

5. e-Commerce Customer Revenue Report

As part of HackerMart's e-commerce marketing analytics, they need a revenue report for their customers in July, 2021. Revenue from a customer is the sum of the values described below.

- `type=BUY`, the customer purchased something, the transaction amount is potential revenue
- `type=SELL`, the customer sold something, HackerMart collects a fee, 10% of the transaction amount is potential revenue

Status determines how a transaction is treated.

- `status = COMPLETED`, the transaction is included
- `status = PENDING`, the transaction is ignored
- `status = CANCELED`, the transaction is void, 1% of the transaction amount is deducted from revenue

Requirements:

- Columns to report are *customer*, *buy*, *sell*, *total*.
- *buy*, and *sell* are revenues for buy and sell transactions, respectively.
- *total* is the sum of *buy* and *sell*.

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- *total* is the sum of *buy* and *sell*.
- Round to 2 places after the decimal.
- Order the records descending by *total*.

▼ Schema

There is 1 table:

transactions		
name	type	description
dt	VARCHAR(19)	Transaction timestamp
customer	VARCHAR(64)	Customer email address
type	VARCHAR(4)	Transaction type
amount	DECIMAL(4,2)	Transaction amount
status	VARCHAR(9)	Transaction status

transactions				
dt	customer	type	amount	status
2021-07-09 20:03:14	rclaypole0@qq.com	BUY	71.46	CANCELED
2021-07-09 19:30:03	asmithin4@elegantthemes.com	SELL	40.24	CANCELED
2021-07-06 04:56:06	rclaypole0@qq.com	SELL	69.35	PENDING
2021-07-16 04:36:58	rclaypole0@qq.com	SELL	3.37	CANCELED
2021-07-15 11:59:36	bhaddeston2@mapquest.com	BUY	15.46	CANCELED
2021-07-24 16:31:04	bhaddeston2@mapquest.com	SELL	90.16	COMPLETED
2021-06-23 21:50:34	rclaypole0@qq.com	BUY	53.40	CANCELED
2021-07-30 22:30:22	bhaddeston2@mapquest.com	SELL	6.48	PENDING
2021-06-28 05:47:45	stapenden1@google.de	SELL	72.67	PENDING
2021-07-11 16:51:06	stapenden1@google.de	BUY	93.29	CANCELED
2021-07-16 08:25:11	rclaypole0@qq.com	BUY	53.19	PENDING
2021-07-22 02:24:59	rclaypole0@qq.com	BUY	51.17	CANCELED
2021-06-23 21:42:24	bhaddeston2@mapquest.com	SELL	10.57	PENDING
2021-07-22 09:11:56	rclaypole0@qq.com	BUY	68.25	COMPLETED

2021-07-16 08:25:11	rclaypole0@qq.com	BUY	53.19	PENDING
2021-07-22 02:24:59	rclaypole0@qq.com	BUY	51.17	CANCELED
2021-06-23 21:42:24	bhaddeston2@mapquest.com	SELL	10.57	PENDING
2021-07-22 09:11:56	rclaypole0@qq.com	BUY	68.25	COMPLETED
2021-07-19 04:11:50	rclaypole0@qq.com	SELL	66.78	PENDING
2021-07-03 19:00:10	gnickerson3@globo.com	BUY	26.31	PENDING
2021-07-11 17:56:06	bhaddeston2@mapquest.com	BUY	86.05	CANCELED
2021-07-03 01:58:09	stapenden1@google.de	SELL	31.49	CANCELED
2021-06-30 22:03:17	bhaddeston2@mapquest.com	BUY	50.93	PENDING
2021-07-09 14:22:39	stapenden1@google.de	BUY	5.40	CANCELED

Detail for rclaypole0@qq.com:

transactions			
dt	type	amount	status
2021-07-09 20:03:14	BUY	71.46	CANCELED
2021-07-22 02:24:59	BUY	51.17	CANCELED
2021-07-22 09:11:56	BUY	68.25	COMPLETED
2021-07-16 08:25:11	BUY	53.19	PENDING
2021-07-16 04:36:58	SELL	3.37	CANCELED
2021-07-06 04:56:06	SELL	69.35	PENDING
2021-07-19 04:11:50	SELL	66.78	PENDING

- Gross buy revenue: 68.25 and buy penalties: $(71.46 + 51.17) * -0.01 = -1.22$
- Gross sell revenue: 0 and sell penalties: $3.37 * -0.01 = -0.03$

The expected output is:

customer	buy	sell	total ▼
rclaypole0@qq.com	67.02	-0.03	66.99
bhaddeston2@mapquest.com	-1.02	9.02	8.00
gnickerson3@globo.com	0.00	0.00	0.00
asmithin4@elegantthemes.com	0.00	-0.40	-0.40
stapenden1@google.de	-0.99	-0.31	-1.30

Detail for [rclaypole0@qq.com](#):

Programming :

```
create table transaction(dt varchar(19),customer varchar(64),
  typet enum('BUY','SELL'),
  amount decimal(4,2),status enum('COMPLETED','PENDING','CANCELLED'));
insert into transaction values('2021-07-09 20:03:14','rclaypole0@qq.com','BUY',71.46,'CANCELLED'),
('2021-07-09 19:30:03','asmithin4@elegantthemes.com','SELL',40.24,'CANCELLED'),
('2021-07-16 04:56:06','rclaypole0@qq.com','SELL',69.35,'PENDING'),
('2021-07-16 04:36:58','rclaypole0@qq.com','SELL',3.37,'CANCELLED'),
('2021-07-15 11:59:36','bhaddeston2@mapquest.com','BUY',15.46,'CANCELLED'),
('2021-07-24 16:31:04','bhaddeston2@mapquest.com','SELL',90.16,'COMPLETED'),
('2021-06-23 21:50:34','rclaypole0@qq.com','BUY',53.40,'CANCELLED'),
('2021-07-30 22:30:22','bhaddeston2@mapquest.com','SELL',6.48,'PENDING'),
('2021-06-28 05:47:45','stapenden1@google.de','SELL',72.67,'PENDING'),
('2021-07-11 16:51:06','stapenden1@google.de','BUY',93.29,'CANCELLED'),
('2021-07-16 08:25:11','rclaypole0@qq.com','BUY',53.19,'PENDING'),
('2021-07-22 02:24:59','rclaypole0@qq.com','BUY',51.17,'CANCELLED'),
('2021-06-23 21:42:24','bhaddeston2@mapquest.com','SELL',10.57,'PENDING'),
('2021-07-22 09:11:56','rclaypole0@qq.com','BUY',68.25,'COMPLETED'),
('2021-07-19 04:11:50','rclaypole0@qq.com','SELL',66.78,'PENDING'),
('2021-07-03 19:00:10','gnickerson3@globo.com','BUY',26.31,'PENDING'),
('2021-07-11 17:56:06','bhaddeston2@mapquest.com','BUY',86.05,'CANCELLED'),
('2021-07-03 01:58:09','stapenden1@google.de','SELL',31.49,'CANCELLED'),
('2021-06-30 22:03:17','bhaddeston2@mapquest.com','BUY',50.93,'PENDING'),
```

```

('2021-07-09 14:22:39','stapenden1@google.de','BUY',5.40,'CANCELLED');
select distinct t.customer,bs.buy,bs.sell,(bs.buy+bs.sell) as total from (select
coalesce(f.customer,g.customer) as customer,f.buy,g.sell from
(select coalesce (a.customer,c.customer) as
customer,coalesce((a.amtbcom+c.amtbcan),c.amtbcan,a.amtbcom) as buy from (select amount as
amtbcum,customer from (select * from transaction
where typet = 'BUY' and status = 'COMPLETED')) a right join
(select round(sum(amount)*(-0.01),2) as amtbcan,customer from (select * from transaction where typet
= 'BUY' and status = 'CANCELLED') group by customer) c on a.customer=c.customer union
select coalesce (a.customer,c.customer) as
customer,coalesce((a.amtbcom+c.amtbcan),c.amtbcan,a.amtbcom) as buy from (select amount as
amtbcum,customer from (select * from transaction
where typet = 'BUY' and status = 'COMPLETED')) a left join
(select round(sum(amount)*(-0.01),2) as amtbcan,customer from (select * from transaction where typet
= 'BUY' and status = 'CANCELLED') group by customer) c on a.customer=c.customer) f
left join (select coalesce (d.customer,e.customer) as
customer,coalesce((d.amtscom+e.amtscom),e.amtscom,d.amtscom) as sell from (select amount as
amtscom,customer from
(select * from transaction where typet = 'SELL' and status = 'COMPLETED')) d right join (select
round(sum(amount)*(-0.01),2) as amtscom,customer from (select * from transaction
where typet = 'SELL' and status = 'CANCELLED') group by customer) e on d.customer = e.customer
union
select coalesce (d.customer,e.customer) as
customer,coalesce((d.amtscom+e.amtscom),e.amtscom,d.amtscom) as sell from (select amount as
amtscom,customer from
(select * from transaction where typet = 'SELL' and status = 'COMPLETED')) d left join (select
round(sum(amount)*(-0.01),2) as amtscom,customer from
(select * from transaction where typet = 'SELL' and status = 'CANCELLED') group by customer) e on
d.customer = e.customer) g on
f.customer = g.customer union
select coalesce(f.customer,g.customer) as customer,f.buy,g.sell from (select coalesce
(a.customer,c.customer) as customer,coalesce((a.amtbcom+c.amtbcan),c.amtbcan,a.amtbcom) as buy
from
(select amount as amtbcom,customer from (select * from transaction where typet = 'BUY' and status =
'COMPLETED')) a right join (select round(sum(amount)*(-0.01),2) as amtbcan,customer from
(select * from transaction where typet = 'BUY' and status = 'CANCELLED') group by customer) c on
a.customer=c.customer union
select coalesce (a.customer,c.customer) as
customer,coalesce((a.amtbcom+c.amtbcan),c.amtbcan,a.amtbcom) as buy from (select amount as
amtbcum,customer from
(select * from transaction where typet = 'BUY' and status = 'COMPLETED')) a left join
(select round(sum(amount)*(-0.01),2) as amtbcan,customer from (select * from transaction where typet
= 'BUY' and status = 'CANCELLED') group by customer) c on a.customer=c.customer) f right join
(select coalesce (d.customer,e.customer) as
customer,coalesce((d.amtscom+e.amtscom),e.amtscom,d.amtscom) as sell from (select amount as
amtscom,customer from (select * from transaction

```

```

where typet = 'SELL' and status = 'COMPLETED')) d right join (select round(sum(amount)*(-0.01),2) as
amtscan,customer from (select * from transaction where typet = 'SELL' and status = 'CANCELLED')
group by customer) e on d.customer = e.customer union
select coalesce (d.customer,e.customer) as
customer,coalesce((d.amtscom+e.amtscan),e.amtscan,d.amtscom) as sell from (select amount as
amtscm,customer from
(select * from transaction where typet = 'SELL' and status = 'COMPLETED')) d left join (select
round(sum(amount)*(-0.01),2) as amtscan,customer from
(select * from transaction where typet = 'SELL' and status = 'CANCELLED') group by customer) e on
d.customer = e.customer) g
on f.customer = g.customer) bs right join transaction t on bs.customer = t.customer order by total desc;

```