MySQL Views, Conditional Statements (LAB Lecture)

Department of Information Technology
Database Systems II (IT226)
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Lecturer: Soma Soleimanzadeh

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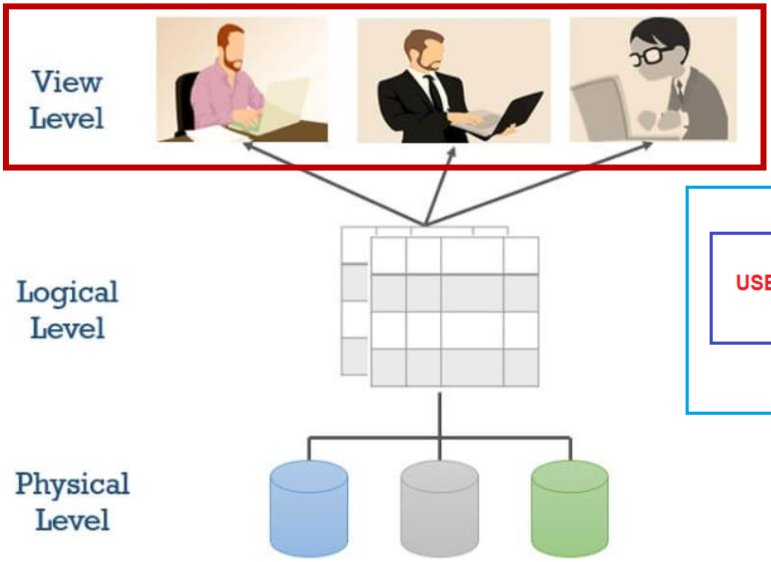
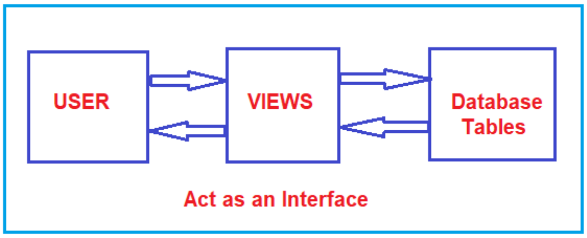
View in Database





Syntax of Creating View in MySQL

```
CREATE  VIEW  view_name   AS
        SELECT  column_names
        FROM   table_name
        WHERE  condition;
```

- How to see the data in the view?

```
        SELECT  *  FROM  view_name;
```

PID	PName	Price
1	Laptop	2000
2	External Hard Disk	**200**
3	Mouse	**20**
4	Printer	1100
5	Keyboard	**40**

Let’s Try It! (Creating Database and Tables)

- First Create a Database named **shop** and activate it.
- Then create the following two tables and enter the data inside each.
  - Both **PID** and **orderID** are ***auto_increment***.
  - Enable both **UPDATE and DELETE** cascades for the foreign key.

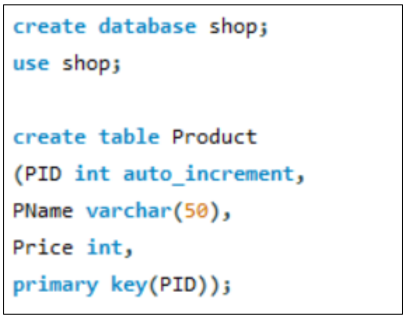
Product

PID	**PName**	**Price**
1	Laptop	2000
2	External HDD	**200**
3	Keyboard	**40**

Orders

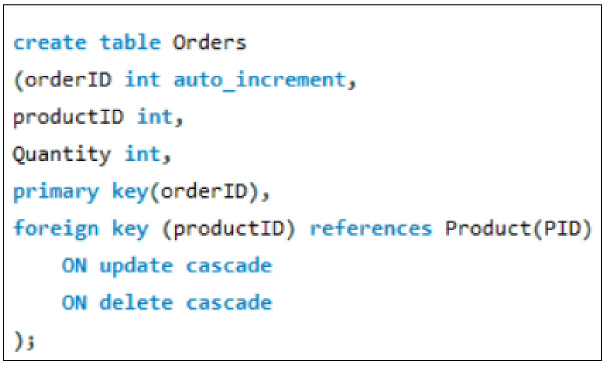
orderID	**productID**	**Quantity**
1	3	25
2	3	100
3	2	10

Answer – Creating Database and Tables



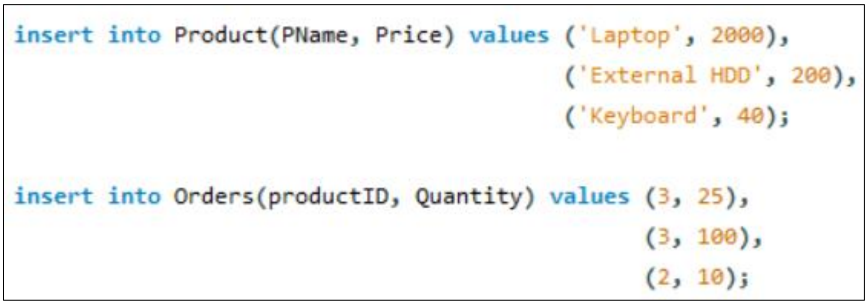
```
create database shop;
use shop;

create table Product
(PID int auto_increment,
PName varchar(50),
Price int,
primary key(PID));
```



```
create table Orders
(orderID int auto_increment,
productID int,
Quantity int,
primary key(orderID),
foreign key (productID) references Product(PID)
    ON update cascade
    ON delete cascade
);
```

Answer – Entering Data inside Tables



```
insert into Product(PName, Price) values ('Laptop', 2000),
                                         ('External HDD', 200),
                                         ('Keyboard', 40);

insert into Orders(productID, Quantity) values (3, 25),
                                               (3, 100),
                                               (2, 10);
```

Let's Try It! (Creating View)

- Create a view named **lowPrice** to find the **ID** and **name** of products **priced less than $300**.

```
CREATE VIEW lowPrice AS
        SELECT PID, PName
        FROM Product
        WHERE Price < 300;
```

Product

PID	PName	Price
1	Laptop	2000
2	External HDD	**200**
3	Keyboard	**40**

```
SELECT * FROM lowPrice;
```

→

lowPrice

PID	PName
2	External HDD
3	Keyboard

Let’s Try It! (Creating View)

- Create a view named **highQuantity** to find the **orderID** and **name** of products **that their ordered quantity is greater than 50**.

Product

PID	PName	Price
1	Laptop	2000
2	External HDD	**200**
3	Keyboard	**40**

Order

orderID	productID	Quantity
1	3	25
2	3	100
3	2	10

```
CREATE  VIEW  highQuantity  AS
          SELECT  orderID, PName
          FROM   Product, Order
          WHERE  Product.PID = Order.productID  AND  Quantity > 50;


SELECT  *  FROM  highQuantity;
```

→

highQuantity

orderID	PName
2	Keyboard

Syntax of CASE Statement in MySQL

```
CASE
      WHEN  condition1  THEN  result1
      WHEN  condition2  THEN  result2
      …
      WHEN  conditionN  THEN  resultN
      ELSE  result
END;
```

Let's Try Using CASE Statement!

- Write a query to show the following output according to the given conditions:

Conditions

Price ≥ 900 → PriceLevel : '**Expensive**'

200 ≤ Price < 900 → PriceLevel : '**Reasonable**'

0 ≤ Price < 200 → PriceLevel : '**Cheap**'

Price < 0 → PriceLevel : '**Wrong Price**'

Product

PID	PName	Price
1	Laptop	2000
2	External HDD	200
3	Keyboard	40

Output

PName	Price	PriceLevel
Laptop	2000	Expensive
External HDD	200	Reasonable
Keyboard	40	Cheap

Answer

```
SELECT  Pname, Price,
        CASE
                WHEN  Price >= 900  THEN  'Expensive'
                WHEN  Price >=200  AND  Price < 900  THEN  'Reasonable'
                WHEN  Price >= 0  AND  Price < 200  THEN  'Cheap'
                ELSE  'Wrong Price'
        END  AS  PriceLevel
 FROM  Product;
```

Product

PID	PName	Price
1	Laptop	2000
2	External HDD	200
3	Keyboard	40

PName	Price	PriceLevel
Laptop	2000	Expensive
External HDD	200	Reasonable
Keyboard	40	Cheap