

NUSmoney App

**The App to Store your money
(Data taken 6/9/2019-6/9/2020)**

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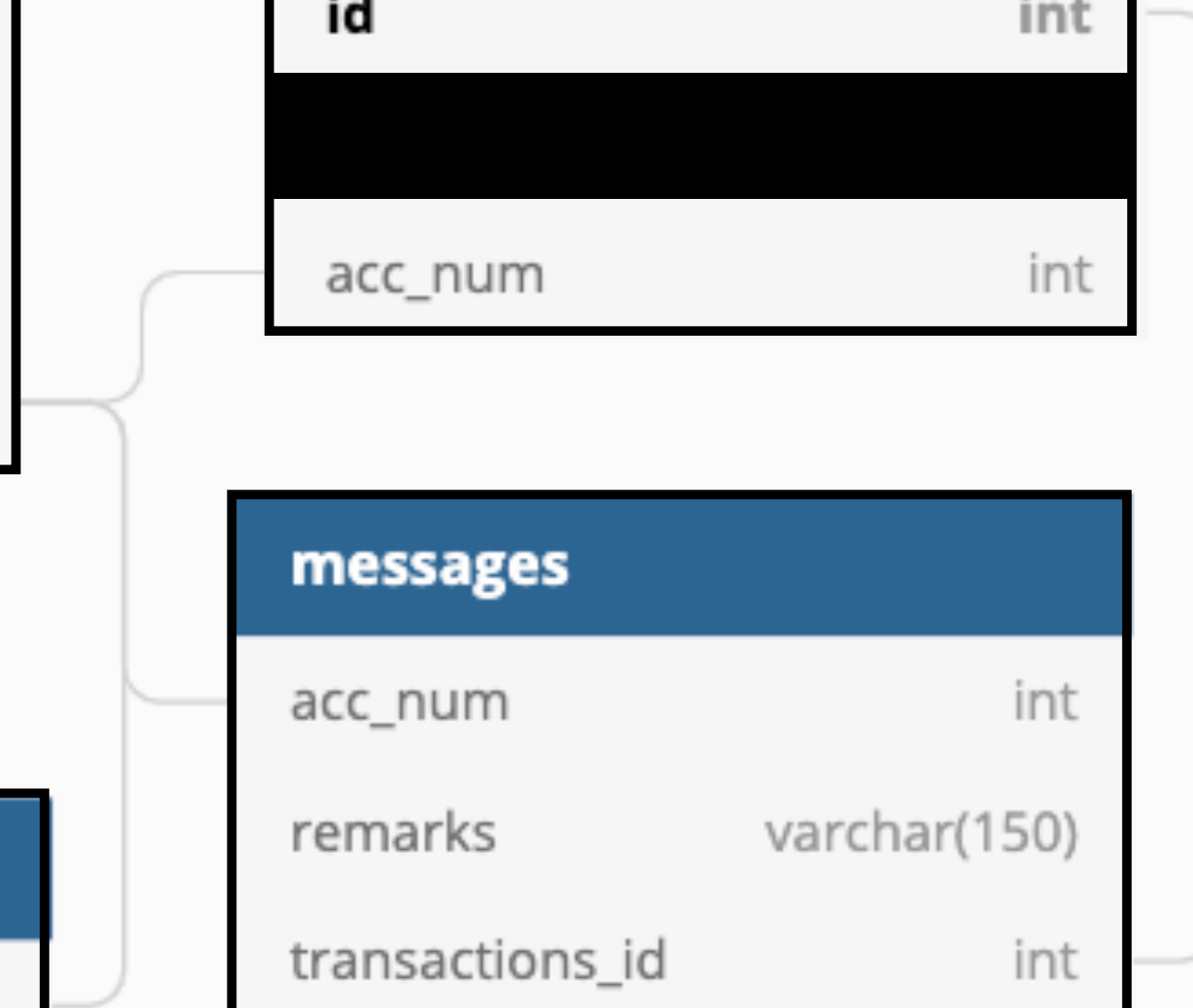
Database Mapping

user	
name	varchar
mail	varchar
mobile	int
password	varchar
IC_number	varchar
acc_num	int

accounts	
acc_num	int
balance	decimal(9,2)
max_limit	int
date_created	date

transactions	
date	date
amount	decimal(7,2)
id	int
acc_num	int

messages	
acc_num	int
remarks	varchar(150)
transactions_id	int



User Table

```
mysql> describe user;
```

Field	Type	Null	Key	Default	Extra
name	varchar(50)	YES		NULL	
mail	varchar(50)	YES		NULL	
mobile	int	YES		NULL	
password	varchar(50)	YES		NULL	
IC_number	varchar(50)	YES		NULL	
acc_num	int	NO	PRI	NULL	

```
mysql> select * from user;
```

name	mail	mobile	password	IC_number	acc_num
Nap	nfoldes0@dagondesign.com	99631104	363n5o	34-9821092	101
Gifford	gfewkes1@yellowpages.com	91541146	TCsef3d	55-9255679	102
Sher	sgoatcher2@ft.com	99118717	GPEf2J4a	84-6047665	103
Nancy	nwibrow3@a8.net	85821344	5Azv1omvLtLr	35-2603704	104
Giulietta	gcode4@marriott.com	95338338	ttcLPCCyq	02-4168174	105
Jordon	jgomery5@ucoz.ru	94816787	bbIb1fV9q	43-6116461	106
Irwin	iibarra6@upenn.edu	98734616	fPVxmwn	14-9819155	107
Jan	jmarieton7@walmart.com	91116192	R2vIBH	50-3934460	108
Allan	abullon8@cnet.com	92690216	fWmeCnCB	42-8987632	109
Sigvard	smehmet9@biblegateway.com	96273134	oJfC2yw	99-0960436	110
Gardener	gmayorala@friendfeed.com	92483351	S6AqYwlzkHB	74-3233116	111
Dukie	ddomneyb@ed.gov	93770534	Z0KsyVtA1	53-1221323	112
Christoph	ccrallanc@japanpost.jp	92119672	t1rudmRJj5rf	55-0118427	113
Jessamyn	jferensd@imdb.com	99094985	EUhfUBUsyLfh	09-2474592	114
Jacintha	jcarlane@google.pl	82602048	iSleQE	79-2218097	115
Aldwin	afontaine@t-online.de	99897032	7bI0sHZg	33-7613863	116
Douglass	dcaccavarig@technorati.com	80164241	1aDMZaT4	19-1389400	117
Donalt	dbalderyh@jalbum.net	94676818	ADMD6e2M	52-4813180	118
Horatius	hbensteadi@yandex.ru	89875138	zxaPciq4	45-7309537	119
Mendy	mcorstonj@dagondesign.com	93872763	zGMfzarg227I	20-4407350	120

Accounts Table

```
mysql> describe accounts;
```

Field	Type	Null	Key	Default	Extra
acc_num	int	NO	PRI	NULL	
balance	decimal(9,2)	YES		NULL	
max_limit	int	YES		NULL	
date_created	date	YES		NULL	

```
[mysql> select * from accounts;
```

acc_num	balance	max_limit	date_created
101	298322.67	1045	2012-08-08
102	582540.47	4339	2014-08-26
103	50070.99	2795	2015-12-23
104	569828.32	4246	2007-12-08
105	855422.32	7145	1988-01-14
106	973309.17	9913	1997-09-29
107	220019.35	9951	2006-06-30
108	205998.80	9666	1987-11-06
109	232249.16	8304	1981-03-28
110	449785.00	2762	2016-04-23
111	164304.32	7343	1983-01-25
112	165117.60	6834	1985-02-03
113	269501.30	6648	2016-05-11
114	300748.81	3935	2019-02-10
115	440950.00	3659	1988-01-24
116	978207.77	8675	2019-07-28
117	9836.78	6404	2010-11-16
118	24273.12	8135	2015-01-19
119	722229.98	2808	2010-01-06
120	318385.95	8595	2009-08-11

Transactions Table

```
[mysql> describe transactions;
```

Field	Type	Null	Key	Default	Extra
date	date	YES		NULL	
amount	decimal(5,2)	YES		NULL	
acc_num	int	YES		NULL	
id	int	NO	PRI	NULL	

```
4 rows in set (0.01 sec)
```

```
mysql> select * from transactions;
```

date	amount	acc_num	id
2019-09-29	-50.43	101	2001
2019-11-28	29.92	118	2002
2019-12-03	68.94	114	2003
2020-01-18	56.79	109	2004
2020-01-01	-54.15	102	2005
2020-08-26	59.68	115	2006
2020-08-21	-93.84	110	2007
2019-11-13	-18.07	113	2008
2020-04-02	55.62	117	2009
2020-05-09	1.03	117	2010
2020-06-11	-68.05	114	2011
2020-03-23	-38.06	120	2012
2020-08-14	91.93	114	2013
2020-06-12	-80.24	110	2014
2019-11-18	85.76	117	2015
2020-08-31	-0.24	114	2016
2020-04-29	-15.21	103	2017
2019-11-26	45.69	111	2018
2019-10-20	-47.69	108	2019
2020-02-05	95.10	101	2020
2020-08-14	-81.77	117	2021
2020-06-25	7.25	112	2022
2020-08-09	-15.75	114	2023
2020-05-10	70.32	113	2024
2020-06-19	-67.11	102	2025
2020-08-13	3.15	103	2026
2019-11-18	-19.00	102	2027
2019-09-14	56.24	110	2028
2020-01-07	-81.38	107	2029
2020-08-11	59.83	111	2030
2020-03-24	-79.67	114	2031
2019-11-06	97.74	120	2032
2020-06-20	-73.23	107	2033
2019-12-26	55.30	120	2034
2020-01-26	13.16	105	2035
2019-12-01	13.36	120	2036
2020-01-22	-94.24	103	2037
2019-11-25	-84.10	116	2038
2020-01-17	-61.76	110	2039
2020-03-19	74.06	119	2040
2020-05-08	-30.18	103	2041
2020-03-06	50.86	120	2042
2019-10-30	14.18	119	2043
2019-11-16	14.18	120	2044
2020-08-30	69.12	103	2045
2020-08-29	-97.28	105	2046
2020-01-01	68.88	105	2047
2020-07-03	-93.36	112	2048
2019-09-22	-81.69	114	2049
2019-12-21	-43.02	114	2050
2020-08-04	28.55	105	2051
2019-10-31	-89.31	106	2052
2020-03-02	-93.03	120	2053
2020-06-08	-55.34	120	2054
2019-10-17	-81.82	109	2055
2020-05-14	-7.31	104	2056
2019-09-29	53.73	116	2057
2019-09-25	-69.44	112	2058
2020-01-16	86.84	118	2059
2020-04-13	53.57	112	2060
2020-06-18	-11.66	115	2061
2020-07-12	79.56	108	2062
2020-07-26	-31.50	103	2063
2019-11-24	-24.51	112	2064
2020-08-01	81.61	112	2065
2020-06-04	-98.83	102	2066
2020-04-19	-39.00	114	2067
2020-05-20	41.35	106	2068
2019-12-22	-37.81	114	2069
2020-02-21	-33.75	104	2070
2020-04-18	-29.30	108	2071

Messages Table

```
mysql> describe messages;
```

Field	Type	Null	Key	Default	Extra
acc_num	int	YES		NULL	
remarks	varchar(150)	YES		NULL	
transaction_id	int	YES		NULL	

```
mysql> select * from messages;
```

acc_num	remarks	transaction_id
107	investment profits	2001
112	monthly pay	2011
108	student loan repayment	2013
113	son's party	2040
107	CPF money	2060

Spending Patterns

Over the year, Mr Dukie (acc_name = 112) spent the most throughout the year.

```
[mysql> select * from user as u join (select acc_num, sum(amount) from transactions where amount < 0 group by acc_num) as p on u.acc_num = p.acc_num;
```

name	mail	mobile	password	IC_number	acc_num	acc_num	sum(amount)
Nap	nfoldes0@dagondesign.com	99631104	363n5o	34-9821092	101	101	-355.45
Gifford	gfewkes1@yellowpages.com	91541146	TCsef3d	55-9255679	102	102	-699.28
Sher	sgoatcher2@ft.com	99118717	GPEf2J4a	84-6047665	103	103	-701.73
Nancy	nwibrow3@a8.net	85821344	5Azv1omvLtlr	35-2603704	104	104	-502.26
Giulietta	gcode4@marriott.com	95338338	ttcLPCCyq	02-4168174	105	105	-393.87
Jordon	jgomery5@ucoz.ru	94816787	bbIb1fV9q	43-6116461	106	106	-585.34
Irwin	iibarra6@upenn.edu	98734616	fPVxmwN	14-9819155	107	107	-759.83
Jan	jmarieton7@walmart.com	91116192	R2vIBH	50-3934460	108	108	-550.01
Allan	abullon8@cnet.com	92690216	fWmeCnCB	42-8987632	109	109	-348.56
Sigvard	smehmet9@biblegateway.com	96273134	oJfC2yw	99-0960436	110	110	-640.15
Gardener	gmayorala@friendfeed.com	92483351	S6AqYwlzkHB	74-3233116	111	111	-526.51
Dukie	ddomneyb@ed.gov	93770534	Z0KsyVtA1	53-1221323	112	112	-1129.98
Christoph	ccrallanc@japanpost.jp	92119672	t1rudmRJj5rf	55-0118427	113	113	-722.24
Jessamyn	jferensd@imdb.com	99094985	EUhfUBUsyLfh	09-2474592	114	114	-1055.40
Jacintha	jcarlane@google.pl	82602048	iSleQE	79-2218097	115	115	-489.44
Aldwin	afontaine@t-online.de	99897032	7bI0sHZg	33-7613863	116	116	-824.60
Douglass	dcaccavarig@technorati.com	80164241	1aDMZaT4	19-1389400	117	117	-311.77
Donalt	dbalderyh@jalbum.net	94676818	ADMD6e2M	52-4813180	118	118	-480.26
Horatius	hbensteadi@yandex.ru	89875138	zxaPciq4	45-7309537	119	119	-479.01
Mendy	mcorstonj@dagondesign.com	93872763	zGMfzarg227I	20-4407350	120	120	-636.21

```
20 rows in set (0.01 sec)
```

Spending Patterns

Over the year, the user spent the most during November, and the least in April.

```
[mysql> select month(date), sum(amount) from transactions where amount < 0 group by month(date) order by sum(amount);
```

month(date)	sum(amount)
11	-1295.56
9	-1274.80
10	-1186.95
6	-1124.49
8	-1116.87
1	-1115.92
3	-1106.92
5	-1032.41
7	-877.53
12	-828.96
2	-625.77
4	-605.72

```
12 rows in set (0.00 sec)
```


Monthly Average Spending Per User

The sum of the spendings per user in a year can be found in the right-most column. To find the monthly average, divide that value by 12.

```
mysql> select * from user as u join (select acc_num, sum(amount) from transactions where amount < 0 group by acc_num) as p on u.acc_num = p.acc_num;
```

name	mail	mobile	password	IC_number	acc_num	acc_num	sum(amount)
Nap	nfoldes0@dagondesign.com	99631104	363n5o	34-9821092	101	101	-355.45
Gifford	gfewkes1@yellowpages.com	91541146	TCsef3d	55-9255679	102	102	-699.28
Sher	sgoatcher2@ft.com	99118717	GPEf2J4a	84-6047665	103	103	-701.73
Nancy	nwibrow3@a8.net	85821344	5Azv1omvLtLr	35-2603704	104	104	-502.26
Giulietta	gcode4@marriott.com	95338338	ttcLPCCyq	02-4168174	105	105	-393.87
Jordon	jgomery5@ucoz.ru	94816787	bbIb1fV9q	43-6116461	106	106	-585.34
Irwin	iibarra6@upenn.edu	98734616	fPVxmwN	14-9819155	107	107	-759.83
Jan	jmarieton7@walmart.com	91116192	R2vIBH	50-3934460	108	108	-550.01
Allan	abullon8@cnet.com	92690216	fWmeCnCB	42-8987632	109	109	-348.56
Sigvard	smehmet9@biblegateway.com	96273134	oJfC2yw	99-0960436	110	110	-640.15
Gardener	gmayorala@friendfeed.com	92483351	S6AqYwlzkHB	74-3233116	111	111	-526.51
Dukie	ddomneyb@ed.gov	93770534	Z0KsyVtA1	53-1221323	112	112	-1129.98
Christoph	ccrallanc@japanpost.jp	92119672	t1rudmRJj5rf	55-0118427	113	113	-722.24
Jessamyn	jferensd@imdb.com	99094985	EUhfUBUsyLfh	09-2474592	114	114	-1055.40
Jacintha	jcarlane@google.pl	82602048	iSleQE	79-2218097	115	115	-489.44
Aldwin	afontaine@t-online.de	99897032	7bI0sHZg	33-7613863	116	116	-824.60
Douglass	dcaccavarig@technorati.com	80164241	1aDMZaT4	19-1389400	117	117	-311.77
Donalt	dbalderyh@jalum.net	94676818	ADMD6e2M	52-4813180	118	118	-480.26
Horatius	hbensteadi@yandex.ru	89875138	zxaPciq4	45-7309537	119	119	-479.01
Mendy	mcorstonj@dagondesign.com	93872763	zGMfzarg227I	20-4407350	120	120	-636.21

20 rows in set (0.00 sec)

Most frequent transaction type

Highest Balance User

```
[mysql> select max(a.balance) from user as u join accounts as a on u.acc_num = a.acc_num;
```

max(a.balance)
978207.77

```
1 row in set (0.00 sec)
```

```
[mysql> select * from user as u join accounts as a on u.acc_num = a.acc_num where a.balance = 978207.77;
```

name	mail	mobile	password	IC_number	acc_num	acc_num	balance	max_limit	date_created
Aldwin	afontaine@t-online.de	99897032	7bI0sHZg	33-7613863	116	116	978207.77	8675	2019-07-28

```
1 row in set (0.00 sec)
```

Lowest Balance User

```
mysql> select min(a.balance) from user as u join accounts as a on u.acc_num = a.acc_num;
```

```
+-----+
| min(a.balance) |
+-----+
|           9836.78 |
+-----+
1 row in set (0.00 sec)
```

```
mysql> select * from accounts where balance = 9836.78;
```

```
+-----+-----+-----+-----+
| acc_num | balance | max_limit | date_created |
+-----+-----+-----+-----+
|      117 | 9836.78 |      6404 | 2010-11-16   |
+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> select * from user as u join accounts as a on u.acc_num = a.acc_num where a.balance = 9836.78;
```

name	mail	mobile	password	IC_number	acc_num	acc_num	balance	max_limit	date_created
Douglass	dcaccavarig@technorati.com	80164241	1aDMZaT4	19-1389400	117	117	9836.78	6404	2010-11-16

1 row in set (0.01 sec)

Highest Number of Transactions per month

Account number 112 has the highest number of transaction per year, at a count of 41. That means he has an average of 3.42 transactions per month.

```
[mysql> select acc_num, count(id) from transactions group by acc_num order by count(id);
```

acc_num	count(id)
118	18
106	18
117	20
104	20
113	21
105	21
109	22
115	22
110	22
108	23
102	25
120	25
103	25
111	25
101	26
107	28
119	29
116	31
114	38
112	41

20 rows in set (0.00 sec)

```
[mysql> select * from user as u join (select acc_num, count(id) from transactions group by acc_num order by count(id)) as p on u.acc_num = p.acc_num;
```

name	mail	mobile	password	IC_number	acc_num	acc_num	count(id)
Nap	nfoldes0@dagondesign.com	99631104	363n5o	34-9821092	101	101	26
Gifford	gfewkes1@yellowpages.com	91541146	TCsef3d	55-9255679	102	102	25
Sher	sgoatcher2@ft.com	99118717	GPEf2J4a	84-6047665	103	103	25
Nancy	nwibrow3@a8.net	85821344	5Azv1omvLtlr	35-2603704	104	104	20
Giulietta	gcode4@marriott.com	95338338	ttcLPCCyq	02-4168174	105	105	21
Jordon	jgomery5@ucoz.ru	94816787	bbIb1fV9q	43-6116461	106	106	18
Irwin	iibarra6@upenn.edu	98734616	fPVxmwN	14-9819155	107	107	28
Jan	jmarieton7@walmart.com	91116192	R2vIBH	50-3934460	108	108	23
Allan	abullon8@cnet.com	92690216	fWmeCnCB	42-8987632	109	109	22
Sigvard	smehmet9@biblegateway.com	96273134	oJfC2yw	99-0960436	110	110	22
Gardener	gmayorala@friendfeed.com	92483351	S6AqYwlzkHB	74-3233116	111	111	25
Dukie	ddomneyb@ed.gov	93770534	Z0KsyVtA1	53-1221323	112	112	41
Christoph	ccrallanc@japanpost.jp	92119672	t1rudmRJj5rf	55-0118427	113	113	21
Jessamyn	jferensd@imdb.com	99094985	EUhfUBUsyLfH	09-2474592	114	114	38
Jacintha	jcarlane@google.pl	82602048	iSleQE	79-2218097	115	115	22
Aldwin	afontaine@t-online.de	99897032	7bI0sHZg	33-7613863	116	116	31
Douglass	dcaccavarig@technorati.com	80164241	1aDMZaT4	19-1389400	117	117	20
Donalt	dbalderyh@jalum.net	94676818	ADMD6e2M	52-4813180	118	118	18
Horatius	hbenstead@yandex.ru	89875138	zxaPciq4	45-7309537	119	119	29
Mendy	mcorstonj@dagondesign.com	93872763	zGMfzarg227I	20-4407350	120	120	25