

A CASE STUDY ON





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Create database

```
MariaDB [(none)]> create database lenscart;
Query OK, 1 row affected (0.002 sec)
MariaDB [(none)]> show databases;
 Database
 batch1to3
 company
 information_schema
 join operations
 lenscart
 mysql
 performance_schema
 phpmyadmin
 tables
 test
 vehicle
11 rows in set (0.001 sec)
MariaDB [(none)]> use lenscart;
Database changed
```

Query: create database lenscart;

Create a table

```
MariaDB [lenscart]> create table My_Glasses(Glass_Types varchar(40),Frame_Shape varchar(40),Frame_Color varchar(40),Brands varchar(40),Frame_Size varchar(40),Gender varchar
(40), Price varchar(40));
Query OK, 0 rows affected (0.338 sec)
MariaDB [lenscart]> desc My Glasses;
                           Null Key Default Extra
 Field
 Glass Types | varchar(40) |
                           YES
                                        NULL
Frame Shape
             varchar(40)
                            YES
                                        NULL
 Frame Color
              varchar(40)
                                        NULL
 Brands
              varchar(40)
                                        NULL
 Frame_Size
              varchar(40)
                                        NULL
 Gender
              varchar(40)
                                        NULL
 Price
              varchar(40)
                                         NULL
```

Query

7 rows in set (0.111 sec)

To create table: create table My_Glasses(Glass_Types varchar(40),Frame_Shape varchar(40),Frame_Color varchar(40),Brands varchar(40),Frame_Size varchar(40),Gender varchar(40),Price varchar(40));

To show table: desc My_Glasses;

Table for Information of Lenses

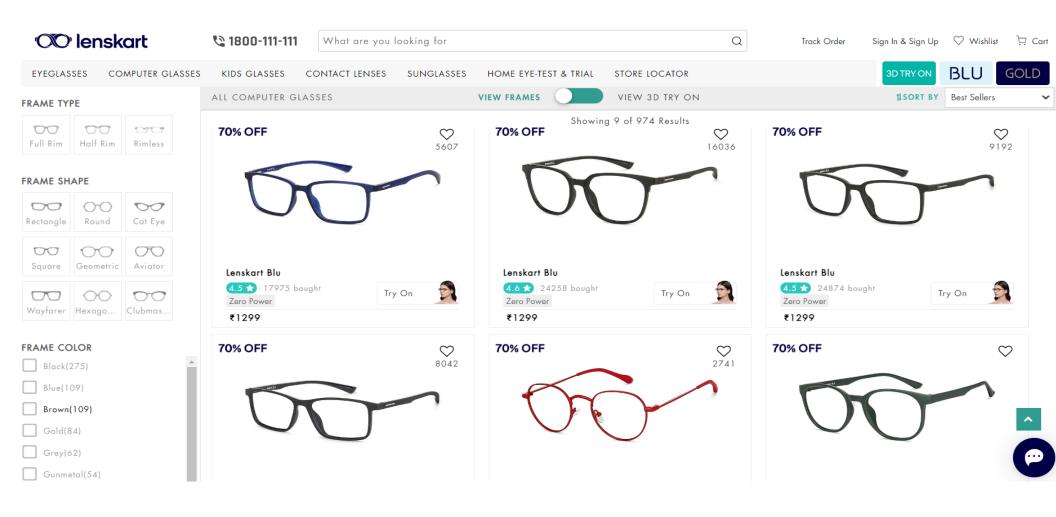
```
MariaDB [lenscart]> insert into My Glasses values
   -> ("Progressive Eyeglasses", "Cet Eye", "Red", "Lenscart Blu", "Medium", "Men", "1500"),
   -> ("Sunglasses", "Aviator", "Tortoise", "Jhon Jacobs", "Wide", "Women", "1699"),
    -> ("Power Sunglasses", "Hexagonal", "Maroon", "Jhon Jacobs", "Wide", "Men", "2000"),
   -> ("Kids Eyeglasses", "Rectangle", "Transparent", "Kid Zania", "Narrow", "Men", "2500"),
    -> ("Computer Glasses", "Oval", "Rose Gold", "Lenscart Blu", "Narrow", "Women", "3000"),
   -> ("Computer Glasses", "Geometric", "Black", "Hooper", "Extra Wide", "Men", "3499"),
   -> ("Reading Eyeglasses", "Square", "Transparent", "Vincent", "Medium", "Unisex", "2000"),
   -> ("Progressive Eyeglasses", "Square", "Pink", "Vincent", "Medium", "Women", "3999"),
   -> ("Sunglasses", "Square", "Sky blue", "Jhon Jacobs", "Narrow", "Unisex", "4500");
Query OK, 9 rows affected (0.068 sec)
Records: 9 Duplicates: 0 Warnings: 0
MariaDB [lenscart]> select * from My Glasses;
 Glass Types
                           Frame Shape | Frame Color | Brands
                                                                         Frame Size
                                                                                         Gender
                                                                                                | Price
 Eyeglasses
                            Square
                                           Grey
                                                         Vincent
                                                                         Narrow
                                                                                         Unisex
                                                                                                  1300
 Computer Glasses
                            Round
                                           Blue
                                                         Hooper
                                                                         Extra Narrow
                                                                                         Kid
                                                                                                  1400
 Progressive Eyeglasses
                           Cet Eye
                                           Red
                                                         Lenscart Blu |
                                                                         Medium
                                                                                         Men
                                                                                                  1500
 Sunglasses
                            Aviator
                                           Tortoise
                                                         Jhon Jacobs
                                                                         Wide
                                                                                         Women
                                                                                                  1699
 Power Sunglasses
                           Hexagonal
                                                         Jhon Jacobs
                                                                         Wide
                                          Maroon
                                                                                         Men
                                                                                                   2000
 Kids Eyeglasses
                           Rectangle
                                          Transparent
                                                         Kid Zania
                                                                         Narrow
                                                                                                  2500
                                                                                         Men
 Computer Glasses
                            Oval
                                          Rose Gold
                                                         Lenscart Blu
                                                                         Narrow
                                                                                                   3000
                                                                                         Women
 Computer Glasses
                            Geometric
                                                         Hooper
                                                                         Extra Wide
                                          Black
                                                                                                   3499
                                                                                         Men
 Reading Eyeglasses
                           Square
                                          Transparent
                                                                         Medium
                                                         Vincent
                                                                                         Unisex
                                                                                                  2000
 Progressive Eyeglasses
                            Square
                                           Pink
                                                         Vincent
                                                                         Medium
                                                                                         Women
                                                                                                   3999
 Sunglasses
                            Square
                                           Sky blue
                                                         Jhon Jacobs
                                                                                         Unisex
                                                                                                  4500
                                                                         Narrow
11 rows in set (0.001 sec)
```

Query

To insert values: insert into My_Glasses values(.....);

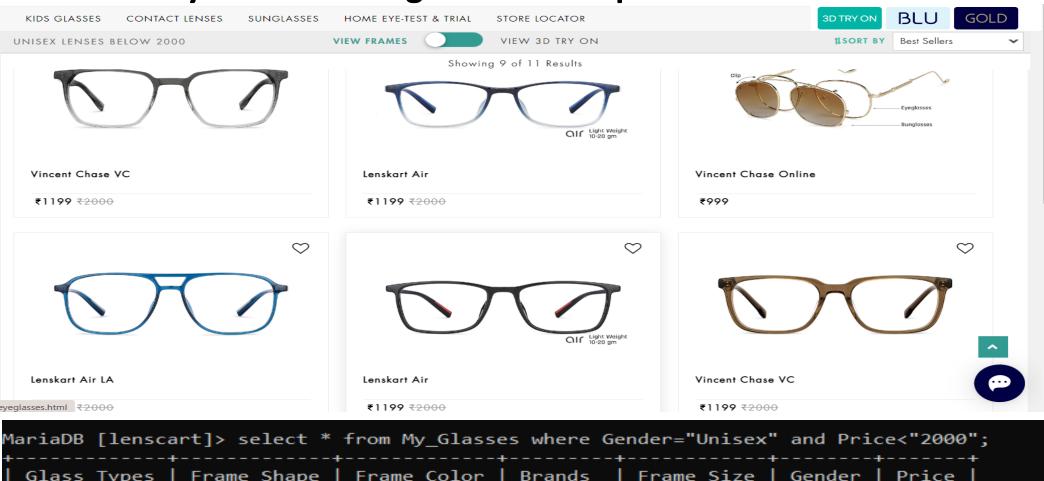
To see all data : select * from My_Glasses;

To see all products



Query : select * from My_Glasses;

If you are looking for Unisex Specs below Rs.2000



```
      MariaDB [lenscart]> select * from My_Glasses where Gender="Unisex" and Price<"2000";</td>

      +-----+
      Glass_Types | Frame_Shape | Frame_Color | Brands | Frame_Size | Gender | Price |

      | Glass_Types | Frame_Shape | Frame_Color | Brands | Frame_Size | Gender | Price |

      | Eyeglasses | Square | Grey | Vincent | Narrow | Unisex | 1300 |

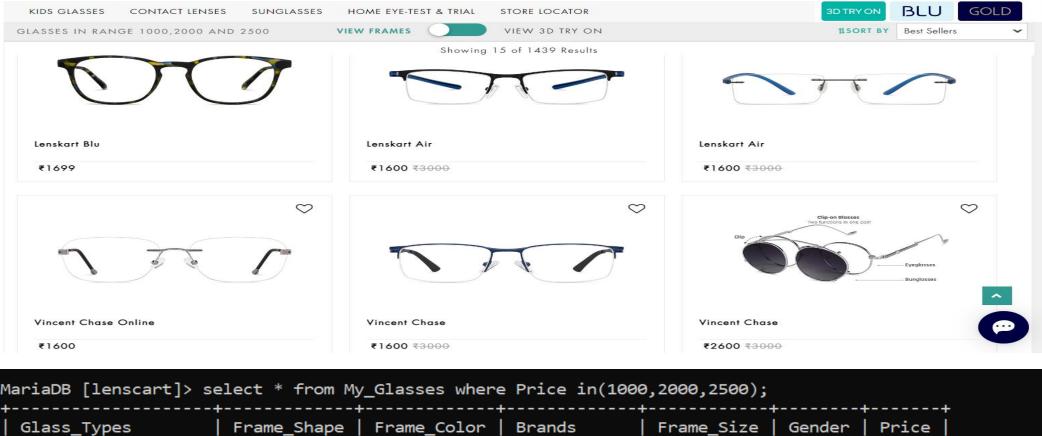
      +-----+

      1 row in set (0.001 sec)

      MariaDB [lenscart]>
```

Query: select * from My_Glasses where Gender="Unisex" and Price<"2000";

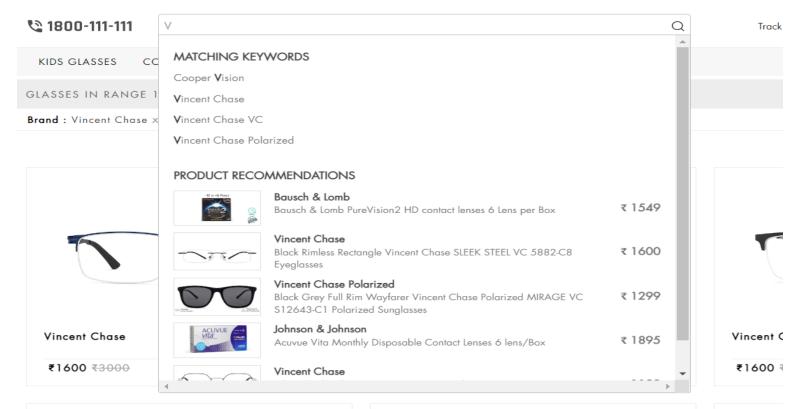
Glasses in range 1000,2000,2500



Power Sunglasses Hexagonal Jhon Jacobs Wide 2000 Maroon Men Kid Zania Kids Eyeglasses Rectangle 2500 Transparent Narrow Men Reading Eyeglasses Medium Vincent Unisex Square Transparent 2000 3 rows in set (0.001 sec)

Query: select * from My_Glasses where Price in(1000,2000,2500);

If you are searching for Vincent brand



MariaDB [lenscart]> select * from My_Glasses where Brands like "V%";										
Glass_Types	Frame_Shape	e_Shape Frame_Color		Frame_Size	Gender	Price				
Eyeglasses Reading Eyeglasses Progressive Eyeglasses	Square Square Square	Grey Transparent Pink	Vincent Vincent Vincent	Medium	Unisex Unisex Women	1300 2000 3999				
3 rows in set (0.001 sec)		+	+	+						

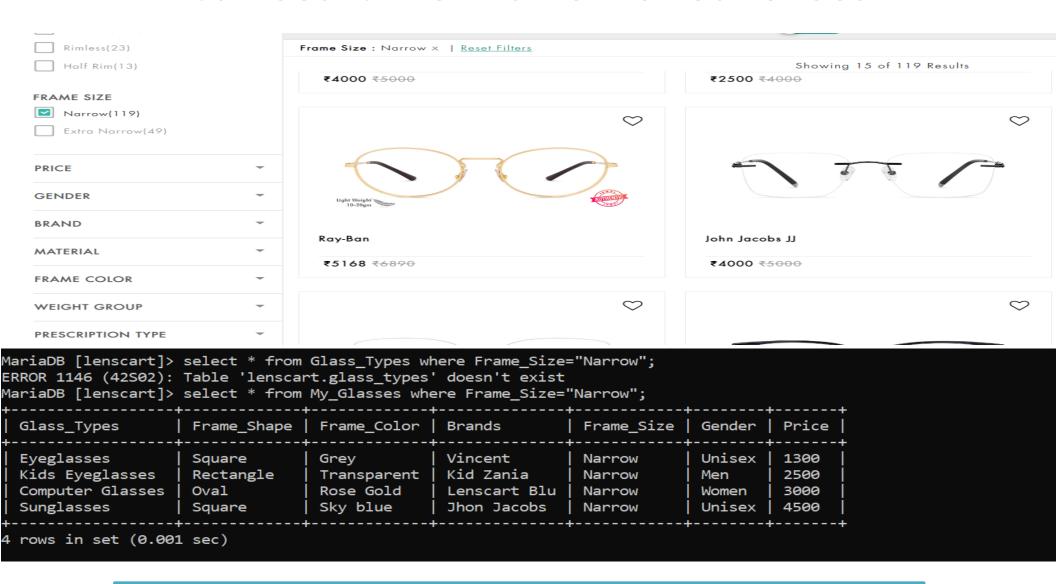
Query: select * from My_Glasses where Brands like "V"%;

Order by High to Low

Glass_Types	Frame_Shape	Frame_Color	Brands	Frame_Size	Gender	Price
Sunglasses	Square	Sky blue	Jhon Jacobs	Narrow	Unisex	4500
Progressive Eyeglasses	Square	Pink	Vincent	Medium	Women	3999
Computer Glasses	Geometric	Black	Hooper	Extra Wide	Men	3499
Computer Glasses	Oval	Rose Gold	Lenscart Blu	Narrow	Women	3000
Kids Eyeglasses	Rectangle	Transparent	Kid Zania	Narrow	Men	2500
Power Sunglasses	Hexagonal	Maroon	Jhon Jacobs	Wide	Men	2000
Reading Eyeglasses	Square	Transparent	Vincent	Medium	Unisex	2000
Sunglasses	Aviator	Tortoise	Jhon Jacobs	Wide	Women	1699
Progressive Eyeglasses	Cet Eye	Red	Lenscart Blu	Medium	Men	1500
Computer Glasses	Round	Blue	Hooper	Extra Narrow	Kid	1400
Eyeglasses	Square	Grey	Vincent	Narrow	Unisex	1300

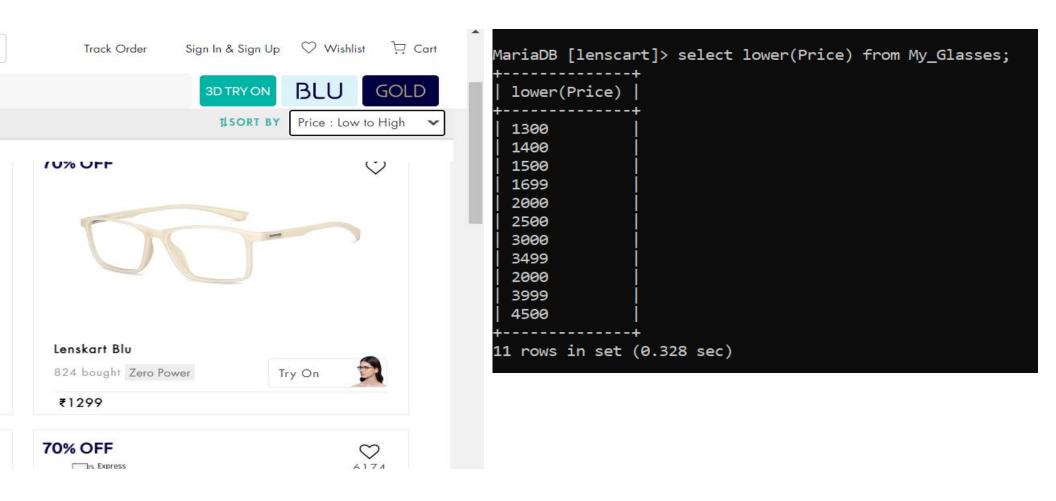
Query: select * from My_Glasses order by Price desc;

Can search for narrow sized lenses



Query: select * from My_Glasses where Frame_Size="Narrow";

Apply filter for Low to High price;



Query: select lower(Price) from My_Classes;

Cross Join of Glass and Frames

ariaDB [lenscart]> select * from Glass cross join Frames;								
ID	Glass_Types	Glass_Color	Supported_Powers	ID	Frame_Material	Weight_Group	Frame_Color	
1 1	Eyeglasses	Grey	Upto Low Power	1	TR90	Light	Red	
1	Eyeglasses	Grey	Upto Low Power	2	Stainless Steel	Average	Green	
1	Eyeglasses	Grey	Upto Low Power	3	Acetate	Feather Light	Rose Gold	
1	Eyeglasses	Grey	Upto Low Power	5	Titanium	Above Average	Transparent	
2	Computer Eyeglasses	Green	Upto Medium Power	1	TR90	Light	Red	
2	Computer Eyeglasses	Green	Upto Medium Power	2	Stainless Steel	Average	Green	
2	Computer Eyeglasses	Green	Upto Medium Power	3	Acetate	Feather Light	Rose Gold	
2	Computer Eyeglasses	Green	Upto Medium Power	5	Titanium	Above Average	Transparent	
3	Sunglasses	Yellow	Upto High Power	1	TR90	Light	Red	
3	Sunglasses	Yellow	Upto High Power	2	Stainless Steel	Average	Green	
3	Sunglasses	Yellow	Upto High Power	3	Acetate	Feather Light	Rose Gold	
3	Sunglasses	Yellow	Upto High Power	5	Titanium	Above Average	Transparent	
4	Sports Eyeglasses	Brown	Upto Very High Power	1	TR90	Light	Red	
4	Sports Eyeglasses	Brown	Upto Very High Power	2	Stainless Steel	Average	Green	
4	Sports Eyeglasses	Brown	Upto Very High Power	3	Acetate	Feather Light	Rose Gold	
4	Sports Eyeglasses	Brown	Upto Very High Power	5	Titanium	Above Average	Transparent	
5	Progressive	Transparent	Zero Power	1	TR90	Light	Red	
5	Progressive	Transparent	Zero Power	2	Stainless Steel	Average	Green	
5	Progressive	Transparent	Zero Power	3	Acetate	Feather Light	Rose Gold	
5	Progressive	Transparent	Zero Power	5	Titanium	Above Average	Transparent	
+		+		+	+	+	+	

20 rows in set (0.001 sec)

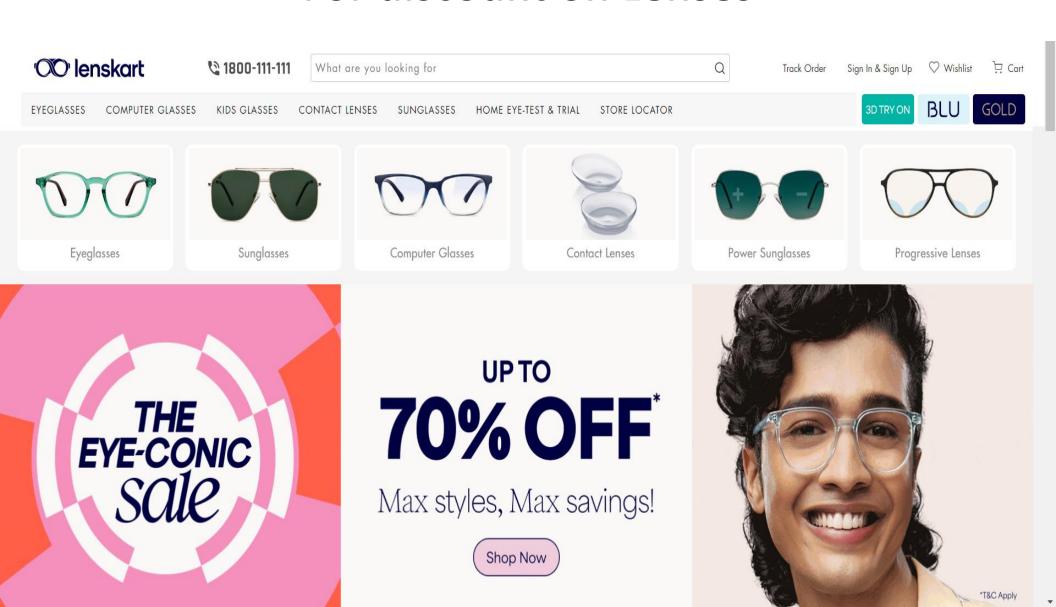
Query: select * from Glass cross join Frames;

Inner join query for same color of Glass and Frame

```
MariaDB [lenscart]> select * from Glass inner join Frames on(Glass.Glass_Color=Frames.Frame_Color);
                        Glass_Color | Supported_Powers | ID | Frame_Material | Weight_Group | Frame_Color
       Glass_Types
       Computer Eyeglasses | Green
                                       Upto Medium Power 2 Stainless Steel Average
                                                                                                  Green
       Progressive
                           Transparent | Zero Power
                                                              5 | Titanium
                                                                                  | Above Average | Transparent
2 rows in set (0.001 sec)
MariaDB [lenscart]> _
```

```
Query: select * from Glass inner join Frames on(Glass.Glass_Color=Frames.Frame_Color
```

For discount on Lenses



ariaDB [lenscart]> select	Glass_Types,	Frame_Shape,Fra	ame_Color,Brand	s,Frame_Size,Ge	nder,Pric	e,Price*	70/100 as "70% (discount" from My_Glasses
Glass_Types	Frame_Shape	Frame_Color	Brands	Frame_Size	Gender	Price	70% discount	
Eyeglasses	Square	Grey	Vincent	Narrow	Unisex	1300	910	,
Computer Glasses	Round	Blue	Hooper	Extra Narrow	Kid	1400	980	
Progressive Eyeglasses	Cet Eye	Red	Lenscart Blu	Medium	Men	1500	1050	
Sunglasses	Aviator	Tortoise	Jhon Jacobs	Wide	Women	1699	1189.3	
Power Sunglasses	Hexagonal	Maroon	Jhon Jacobs	Wide	Men	2000	1400	
Kids Eyeglasses	Rectangle	Transparent	Kid Zania	Narrow	Men	2500	1750	
Computer Glasses	Oval	Rose Gold	Lenscart Blu	Narrow	Women	3000	2100	
Computer Glasses	Geometric	Black	Hooper	Extra Wide	Men	3499	2449.3	
Reading Eyeglasses	Square	Transparent	Vincent	Medium	Unisex	2000	1400	
Progressive Eyeglasses	Square	Pink	Vincent	Medium	Women	3999	2799.3	
Sunglasses	Square	Sky blue	Jhon Jacobs	Narrow	Unisex	4500	3150	

11 rows in set (0.001 sec)

Query:

select Glass_Types,Frame_Shape,Frame_Color,Brands,Frame_Size,Gender,Price,Price*70/100 as "70% discount" from My_Glasses;

Thank You!!