | Default | Extra |**

**+-------+------+------+-----+---------+-------+**

**| id | int | YES | | NULL | |**

**+-------+------+------+-----+---------+-------+**

**1 row in set (0.06 sec)**

**mysql> insert into demo\_null values(12);**

**Query OK, 1 row affected (0.07 sec)**

**mysql> insert into demo\_null values(77);**

**Query OK, 1 row affected (0.07 sec)**

**mysql> insert into demo\_null values();**

**Query OK, 1 row affected (0.06 sec)**

**mysql> select \* from demo\_null;**

**+------+**

**| id |**

**+------+**

**| 12 |**

**| 77 |**

**| NULL |**

**+------+**

**3 rows in set (0.00 sec)**

**mysql> create table demo\_ntnull(id int not null);**

**Query OK, 0 rows affected (0.24 sec)**

**mysql> desc demo\_ntnull;**

**+-------+------+------+-----+---------+-------+**

**| Field | Type | Null | Key | Default | Extra |**

**+-------+------+------+-----+---------+-------+**

**| id | int | NO | | NULL | |**

**+-------+------+------+-----+---------+-------+**

**1 row in set (0.00 sec)**

**mysql> insert into demo\_ntnull values(12);**

**Query OK, 1 row affected (0.05 sec)**

**mysql> insert into demo\_ntnull values(77);**

**Query OK, 1 row affected (0.06 sec)**

**mysql> insert into demo\_ntnull values();**

**ERROR 1364 (HY000): Field 'id' doesn't have a default value**

**mysql>**

**mysql> select \* from demo\_null;**

**+------+**

**| id |**

**+------+**

**| 12 |**

**| 77 |**

**| NULL |**

**| 77 |**

**| 77 |**

**| 12 |**

**| 12 |**

**+------+**

**7 rows in set (0.00 sec)**

**mysql> create table uniq(id int unique key);**

**Query OK, 0 rows affected (0.21 sec)**

**mysql> desc uniq;**

**+-------+------+------+-----+---------+-------+**

**| Field | Type | Null | Key | Default | Extra |**

**+-------+------+------+-----+---------+-------+**

**| id | int | YES | UNI | NULL | |**

**+-------+------+------+-----+---------+-------+**

**1 row in set (0.00 sec)**

**mysql> create table uniq(id int unique key);**

**Query OK, 0 rows affected (0.21 sec)**

**mysql> desc uniq;**

**+-------+------+------+-----+---------+-------+**

**| Field | Type | Null | Key | Default | Extra |**

**+-------+------+------+-----+---------+-------+**

**| id | int | YES | UNI | NULL | |**

**+-------+------+------+-----+---------+-------+**

**1 row in set (0.00 sec)**

**mysql> insert into uniq values(1000);**

**Query OK, 1 row affected (0.04 sec)**

**mysql> insert into uniq values(1023);**

**Query OK, 1 row affected (0.04 sec)**

**mysql> insert into uniq values(1000);**

**ERROR 1062 (23000): Duplicate entry '1000' for key 'uniq.id'**

**mysql> insert into uniq values();**

**Query OK, 1 row affected (0.04 sec)**

**mysql> select \* from uniq;**

**+------+**

**| id |**

**+------+**

**| NULL |**

**| 1000 |**

**| 1023 |**

**+------+**

**3 rows in set (0.00 sec)**

**mysql> create table prod\_det(pid int primary key,pname varchar(25),price double(10,2));**

**Query OK, 0 rows affected, 1 warning (0.20 sec)**

**mysql> desc prod\_det;**

**+-------+--------------+------+-----+---------+-------+**

**| Field | Type | Null | Key | Default | Extra |**

**+-------+--------------+------+-----+---------+-------+**

**| pid | int | NO | PRI | NULL | |**

**| pname | varchar(25) | YES | | NULL | |**

**| price | double(10,2) | YES | | NULL | |**

**+-------+--------------+------+-----+---------+-------+**

**3 rows in set (0.00 sec)**

**mysql> insert into prod\_det values(01,'Redmi',32999.50);**

**Query OK, 1 row affected (0.10 sec)**

**mysql> insert into prod\_det values(02,'Samsung',12999.90);**

**Query OK, 1 row affected (0.07 sec)**

**mysql> insert into prod\_det values(03,'Iphone',120999.90);**

**Query OK, 1 row affected (0.04 sec)**

**mysql> insert into prod\_det values(04,'Nokia',13000);**

**Query OK, 1 row affected (0.03 sec)**

**mysql> insert into prod\_det values(05,'Oppo',18000.50);**

**Query OK, 1 row affected (0.04 sec)**

**mysql> insert into prod\_det values(06,'Real me',12000.50);**

**Query OK, 1 row affected (0.04 sec)**

**mysql> insert into prod\_det values(06,'Vivo',12000.50);**

**ERROR 1062 (23000): Duplicate entry '6' for key 'prod\_det.PRIMARY'**

**mysql> insert into prod\_det values(02,'Vivo',12000.50);**

**ERROR 1062 (23000): Duplicate entry '2' for key 'prod\_det.PRIMARY'**

**mysql> insert into prod\_det values(,'Iphone',120999.90);**

**ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near ','Iphone',120999.90)' at line 1**

**mysql> create table prod\_det(pid int primary key,pname varchar(25),price double(10,2));**

**mysql> create table cust\_det(cid varchar(6),cname varchar(25),address text(30),pid int,foreign key(pid) references prod\_det(pid));**

**Query OK, 0 rows affected (0.32 sec)**

**mysql> desc cust\_det;**

**+---------+-------------+------+-----+---------+-------+**

**| Field | Type | Null | Key | Default | Extra |**

**+---------+-------------+------+-----+---------+-------+**

**| cid | varchar(6) | YES | | NULL | |**

**| cname | varchar(25) | YES | | NULL | |**

**| address | tinytext | YES | | NULL | |**

**| pid | int | YES | MUL | NULL | |**

**+---------+-------------+------+-----+---------+-------+**

**4 rows in set (0.00 sec)**

**mysql> insert into cust\_det('c001','Tejaswini','Bengaluru',4);**

**ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near ''c001','Tejaswini','Bengaluru',4)' at line 1**

**mysql> insert into cust\_det values('c001','Tejaswini','Bengaluru',4);**

**Query OK, 1 row affected (0.09 sec)**

**mysql> insert into cust\_det values('c002','Sanjai','Coimbatore',3);**

**Query OK, 1 row affected (0.07 sec)**

**mysql> insert into cust\_det values('c012','Kirubakaran','Thiruvannamalai',1);**

**Query OK, 1 row affected (0.04 sec)**

**mysql> insert into cust\_det values('c004','Naveen','Bengaluru',6);**

**Query OK, 1 row affected (0.07 sec)**

**mysql> insert into cust\_det values('c005','Suresh','Mysuru',12);**

**ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`blrdb`.`cust\_det`, CONSTRAINT `cust\_det\_ibfk\_1` FOREIGN KEY (`pid`) REFERENCES `prod\_det` (`pid`))**

**mysql> select \* from cust\_det;**

**+------+-------------+-----------------+------+**

**| cid | cname | address | pid |**

**+------+-------------+-----------------+------+**

**| c001 | Tejaswini | Bengaluru | 4 |**

**| c002 | Sanjai | Coimbatore | 3 |**

**| c012 | Kirubakaran | Thiruvannamalai | 1 |**

**| c004 | Naveen | Bengaluru | 6 |**

**+------+-------------+-----------------+------+**