FLASHBACK: SO FAR WE HAVE SEEN QUERIES AS STANDALONE COMMANDS THAT FETCH DATA FROM A DATABASE

BUT IN REALITY, QUERIES ARE PRETTY PLUG-AND-PLAY

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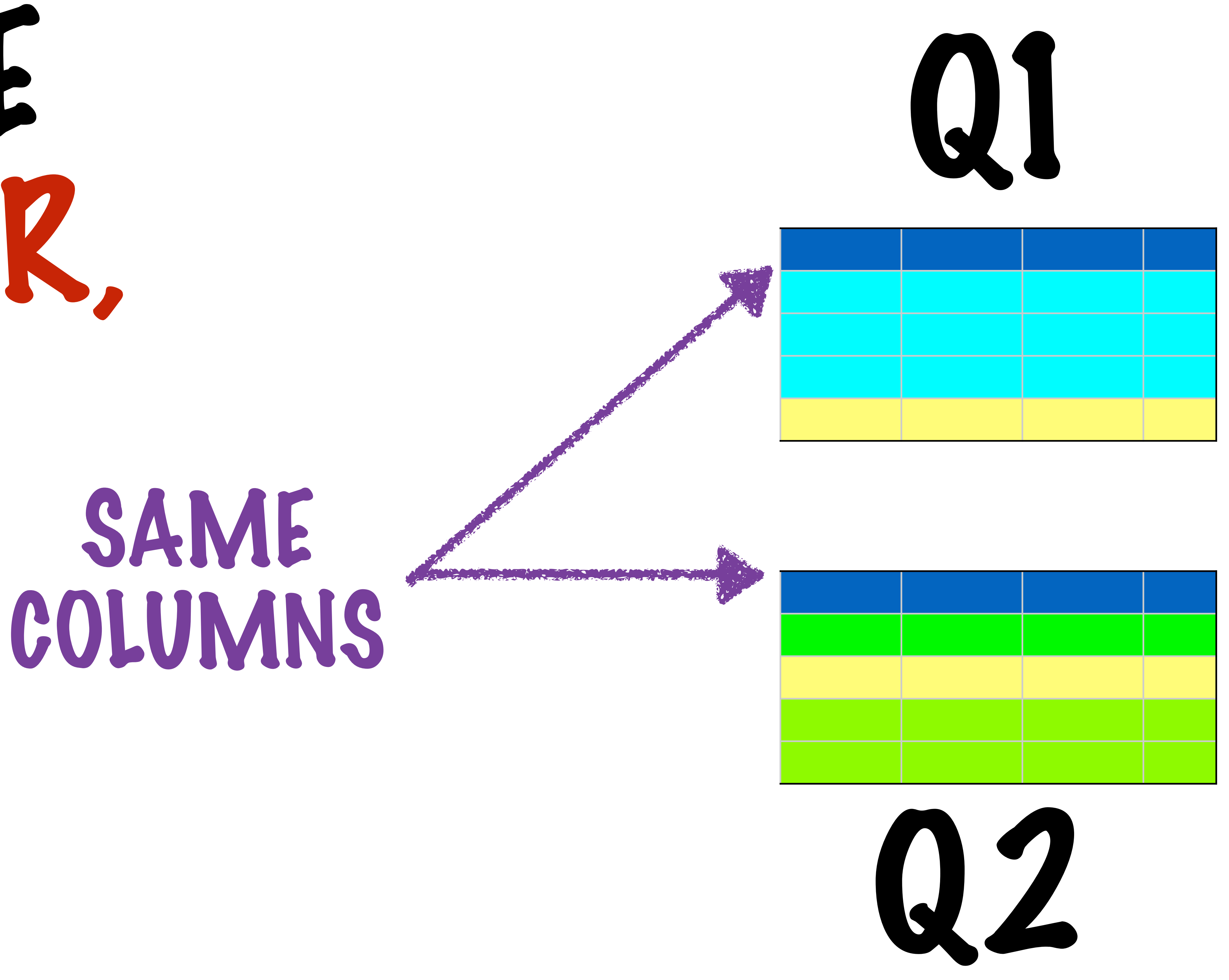

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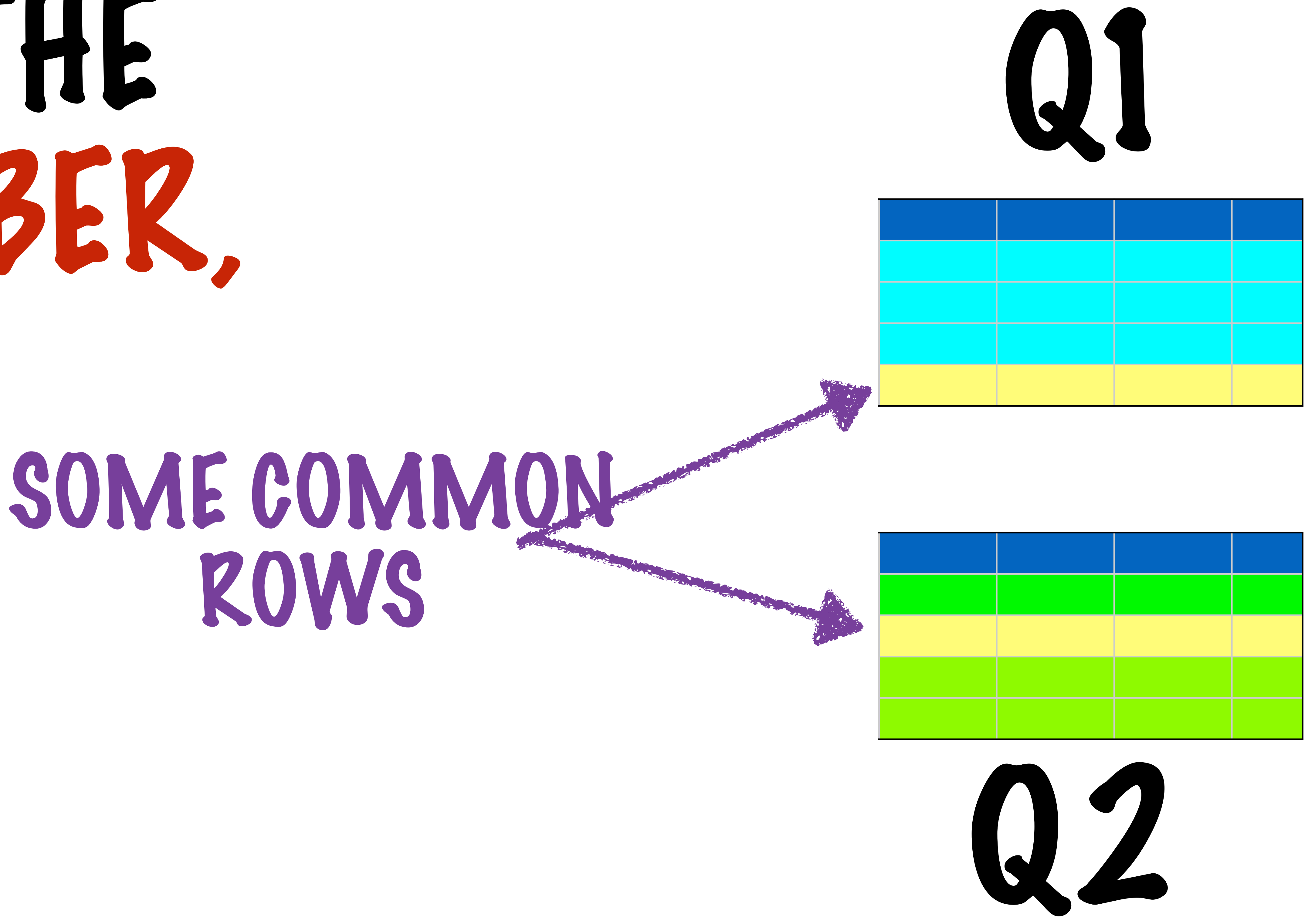

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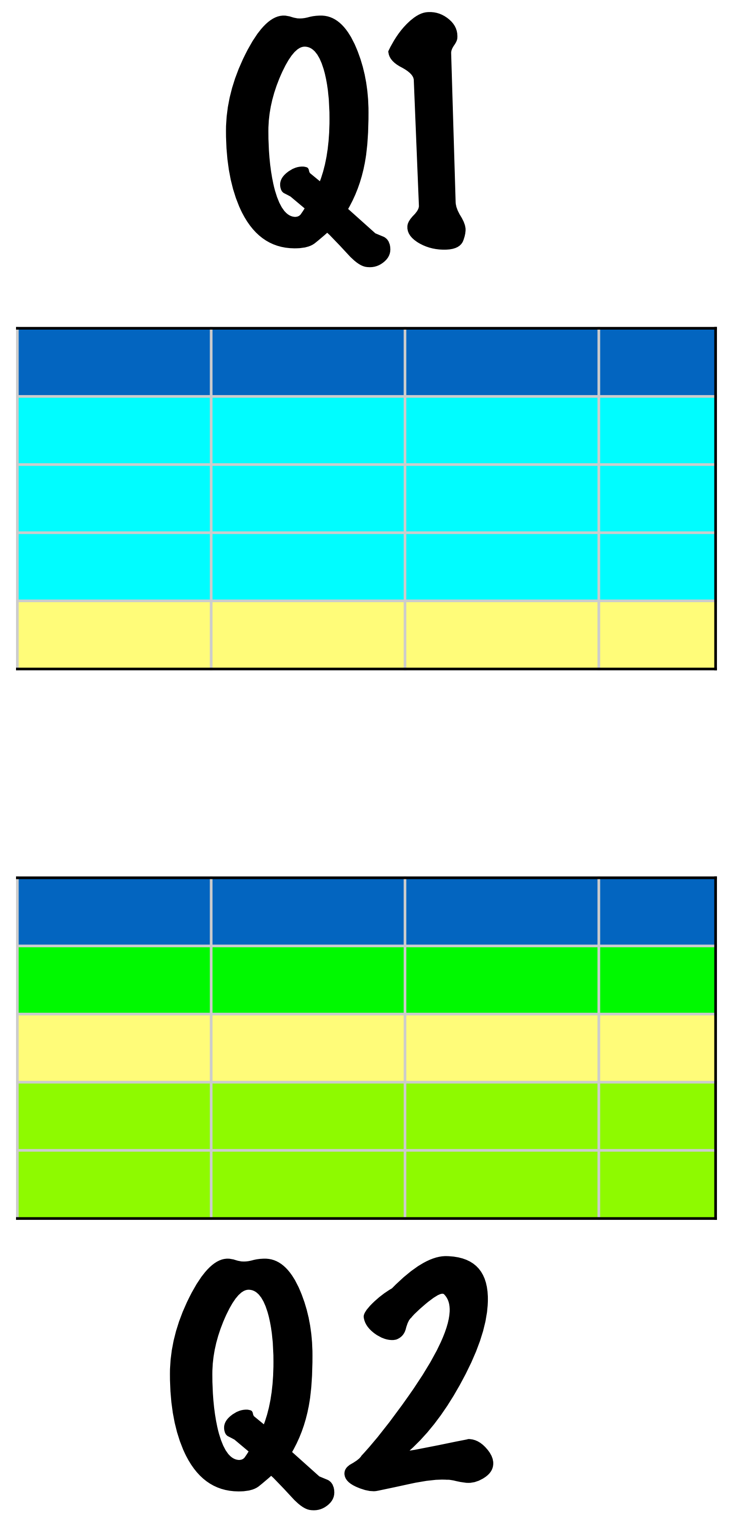

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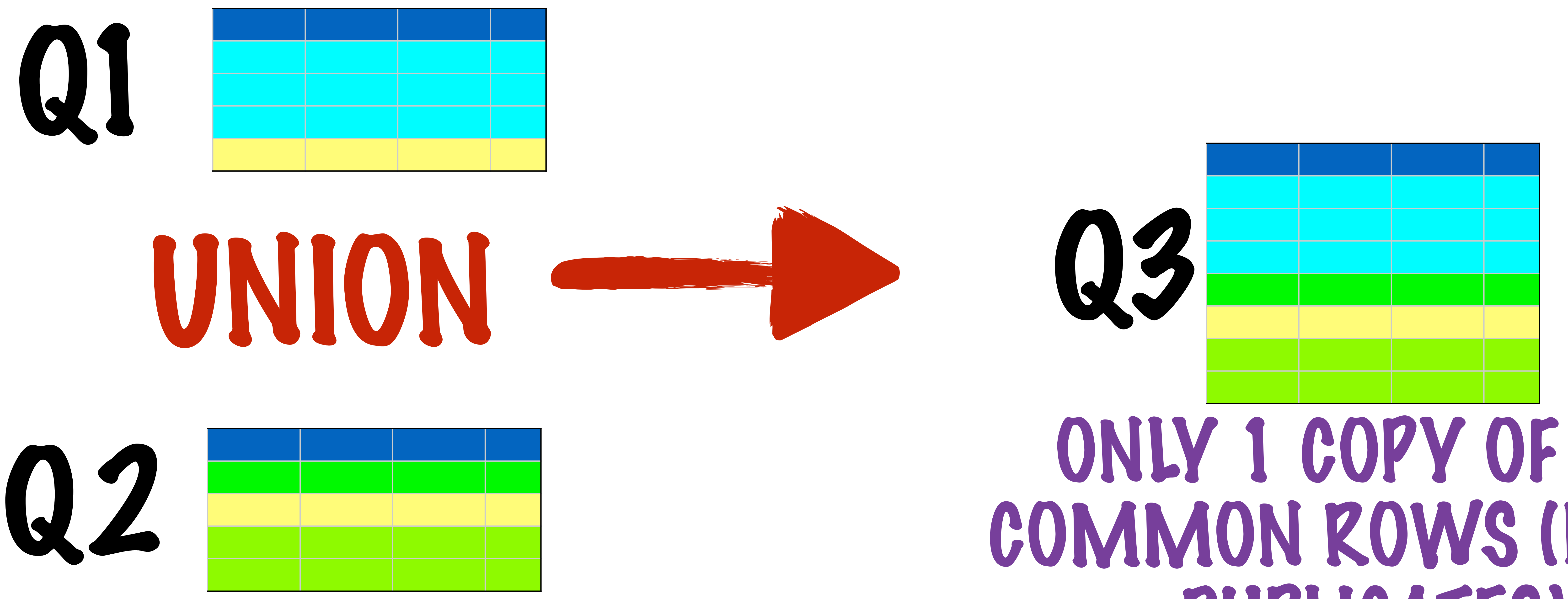

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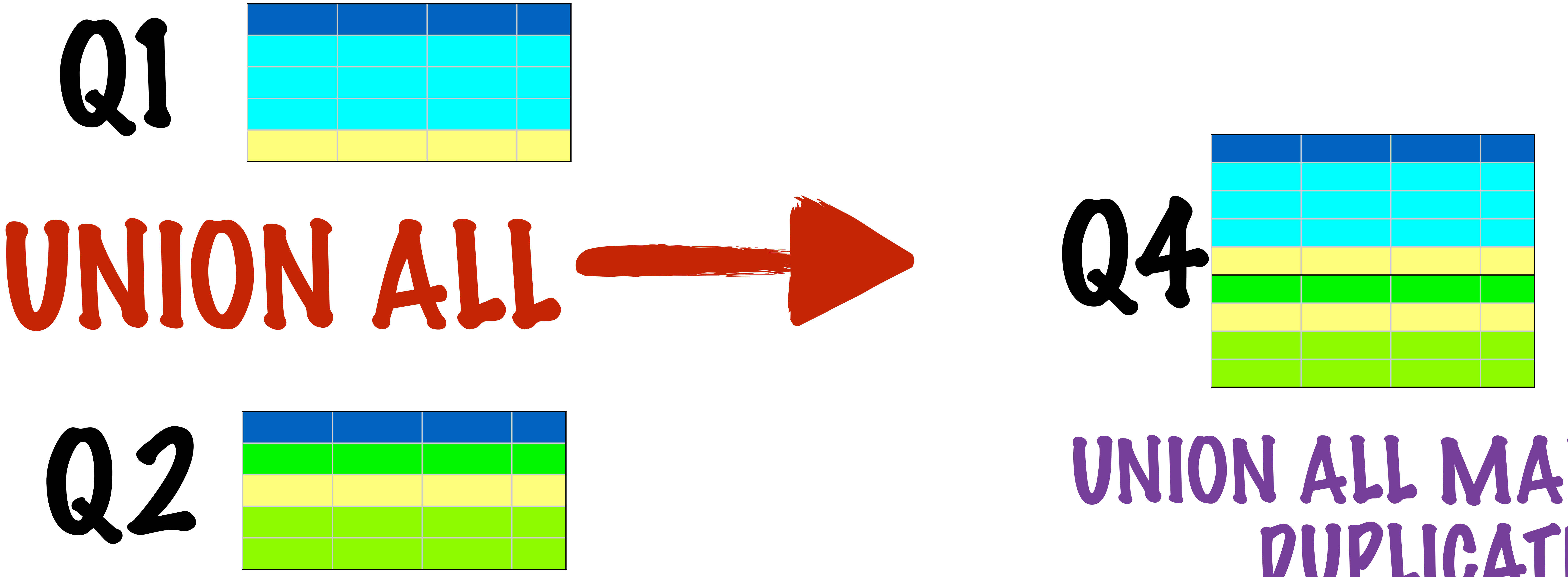

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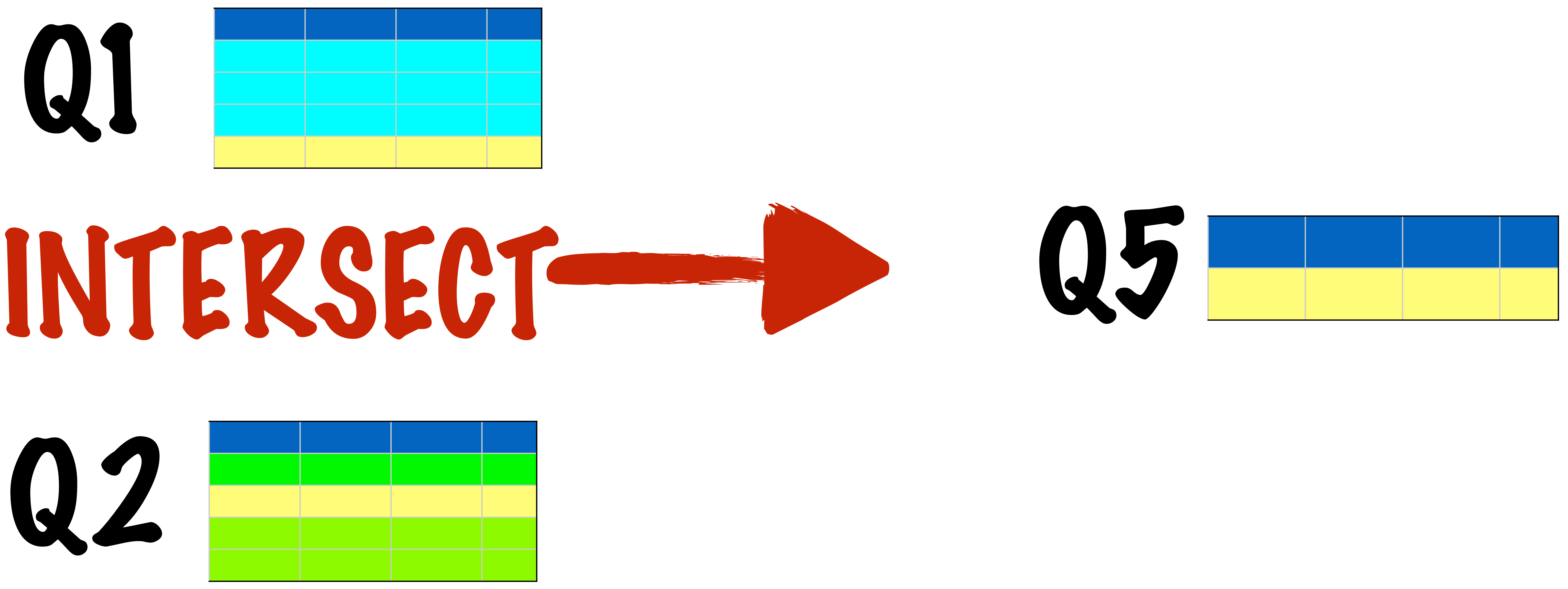

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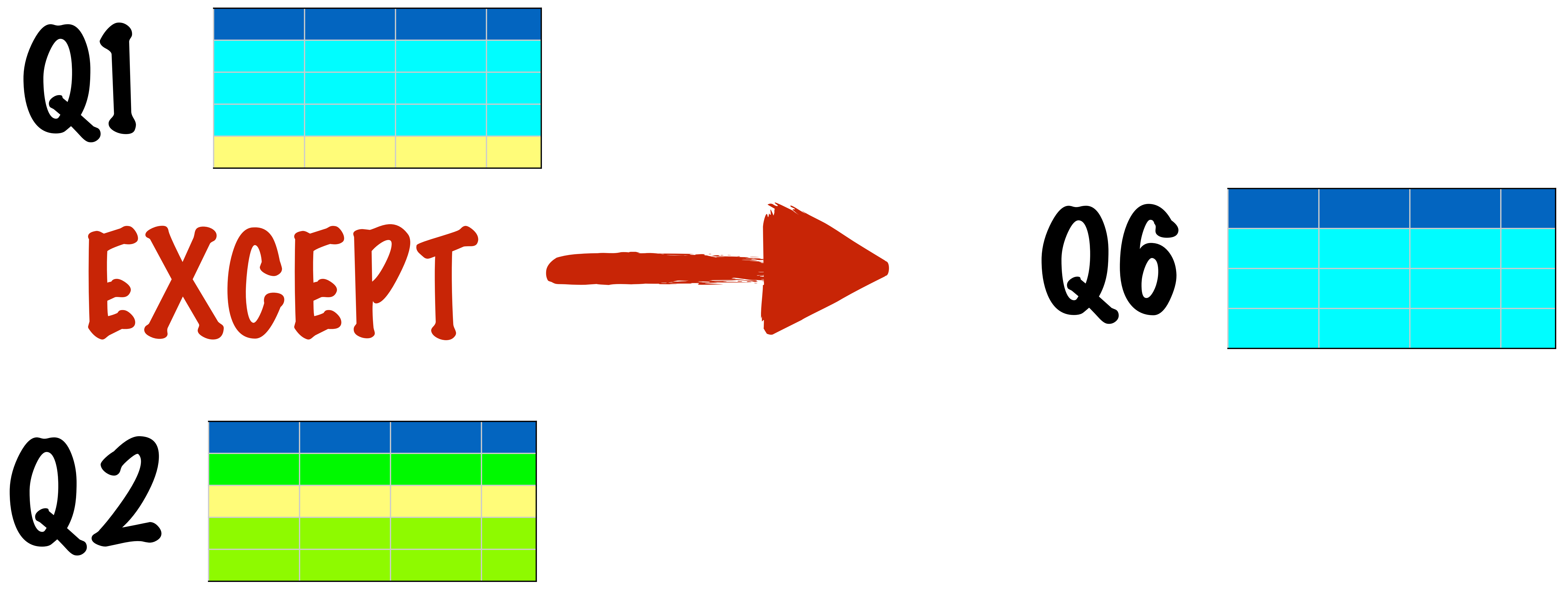

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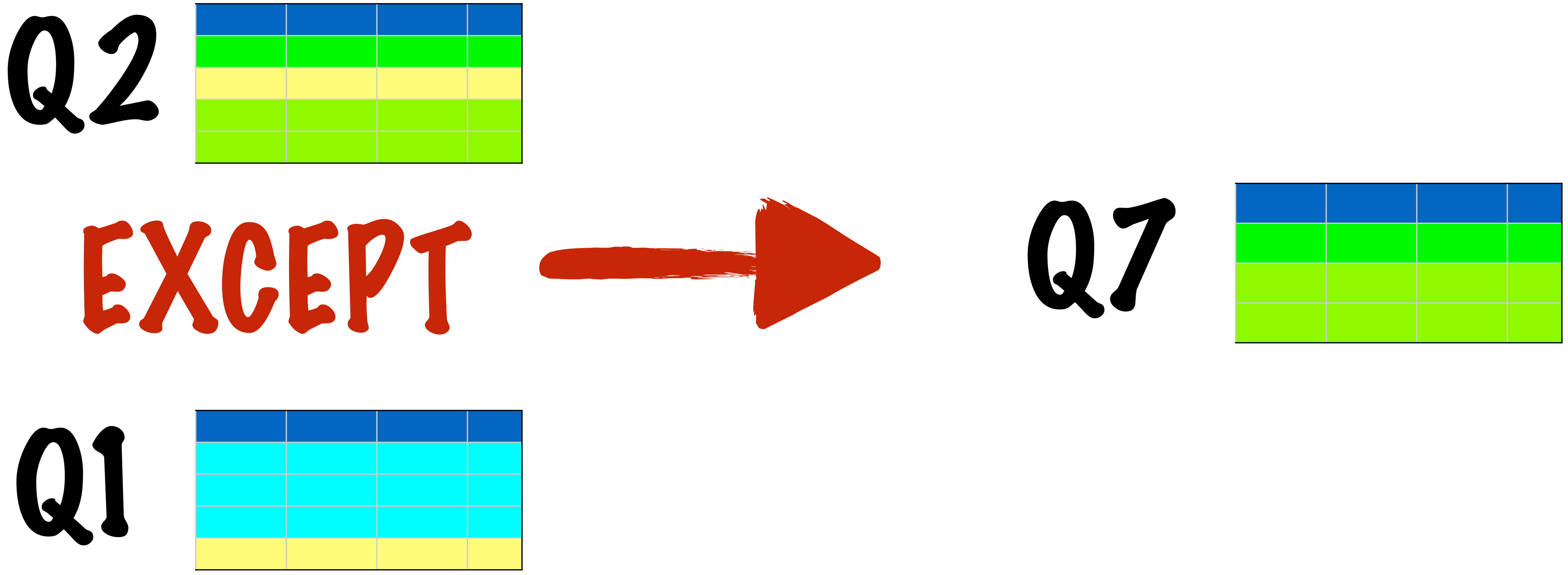

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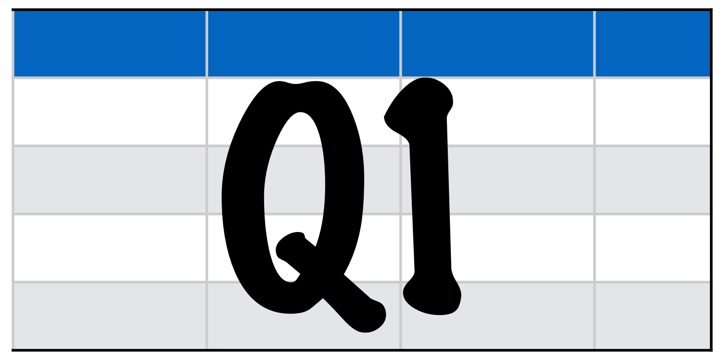

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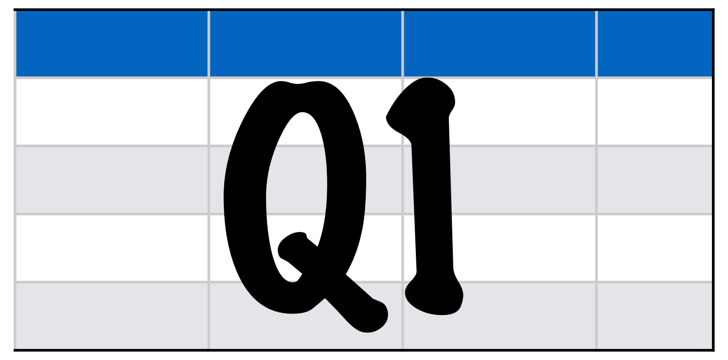

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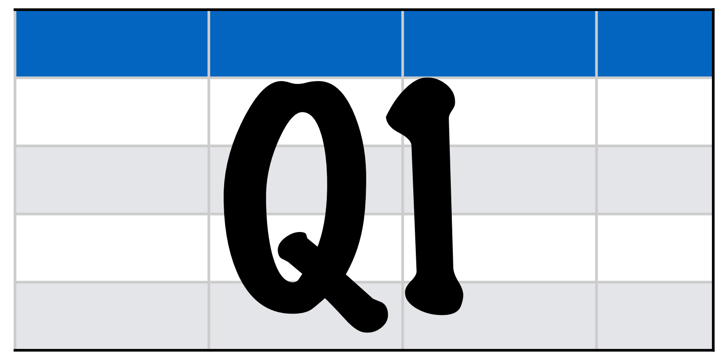

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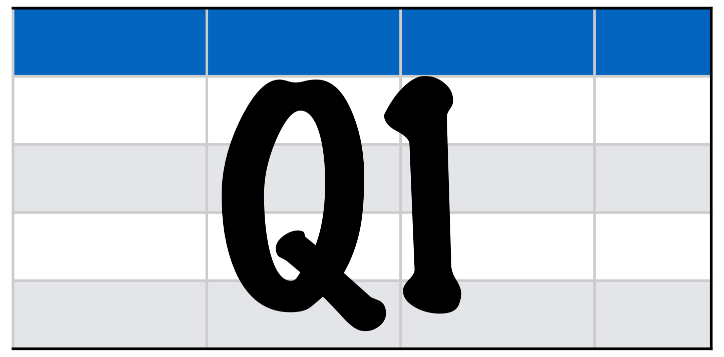

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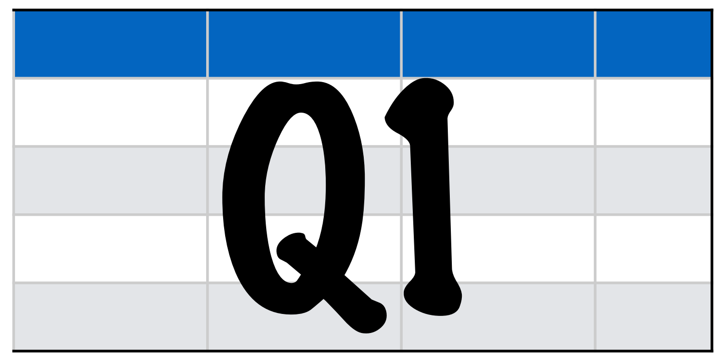

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NOW, UNION, INTERSECTION AND DIFFERENCE ARE SET OPERATIONS

SO, BY DEFAULT, UNION WILL ELIMINATE DUPLICATES

BUT SQL HAS UNION ALL TO KEEP DUPES

ALSO THE INDIVIDUAL QUERIES IN A UNION CAN NOT USE ORDER BY ← ELEMENTS OF A SET ARE NOT ORDERED

# WE COULD CALCULATE THE UNION, INTERSECTION OR DIFFERENCE OF 2 QUERIES

PET OWNERS

| AptNumber | Name |
|---|---|
| 123 | John |
| 345 | Tim |
| 349 | Nikhil |
| 567 | Bilal |

SAME COLUMNS (NUMER, ORDER AND TYPE - NAMES COULD DIFFER)

APT OWNERS

| FlatNumber | Name |
|---|---|
| 234 | Mary |
| 567 | Bilal |
| 897 | Alan |
| 903 | Ellen |

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PET OWNERS

| AptNumber | Name |
|---|---|
| 123 | John |
| 345 | Tim |
| 349 | Nikhil |
| 567 | Bilal |

1 COMMON ROW

APT OWNERS

| FlatNumber | Name |
|---|---|
| 234 | Mary |
| 567 | Bilal |
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| 903 | Ellen |

## WE COULD CALCULATE THE UNION, INTERSECTION OR DIFFERENCE OF 2 QUERIES

```
(SELECT APTNUMBER,
NAME FROM PetOwners)
```

**UNION**

```
(SELECT FLATNUMBER AS
APTNUMBER, NAME FROM
AptOwners);
```

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APT OWNERS

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# WE COULD CALCULATE THE UNION, INTERSECTION OR DIFFERENCE OF 2 QUERIES

```
(SELECT APTNUMBER, NAME FROM
  PetOwners ORDER BY NAME)
```

**UNION**

**WON'T WORK!!**

```
(SELECT FLATNUMBER AS
APTNUMBER, NAME FROM
AptOwners ORDER BY NAME);
```

PET OWNERS

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APT OWNERS

| FlatNumber | Name |
|---|---|
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# WE COULD CALCULATE THE UNION, INTERSECTION OR DIFFERENCE OF 2 QUERIES

## THIS IS FINE!

```
((SELECT
APTNUMBER, NAME
FROM PetOwners)
UNION
(SELECT FLATNUMBER AS
APTNUMBER, NAME FROM
AptOwners)) Order by
APTNUMBER;
```

PET OWNERS

| AptNumber | Name |
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APT OWNERS

| FlatNumber | Name |
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