

```
DROP TABLE IF EXISTS brands;
```

```
CREATE TABLE brands
```

```
(  
    brand1    VARCHAR(20),  
    brand2    VARCHAR(20),  
    year      INT,  
    custom1   INT,  
    custom2   INT,  
    custom3   INT,  
    custom4   INT  
);
```

```
INSERT INTO brands VALUES ('apple', 'samsung', 2020, 1, 2, 1, 2);
```

```
INSERT INTO brands VALUES ('samsung', 'apple', 2020, 1, 2, 1, 2);
```

```
INSERT INTO brands VALUES ('apple', 'samsung', 2021, 1, 2, 5, 3);
```

```
INSERT INTO brands VALUES ('samsung', 'apple', 2021, 5, 3, 1, 2);
```

```
INSERT INTO brands VALUES ('google', NULL, 2020, 5, 9, NULL, NULL);
```

```
INSERT INTO brands VALUES ('oneplus', 'nothing', 2020, 5, 9, 6, 3);
```

```
SELECT * FROM brands;
```

Solution

```
SELECT * FROM brands;
```

```
/* Create a pair identifier */
```

```
SELECT *, CONCAT(brand1, brand2, year) AS pair_id
```

```
FROM brands;
```

```
/* However, my pair IDs are not unique. 'applesamsung2020' and 'samsungapple2020' should share the same identifier */
```

```
/* Now that I have the pair identifier, let me ensure its uniqueness for the same year */
```

```
SELECT *,
```

```
/* This comparison will only consider the first letter of the characters */
```

```
CASE WHEN brand1 < brand2 THEN CONCAT(brand1, brand2, year)
```

```
    ELSE CONCAT(brand2, brand1, year) END AS pair_id
```

```
FROM brands;
```

Final solution

```

/* I can now use the WITH CLAUSE and include additional details to filter out entries that are not needed */
WITH cte AS (
  SELECT *,
    CASE WHEN brand1 < brand2 THEN CONCAT(brand1, brand2, year)
    ELSE CONCAT(brand2, brand1, year) END AS pair_id
  FROM brands),
cte_row_number AS (
  SELECT *,
    ROW_NUMBER() OVER(PARTITION BY pair_id ORDER BY pair_id) AS rn
  FROM cte)
SELECT brand1, brand2, year, custom1, custom2, custom3, custom4
FROM cte_row_number
WHERE rn = 1
OR (custom1 <> custom3 AND custom2 <> custom4);

```

Results

brand1	brand2	year	custom1	custom2	custom3	custom4
google	NULL	2020	5	9	NULL	NULL
apple	samsung	2020	1	2	1	2
apple	samsung	2021	1	2	5	3
samsung	apple	2021	5	3	1	2
oneplus	nothing	2020	5	9	6	3