2. Crypto Market Transactions Monitoring

As part of a cryptocurrency trade monitoring platform, create a query to return a list of suspicious transactions.

Suspicious transactions are defined as:

- a series of two or more transactions occur at intervals of an hour or less
- they are from the same sender
- the sum of transactions in a sequence is *150* or greater

A sequence of suspicious transactions may occur over time periods greater than one hour. As an example, there are 5 transactions from one sender for 30 each. They occur at intervals of less than an hour between from 8 AM to 11 AM. These are suspicious and will all be reported as one sequence that starts at 8 AM, ends at 11 AM, with 5 transactions that sum to 150.

The result should have the following columns: *sender, sequence_start, sequence_end, transactions_count, transactions_sum*

- *sender* is the sender's address.
- *sequence_start* is the timestamp of the first transaction in the sequence.
- *sequence_end* is the timestamp of the last transaction in the sequence.
- *transactions_count* is the number of transactions in the sequence.
- *transactions_sum* is the sum of transaction amounts in the

sequence, to 6 places after the decimal.

Order the data ascending, first by *sender*, then by *sequence_start*, and finally by *sequence_end*.

▼ **Schema**

There is 1 table:

transactions		
name	**type**	**description**
dt	VARCHAR(19)	Transaction timestamp
sender	VARCHAR(49)	Sender address
recipient	VARCHAR(49)	Recipient address
amount	DECIMAL(9,6)	Transaction amount

▼ **Sample Data Tables**

For the sample data in tables:

		transactions
dt	**sender**	**recipier**
2021-07-24 15:09:30	0xb4e92f4b58ba815f791dc6622385a00914eb03f0	0xd431c
2021-07-24 11:29:33	0x15112cc45c07d2e771ddefbea3a594d223546e59	0xedbb2
2021-07-24 18:22:35	0x15112cc45c07d2e771ddefbea3a594d223546e59	0xcf0e6
2021-07-24 20:22:15	0x15112cc45c07d2e771ddefbea3a594d223546e59	0x1b9ef

2021-07-24 03:29:30	0x0ecfdc85acd320fffd5b95d08a61bd0768026609	0xe8db8
2021-07-24 08:49:28	0x15112cc45c07d2e771ddefbea3a594d223546e59	0xe7cd0
2021-07-24 08:39:17	0x15112cc45c07d2e771ddefbea3a594d223546e59	0x0353;
2021-07-24 23:10:48	0x0ecfdc85acd320fffd5b95d08a61bd0768026609	0x6fdd2
2021-07-24 02:54:49	0x15112cc45c07d2e771ddefbea3a594d223546e59	0xa6950
2021-07-24 04:22:20	0x02df41ac455ec348da7ab1a5e4520f8917c4b41c	0x14cc6
2021-07-24 01:09:53	0x0ecfdc85acd320fffd5b95d08a61bd0768026609	0xb9b70
2021-07-24 06:49:27	0x02df41ac455ec348da7ab1a5e4520f8917c4b41c	0x54180
2021-07-24 21:32:13	0xf0a1123e6a92c849e556d4aa9ef49f798b2b7a23	0x74bfa
2021-07-24 14:33:16	0xf0a1123e6a92c849e556d4aa9ef49f798b2b7a23	0xfabf8(
2021-07-24 02:33:55	0x0ecfdc85acd320fffd5b95d08a61bd0768026609	0x49d19
2021-07-24 11:02:36	0xb4e92f4b58ba815f791dc6622385a00914eb03f0	0x80e4i

2021-07-24 12:47:15	0x15112cc45c07d2e771ddefbea3a594d223546e59	0x1da67
2021-07-24 04:03:57	0x15112cc45c07d2e771ddefbea3a594d223546e59	0x229b4
2021-07-24 12:28:00	0x15112cc45c07d2e771ddefbea3a594d223546e59	0x9ebc1
2021-07-24 06:39:08	0x02df41ac455ec348da7ab1a5e4520f8917c4b41c	0xd73a6

the expected output is:

sender ▲	sequence_start ▲
0x02df41ac455ec348da7ab1a5e4520f8917c4b41c	2021-07-24 06:39:08
0x15112cc45c07d2e771ddefbea3a594d223546e59	2021-07-24 08:39:17
0x15112cc45c07d2e771ddefbea3a594d223546e59	2021-07-24 11:29:33

transactions

ender	recipient	amount
91dc6622385a00914eb03f0	0xd431d8e9b1c4292cb68f36afe8a0fc129c3e333f	29.441485
1ddefbea3a594d223546e59	0xedbb2bc7b8c8d7539da5000941cbd081f1cde7aa	40.275617
1ddefbea3a594d223546e59	0xcf0e6ae9222da42524f701b116d79286072531c9	52.302129
1ddefbea3a594d223546e59	0x1b9efbae8f0e2a3e3ae8e7957ca628165f081f64	79.887726
5b95d08a61bd0768026609	0xe8db8ad08ba07bd0ecf94865341c9b293ce45ebc	64.080557
1ddefbea3a594d223546e59	0xe7cd0c36f0ca4f521f50d23c013ea61b606c7598	88.865810
1ddefbea3a594d223546e59	0x035324a8d3791e7c2704002536e0b589f90a83e3	68.711233
5b95d08a61bd0768026609	0x6fdd220b9ccdc0ba61fd7ba205fa6eabc3535991	61.848246
1ddefbea3a594d223546e59	0xa6950929dbb9309ddd8f7d8f2ba743462094a043	39.160744
a7ab1a5e4520f8917c4b41c	0x14cc6106f2119832b14cd0a94212576910b29901	48.436863
5b95d08a61bd0768026609	0xb9b70229d3ae4c347acaa5ca92e82e7fc5cdd3a5	24.515494
a7ab1a5e4520f8917c4b41c	0x541809f0de9f44dde6bdc43936ab5c545f995489	93.499378
556d4aa9ef49f798b2b7a23	0x74bfa5f31f3e1e9f0fd6ddda7b95b620fcdffff0	95.472426
556d4aa9ef49f798b2b7a23	0xfabf800fb3da10e966ed1bdb8251653e016e8c5c	44.122483
5b95d08a61bd0768026609	0x49d194a1470469902f0b15418d1a177496ac378f	81.893268
91dc6622385a00914eb03f0	0x80e489b6539deb9a7f9732fb8c6a80dbaf21e02c	72.400256
1ddefbea3a594d223546e59	0x1da67b3cf97ba80f11eccd1578cb9e604afeae38	94.324919
1ddefbea3a594d223546e59	0x229b4851ddaf796b2d7a54b17dbaf531ac4eb576	85.542132
1ddefbea3a594d223546e59	0x9ebc1faa9d07c57d97d0142622fe6e6c60c9d489	40.769475
a7ab1a5e4520f8917c4b41c	0xd73a609664f0f4420d6b2572ed01457d813bc230	82.201180

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	transactions	
dt	sender	
2021-07-24 15:09:30	0xb4e92f4b58ba815f791dc6622385a00914eb03f0	0xd431d8e9b1c4
2021-07-24 11:29:33	0x15112cc45c07d2e771ddefbea3a594d223546e59	0xedbb2bc7b8c8(
2021-07-24 18:22:35	0x15112cc45c07d2e771ddefbea3a594d223546e59	0xcf0e6ae9222da
2021-07-24 20:22:15	0x15112cc45c07d2e771ddefbea3a594d223546e59	0x1b9efbae8f0e2
2021-07-24 03:29:30	0x0ecfdc85acd320fffd5b95d08a61bd0768026609	0xe8db8ad08ba0
2021-07-24 08:49:28	0x15112cc45c07d2e771ddefbea3a594d223546e59	0xe7cd0c36f0ca4
2021-07-24 08:39:17	0x15112cc45c07d2e771ddefbea3a594d223546e59	0x035324a8d379
2021-07-24 23:10:48	0x0ecfdc85acd320fffd5b95d08a61bd0768026609	0x6fdd220b9ccd(
2021-07-24 02:54:49	0x15112cc45c07d2e771ddefbea3a594d223546e59	0xa6950929dbb9
2021-07-24 04:22:20	0x02df41ac455ec348da7ab1a5e4520f8917c4b41c	0x14cc6106f2119
2021-07-24 01:09:53	0x0ecfdc85acd320fffd5b95d08a61bd0768026609	0xb9b70229d3ae
2021-07-24 06:49:27	0x02df41ac455ec348da7ab1a5e4520f8917c4b41c	0x541809f0de9f4
2021-07-24 21:32:13	0xf0a1123e6a92c849e556d4aa9ef49f798b2b7a23	0x74bfa5f31f3e
2021-07-24 14:33:16	0xf0a1123e6a92c849e556d4aa9ef49f798b2b7a23	0xfabf800fb3da1
2021-07-24 02:33:55	0x0ecfdc85acd320fffd5b95d08a61bd0768026609	0x49d194a14704(
2021-07-24 11:02:36	0xb4e92f4b58ba815f791dc6622385a00914eb03f0	0x80e489b6539d
2021-07-24 12:47:15	0x15112cc45c07d2e771ddefbea3a594d223546e59	0x1da67b3cf97b
2021-07-24 04:03:57	0x15112cc45c07d2e771ddefbea3a594d223546e59	0x229b4851ddaf7
2021-07-24 12:28:00	0x15112cc45c07d2e771ddefbea3a594d223546e59	0x9ebc1faa9d07(
2021-07-24 06:39:08	0x02df41ac455ec348da7ab1a5e4520f8917c4b41c	0xd73a609664f0f

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2021-07-24 14:33:16	0xf0a1123e6a92c849e556d4aa9ef49f798b2b7a23	0xfabf800fb3da1
2021-07-24 02:33:55	0x0ecfdc85acd320fffd5b95d08a61bd0768026609	0x49d194a14704
2021-07-24 11:02:36	0xb4e92f4b58ba815f791dc6622385a00914eb03f0	0x80e489b6539d
2021-07-24 12:47:15	0x15112cc45c07d2e771ddefbea3a594d223546e59	0x1da67b3cf97b
2021-07-24 04:03:57	0x15112cc45c07d2e771ddefbea3a594d223546e59	0x229b4851ddaf7
2021-07-24 12:28:00	0x15112cc45c07d2e771ddefbea3a594d223546e59	0x9ebc1faa9d07
2021-07-24 06:39:08	0x02df41ac455ec348da7ab1a5e4520f8917c4b41c	0xd73a609664f0f

the expected output is:

sender ▲	sequence_start ▲	sequence_end
0x02df41ac455ec348da7ab1a5e4520f8917c4b41c	2021-07-24 06:39:08	2021-07-24 06:49:
0x15112cc45c07d2e771ddefbea3a594d223546e59	2021-07-24 08:39:17	2021-07-24 08:49:
0x15112cc45c07d2e771ddefbea3a594d223546e59	2021-07-24 11:29:33	2021-07-24 12:47:

ⓘ Info   MySQL ⌄   ⚠ Autocomplete not supported ⓘ

```
1   /*
2   Enter your query below.
3   Please append a semicolon ";" at the end of the query
4   */
```

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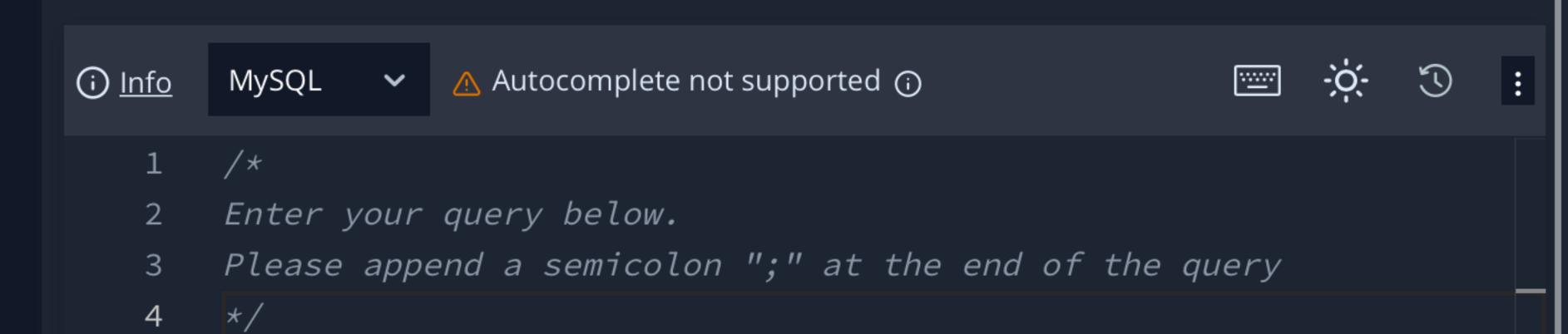| 556d4aa9ef49f798b2b7a23 | 0xfabf800fb3da10e966ed1bdb8251653e016e8c5c | 44.122483 |
5b95d08a61bd0768026609	0x49d194a1470469902f0b15418d1a177496ac378f	81.893268
91dc6622385a00914eb03f0	0x80e489b6539deb9a7f9732fb8c6a80dbaf21e02c	72.400256
1ddefbea3a594d223546e59	0x1da67b3cf97ba80f11eccd1578cb9e604afeae38	94.324919
1ddefbea3a594d223546e59	0x229b4851ddaf796b2d7a54b17dbaf531ac4eb576	85.542132
1ddefbea3a594d223546e59	0x9ebc1faa9d07c57d97d0142622fe6e6c60c9d489	40.769475
a7ab1a5e4520f8917c4b41c	0xd73a609664f0f4420d6b2572ed01457d813bc230	82.201180

	sequence_start ▲	sequence_end ▲	transactions_count	transactions_sum
b41c	2021-07-24 06:39:08	2021-07-24 06:49:27	2	175.700558
6e59	2021-07-24 08:39:17	2021-07-24 08:49:28	2	157.577043
6e59	2021-07-24 11:29:33	2021-07-24 12:47:15	3	175.370011

ⓘ Info   MySQL ⌄   ⚠ Autocomplete not supported ⓘ

```
1   /*
2   Enter your query below.
3   Please append a semicolon ";" at the end of the query
4   */
```

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Line: 4 Col: 3

Test Results   **Run Query**   **Submit**

Incorrect answer.

✕ Test case 0

Expected Output   Download

1	0x00ba9dea044c81ebc4fa4f611e8e717a64571248		2021-07-24 09:38:28
	2021-07-24 12:23:24	7	263.322762
2	0x00ba9dea044c81ebc4fa4f611e8e717a64571248		2021-07-24 21:53:52
	2021-07-24 22:27:42	3	167.011622
3	0x02df41ac455ec348da7ab1a5e4520f8917c4b41c		2021-07-24 00:36:28
	2021-07-24 02:44:46	9	449.881797
4	0x02df41ac455ec348da7ab1a5e4520f8917c4b41c		2021-07-24 04:02:10
	2021-07-24 08:45:50	11	496.079732
5	0x02df41ac455ec348da7ab1a5e4520f8917c4b41c		2021-07-24 10:45:52
	2021-07-24 12:02:44	5	241.018067
6	0x02df41ac455ec348da7ab1a5e4520f8917c4b41c		2021-07-24 14:05:06
	2021-07-24 19:28:08	19	1020.641081
7	0x0ecfdc85acd320fffd5b95d08a61bd0768026609		2021-07-24 03:16:19
	2021-07-24 03:59:05	4	198.658734
8	0x0ecfdc85acd320fffd5b95d08a61bd0768026609		2021-07-24 06:34:13
	2021-07-24 09:47:27	10	515.786282
9	0x0ecfdc85acd320fffd5b95d08a61bd0768026609		2021-07-24 13:26:06

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0x00ba9dea044c81ebc4fa4f611e8e717a64571248	2021-07-24 09:38:28	2021-07-24 12:23:24
7 263.322762		
0x00ba9dea044c81ebc4fa4f611e8e717a64571248	2021-07-24 21:53:52	2021-07-24 22:27:42
3 167.011622		
0x02df41ac455ec348da7ab1a5e4520f8917c4b41c	2021-07-24 00:36:28	2021-07-24 02:44:46
9 449.881797		
0x02df41ac455ec348da7ab1a5e4520f8917c4b41c	2021-07-24 04:02:10	2021-07-24 08:45:50
11 496.079732		
0x02df41ac455ec348da7ab1a5e4520f8917c4b41c	2021-07-24 10:45:52	2021-07-24 12:02:44
5 241.018067		
0x02df41ac455ec348da7ab1a5e4520f8917c4b41c	2021-07-24 14:05:06	2021-07-24 19:28:08
19 1020.641081		
0x0ecfdc85acd320fffd5b95d08a61bd0768026609	2021-07-24 03:16:19	2021-07-24 03:59:05
4 198.658734		
0x0ecfdc85acd320fffd5b95d08a61bd0768026609	2021-07-24 06:34:13	2021-07-24 09:47:27
10 515.786282		
0x0ecfdc85acd320fffd5b95d08a61bd0768026609	2021-07-24 13:26:06	2021-07-24 18:39:57
15 829.085177		
0x0ecfdc85acd320fffd5b95d08a61bd0768026609	2021-07-24 22:30:44	2021-07-24 23:37:20
7 412.864778		
0x15112cc45c07d2e771ddefbea3a594d223546e59	2021-07-24 00:07:26	2021-07-24 07:55:17
50 2184.384134		
0x15112cc45c07d2e771ddefbea3a594d223546e59	2021-07-24 09:02:52	2021-07-24 12:51:15
18 874.271469		
0x15112cc45c07d2e771ddefbea3a594d223546e59	2021-07-24 14:13:54	2021-07-24 23:58:11
54 2862.633403		
0x6bccb8d10aaf6b541d2aa14ffe27266357a6f3e9	2021-07-24 13:45:58	2021-07-24 15:31:04
3 202.031272		
0x9fc2753a53abbb537d3dc35f7e60e72afb4d435e	2021-07-24 01:05:06	2021-07-24 02:21:38
5 280.358221		
0x9fc2753a53abbb537d3dc35f7e60e72afb4d435e	2021-07-24 05:34:52	2021-07-24 06:23:57
4 287.165688		
0x9fc2753a53abbb537d3dc35f7e60e72afb4d435e	2021-07-24 07:41:47	2021-07-24 09:07:18
3 192.632110		
0x9fc2753a53abbb537d3dc35f7e60e72afb4d435e	2021-07-24 10:08:55	2021-07-24 12:07:34
8 313.791865		
0x9fc2753a53abbb537d3dc35f7e60e72afb4d435e	2021-07-24 14:01:01	2021-07-24 21:17:40
20 1151.661237		
0xb4e92f4b58ba815f791dc6622385a00914eb03f0	2021-07-24 00:45:45	2021-07-24 04:09:11
9 234.458427		
0xb4e92f4b58ba815f791dc6622385a00914eb03f0	2021-07-24 05:30:46	2021-07-24 09:39:26
16 986.209653		
0xb4e92f4b58ba815f791dc6622385a00914eb03f0	2021-07-24 10:53:14	2021-07-24 16:02:14
11 395.853660		
0xb4e92f4b58ba815f791dc6622385a00914eb03f0	2021-07-24 18:23:43	2021-07-24 20:14:50
8 337.613049		
0xb4e92f4b58ba815f791dc6622385a00914eb03f0	2021-07-24 23:12:23	2021-07-24 23:50:46
3 160.297760		
0xfba36acf112550bc70e885b4ee09e91e1450cdd0	2021-07-24 00:24:55	2021-07-24 02:27:13
7 280.436781		
0xfba36acf112550bc70e885b4ee09e91e1450cdd0	2021-07-24 03:59:56	2021-07-24 05:55:06
5 335.128087		
0xfba36acf112550bc70e885b4ee09e91e1450cdd0	2021-07-24 07:11:38	2021-07-24 09:16:14
5 272.522017		
0xfba36acf112550bc70e885b4ee09e91e1450cdd0	2021-07-24 16:26:41	2021-07-24 17:40:59
5 193.009060		
0xfba36acf112550bc70e885b4ee09e91e1450cdd0	2021-07-24 20:15:58	2021-07-24 23:31:22
9 342.862961		