

# SQL Practice Questions-Inner & Natural Join

## Pre-requisites :

Create Two tables *products* and *vendors* . Also insert few records into these table.

Please find the SQL queries for the same on next page.



## Create products Table

```
CREATE TABLE products (  
  prod_id char(10) NOT NULL,  
  vend_id char(10),  
  prod_name char(255) NOT NULL,  
  prod_price decimal(8,2) NOT NULL,  
  prod_desc text,  
  PRIMARY KEY (prod_id),  
  FOREIGN KEY (vend_id) REFERENCES vendors (vend_id)  
);
```

## Insert data into products Table

```
INSERT INTO Products(prod_id, vend_id, prod_name, prod_price, prod_desc)  
VALUES('BR01', 'BRS01', '8 inch teddy bear', 5.99, '8 inch teddy bear, comes with cap and jacket'),  
( 'BR02', NULL, '12 inch teddy bear', 8.99, '12 inch teddy bear, comes with cap and jacket'),  
( 'BR03', 'BRS01', '18 inch teddy bear', 11.99, '18 inch teddy bear, comes with cap and jacket'),  
( 'BNBG01', 'DLL01', 'Fish bean bag toy', 3.49, 'Fish bean bag toy, complete with bean bag worms with which to feed it'),  
( 'BNBG02', 'DLL01', 'Bird bean bag toy', 3.49, 'Bird bean bag toy, eggs are not included'),  
( 'BNBG03', NULL, 'Rabbit bean bag toy', 3.49, 'Rabbit bean bag toy, comes with bean bag carrots'),  
( 'RGAN01', 'DLL01', 'Raggedy Ann', 4.99, '18 inch Raggedy Ann doll'),  
( 'RYL01', 'FNG01', 'King doll', 9.49, '12 inch king doll with royal garments and crown'),  
( 'RYL02', 'FNG01', 'Queen doll', 9.49, '12 inch queen doll with royal garments and crown');
```



## Create vendors Table

```
CREATE TABLE vendors (  
  vend_id char(10) NOT NULL,  
  vend_name char(50) NOT NULL,  
  vend_address char(50) ,  
  vend_city char(50),  
  vend_state char(5),  
  vend_zip char(10),  
  vend_country char(50),  
  PRIMARY KEY (vend_id)  
),
```

## Insert data into vendors Table

```
Vendors(vend_id, vend_name, vend_address, vend_city, vend_state, vend_zip, vend_country)  
( 'BRS01', 'Bears R Us', '123 Main Street', 'Bear Town', 'MI', '44444', 'USA'),  
( 'BRE02', 'Bear Emporium', '500 Park Street', 'Anytown', 'OH', '44333', 'USA'),  
( 'DLL01', 'Doll House Inc.', '555 High Street', 'Dollsville', 'CA', '99999', 'USA'),  
( 'FRB01', 'Furball Inc.', '1000 5th Avenue', 'New York', 'NY', '11111', 'USA'),  
( 'FNG01', 'Fun and Games', '42 Galaxy Road', 'London', NULL, 'N16 6PS', 'England'),  
( 'JTS01', 'Jouets et ours', '1 Rue Amusement', 'Paris', NULL, '45678', 'France'),
```



# Questions

- 1) Write SQL query to retrieve the product ID, product name, and vendor name from the "Products" table and "Vendors" table, sorted in ascending order by product ID?
- 2) Write SQL query to retrieve the product ID, product name, vendor name, and vendor country for products sold by vendors in the USA, sorted by product ID?
- 3) Write SQL query to retrieve the product ID, product name, vendor name, and product price from the "Products" table, joined with the "Vendors" table, where the product price is less than 5, and the results are sorted by the product ID? (Use Natural Join)



- 4) Write SQL query to retrieve the product ID, vendor ID, and vendor city for all products, sorted by the vendor ID?
- 5) Write SQL query to retrieve vendor name and calculates the total amount of products sold by each vendor as “total\_amount”. Sorts the results in ascending order based on the total amount?

Expected Output

vend_name	total_amount
Doll House Inc.	11.97
Bears R Us	17.98
Fun and Games	18.98

6) Write SQL query to retrieve vendor name and calculate total amount including 5% GST for each vendor's products as "total\_amount\_GST\_5"? Can you provide the result in ascending order based on the total amount?

Expected Output

vend_name	total_amount_GST_5
Doll House Inc.	12.5685
Bears R Us	18.8790
Fun and Games	19.9290

7) Write SQL query to retrieve the product ID, vendor ID, product name, vendor name, and product price from the "Products" table, joined with the "vendors" table, where the vendor ID ends with '01' and the product price is greater than 4?



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