**sms\_sends table**

| **column** | **type** |
| --- | --- |
| ds | datetime |
| country | string |
| carrier | string |
| phone\_number | integer |
| type | string |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 0 | rogers | Guinea-Bissau | 2020-08-17T03:22:53Z | 001-890-853-0288x3664 | confirmation |
| 1 | rogers | Luxembourg | 2020-03-11T00:15:05Z | (216)929-2758x075 | friend\_request |
| 2 | verizon | Trinidad and Tobago | 2020-06-20T03:42:25Z | +1-481-307-1156x6846 | message |
| 3 | at&t | Jordan | 2020-09-07T11:14:56Z | (937)026-8609 | friend\_request |
| 4 | sprint | Azerbaijan | 2020-05-08T04:03:12Z | 001-888-857-7136 | confirmation |

**confirmers table**

| **column** | **type** |
| --- | --- |
| date | datetime |
| phone\_number | integer |
| **index** | **date** | **phone\_number** |
| 0 | 2020-08-17T03:22:53Z | 001-890-853-0288x3664 |
| 1 | 2020-05-08T04:03:12Z | 001-888-857-7136 |
| 2 | 2020-06-23T00:11:15Z | +1-868-242-1146x4456 |
| 3 | 2020-07-27T20:01:01Z | 1444434504 |
| 4 | 2020-01-29T00:30:55Z | 9021353406 |
| 5 | 2020-01-18T09:28:53Z | 001-299-199-9252x118 |
| 6 | 2020-01-29T15:05:36Z | 1684537177 |
| 7 | 2020-09-18T14:36:21Z | (148)794-7465x2039 |
| 8 | 2020-11-21T23:05:41Z | 128.279.1933x3530 |

Q) Write a query to Calculate number of UNIQUE phone numbers that were sent as confirmation texts to on Feb 28th 2020 by carrier and country

**Example:**

| **columns** | **type** |
| --- | --- |
| carrier | string |
| country | string |
| unique\_numbers | int |

select count(distinct phone\_number) from confirmers

where day(date) = 28 and month(date) = 02 and year(date) = 2020

3🡪 is the answer for above if you want to know more details then run the query below

SELECT carrier, country, COUNT(DISTINCT phone\_number)

FROM sms\_sends

WHERE type = 'confirmation'

AND ds BETWEEN '2020-02-28 00:00:00' AND '2020-02-28 23:59:59'

GROUP BY 1,2;

|  |  |  |
| --- | --- | --- |
| at&t | Sweden | 1 |
| rogers | Netherlands Antilles | 1 |
| sprint | United Kingdom | 1 |

Q)  Calculate what percentage of users were confirmed per day.

**% of users confirmed per day = no of confirmation texts sent / no of confirmation texts confirmed**

We need distinct phone numbers here not the distinct texts sent

Texts sent confirmed on same day (as timeframe not specified)

LEFT JOIN 🡪 get phone number and date 🡪 we can get confirmations on same day

SELECT ss.ds

, COUNT(DISTINCT c.phone\_number)/COUNT(DISTINCT ss.phone\_number)

FROM **sms\_sends** AS ss

**LEFT JOIN** **confirmers** AS c

ON ss.phone\_number = c.phone\_number

AND ss.ds = c.date

WHERE type = **'confirmation'**

GROUP BY 1

|  |  |
| --- | --- |
| 2020-01-02T19:38:37Z | 1.0000 |
| 2020-01-06T09:42:31Z | 1.0000 |
| 2020-01-08T08:48:56Z | 1.0000 |
| 2020-01-08T18:38:59Z | 1.0000 |
| 2020-01-11T06:34:46Z | 1.0000 |