

original data						
(index)	id	date	quantity	total	tip	type
0	"01"	"2011-11-14T...	2	190	100	"tab"
1	"02"	"2011-11-14T...	2	190	100	"tab"
2	"03"	"2011-11-14T...	1	300	200	"visa"
3	"04"	"2011-11-14T...	2	90	0	"tab"
4	"05"	"2011-11-14T...	2	90	0	"tab"
5	"06"	"2011-11-14T...	2	90	0	"tab"
6	"07"	"2011-11-14T...	1	100	0	"cash"
7	"08"	"2011-11-14T...	2	90	0	"tab"
8	"09"	"2011-11-14T...	2	90	0	"tab"
9	"10"	"2011-11-14T...	2	90	0	"tab"
10	"11"	"2011-11-14T...	2	200	0	"cash"
11	"12"	"2011-11-14T...	1	200	100	"visa"

(1) -----

```
d_tip = facts.dimension(d=>d.tip)
d_tip.top(Infinity)
```

(index)	id	date	quantity	total	tip	type
0	"03"	"2011-11-14T...	1	300	200	"visa"
1	"12"	"2011-11-14T...	1	200	100	"visa"
2	"02"	"2011-11-14T...	2	190	100	"tab"
3	"01"	"2011-11-14T...	2	190	100	"tab"
4	"11"	"2011-11-14T...	2	200	0	"cash"
5	"10"	"2011-11-14T...	2	90	0	"tab"
6	"09"	"2011-11-14T...	2	90	0	"tab"
7	"08"	"2011-11-14T...	2	90	0	"tab"
8	"07"	"2011-11-14T...	1	100	0	"cash"
9	"06"	"2011-11-14T...	2	90	0	"tab"
10	"05"	"2011-11-14T...	2	90	0	"tab"
11	"04"	"2011-11-14T...	2	90	0	"tab"

```
d_type = facts.dimension(d=>d.type)
d_type.top(Infinity)
```

(index)	id	date	quantity	total	tip	type
0	"12"	"2011-11-14T...	1	200	100	"visa"
1	"03"	"2011-11-14T...	1	300	200	"visa"
2	"10"	"2011-11-14T...	2	90	0	"tab"
3	"09"	"2011-11-14T...	2	90	0	"tab"
4	"08"	"2011-11-14T...	2	90	0	"tab"
5	"06"	"2011-11-14T...	2	90	0	"tab"
6	"05"	"2011-11-14T...	2	90	0	"tab"
7	"04"	"2011-11-14T...	2	90	0	"tab"
8	"02"	"2011-11-14T...	2	190	100	"tab"
9	"01"	"2011-11-14T...	2	190	100	"tab"
10	"11"	"2011-11-14T...	2	200	0	"cash"
11	"07"	"2011-11-14T...	1	100	0	"cash"

(2) -----

```
d_tip.filterExact(0).top(Infinity)
```

(index)	id	date	q...	total	tip	type
0	"11"	"2011-11-14T17:25:45Z"	2	200	0	"cash"
1	"10"	"2011-11-14T17:22:59Z"	2	90	0	"tab"
2	"09"	"2011-11-14T17:07:21Z"	2	90	0	"tab"
3	"08"	"2011-11-14T16:58:03Z"	2	90	0	"tab"
4	"07"	"2011-11-14T16:54:06Z"	1	100	0	"cash"
5	"06"	"2011-11-14T16:53:41Z"	2	90	0	"tab"
6	"05"	"2011-11-14T16:48:46Z"	2	90	0	"tab"
7	"04"	"2011-11-14T16:30:43Z"	2	90	0	"tab"

```
d_tip.top(Infinity)
```

(index)	id	date	q...	total	tip	type
0	"11"	"2011-11-14T17:25:45Z"	2	200	0	"cash"
1	"10"	"2011-11-14T17:22:59Z"	2	90	0	"tab"
2	"09"	"2011-11-14T17:07:21Z"	2	90	0	"tab"
3	"08"	"2011-11-14T16:58:03Z"	2	90	0	"tab"
4	"07"	"2011-11-14T16:54:06Z"	1	100	0	"cash"
5	"06"	"2011-11-14T16:53:41Z"	2	90	0	"tab"
6	"05"	"2011-11-14T16:48:46Z"	2	90	0	"tab"
7	"04"	"2011-11-14T16:30:43Z"	2	90	0	"tab"

```
d_type.top(Infinity)
```

(index)	id	date	quantity	total	tip	type
0	"10"	"2011-11-14T...	2	90	0	"tab"
1	"09"	"2011-11-14T...	2	90	0	"tab"
2	"08"	"2011-11-14T...	2	90	0	"tab"
3	"06"	"2011-11-14T...	2	90	0	"tab"
4	"05"	"2011-11-14T...	2	90	0	"tab"
5	"04"	"2011-11-14T...	2	90	0	"tab"
6	"11"	"2011-11-14T...	2	200	0	"cash"
7	"07"	"2011-11-14T...	1	100	0	"cash"

(3) -----

```
d_type.filterExact('tab').top(Infinity)
```

(index)	id	date	qu...	total	tip	type
0	"10"	"2011-11-14T17:22:59Z"	2	90	0	"tab"
1	"09"	"2011-11-14T17:07:21Z"	2	90	0	"tab"
2	"08"	"2011-11-14T16:58:03Z"	2	90	0	"tab"
3	"06"	"2011-11-14T16:53:41Z"	2	90	0	"tab"
4	"05"	"2011-11-14T16:48:46Z"	2	90	0	"tab"
5	"04"	"2011-11-14T16:30:43Z"	2	90	0	"tab"

```
d_tip.top(Infinity)
```

(index)	id	date	qu...	total	tip	type
0	"10"	"2011-11-14T17:22:59Z"	2	90	0	"tab"
1	"09"	"2011-11-14T17:07:21Z"	2	90	0	"tab"
2	"08"	"2011-11-14T16:58:03Z"	2	90	0	"tab"
3	"06"	"2011-11-14T16:53:41Z"	2	90	0	"tab"
4	"05"	"2011-11-14T16:48:46Z"	2	90	0	"tab"
5	"04"	"2011-11-14T16:30:43Z"	2	90	0	"tab"

```
d_type.top(Infinity)
```

(index)	id	date	qu...	total	tip	type
0	"10"	"2011-11-14T17:22:59Z"	2	90	0	"tab"
1	"09"	"2011-11-14T17:07:21Z"	2	90	0	"tab"
2	"08"	"2011-11-14T16:58:03Z"	2	90	0	"tab"
3	"06"	"2011-11-14T16:53:41Z"	2	90	0	"tab"
4	"05"	"2011-11-14T16:48:46Z"	2	90	0	"tab"
5	"04"	"2011-11-14T16:30:43Z"	2	90	0	"tab"

Note the above, all dimensions have altered by the filtered row

(4) -----

```
@@ REMOVE FILTER ON DIMENSION.TIP
d_tip.filterAll().top(Infinity) <--- this remove filter on dimention.tip
```

(index)	id	date	quantity	total	tip	type
0	"02"	"2011-11-14T16:20:19Z"	2	190	100	"tab"
1	"01"	"2011-11-14T16:17:54Z"	2	190	100	"tab"
2	"10"	"2011-11-14T17:22:59Z"	2	90	0	"tab"
3	"09"	"2011-11-14T17:07:21Z"	2	90	0	"tab"
4	"08"	"2011-11-14T16:58:03Z"	2	90	0	"tab"
5	"06"	"2011-11-14T16:53:41Z"	2	90	0	"tab"
6	"05"	"2011-11-14T16:48:46Z"	2	90	0	"tab"
7	"04"	"2011-11-14T16:30:43Z"	2	90	0	"tab"

At the point in time "tab" filter is still in effect that is why only "tab" exist in the return

```
d_tip.top(Infinity)
```

(index)	id	date	qu...	total	tip	type
0	"02"	"2011-11-14T16:20:19Z"	2	190	100	"tab"
1	"01"	"2011-11-14T16:17:54Z"	2	190	100	"tab"
2	"10"	"2011-11-14T17:22:59Z"	2	90	0	"tab"
3	"09"	"2011-11-14T17:07:21Z"	2	90	0	"tab"
4	"08"	"2011-11-14T16:58:03Z"	2	90	0	"tab"
5	"06"	"2011-11-14T16:53:41Z"	2	90	0	"tab"
6	"05"	"2011-11-14T16:48:46Z"	2	90	0	"tab"
7	"04"	"2011-11-14T16:30:43Z"	2	90	0	"tab"

```
d_type.top(Infinity)
```

(index)	id	date	q...	total	tip	type
0	"10"	"2011-11-14T17:22:59Z"	2	90	0	"tab"
1	"09"	"2011-11-14T17:07:21Z"	2	90	0	"tab"
2	"08"	"2011-11-14T16:58:03Z"	2	90	0	"tab"
3	"06"	"2011-11-14T16:53:41Z"	2	90	0	"tab"
4	"05"	"2011-11-14T16:48:46Z"	2	90	0	"tab"
5	"04"	"2011-11-14T16:30:43Z"	2	90	0	"tab"
6	"02"	"2011-11-14T16:20:19Z"	2	190	100	"tab"
7	"01"	"2011-11-14T16:17:54Z"	2	190	100	"tab"

(5) -----

```
@@ REMOVE FILTER ON DIMENSION.TYPE
d_type.filterAll().top(Infinity) <--- this remove filter on dimention.type
```

(index)	id	date	quantity	total	tip	type
0	"12"	"2011-11-14T..."	1	200	100	"visa"
1	"03"	"2011-11-14T..."	1	300	200	"visa"
2	"10"	"2011-11-14T..."	2	90	0	"tab"
3	"09"	"2011-11-14T..."	2	90	0	"tab"
4	"08"	"2011-11-14T..."	2	90	0	"tab"
5	"06"	"2011-11-14T..."	2	90	0	"tab"
6	"05"	"2011-11-14T..."	2	90	0	"tab"
7	"04"	"2011-11-14T..."	2	90	0	"tab"
8	"02"	"2011-11-14T..."	2	190	100	"tab"
9	"01"	"2011-11-14T..."	2	190	100	"tab"
10	"11"	"2011-11-14T..."	2	200	0	"cash"
11	"07"	"2011-11-14T..."	1	100	0	"cash"

```
d_tip.top(Infinity)
```

(index)	id	date	quantity	total	tip	type
0	"03"	"2011-11-14T..."	1	300	200	"visa"
1	"12"	"2011-11-14T..."	1	200	100	"visa"
2	"02"	"2011-11-14T..."	2	190	100	"tab"
3	"01"	"2011-11-14T..."	2	190	100	"tab"
4	"11"	"2011-11-14T..."	2	200	0	"cash"
5	"10"	"2011-11-14T..."	2	90	0	"tab"
6	"09"	"2011-11-14T..."	2	90	0	"tab"
7	"08"	"2011-11-14T..."	2	90	0	"tab"
8	"07"	"2011-11-14T..."	1	100	0	"cash"
9	"06"	"2011-11-14T..."	2	90	0	"tab"
10	"05"	"2011-11-14T..."	2	90	0	"tab"
11	"04"	"2011-11-14T..."	2	90	0	"tab"

```
d_type.top(Infinity)
```

(index)	id	date	quantity	total	tip	type
0	"12"	"2011-11-14T..."	1	200	100	"visa"
1	"03"	"2011-11-14T..."	1	300	200	"visa"
2	"10"	"2011-11-14T..."	2	90	0	"tab"
3	"09"	"2011-11-14T..."	2	90	0	"tab"
4	"08"	"2011-11-14T..."	2	90	0	"tab"
5	"06"	"2011-11-14T..."	2	90	0	"tab"
6	"05"	"2011-11-14T..."	2	90	0	"tab"
7	"04"	"2011-11-14T..."	2	90	0	"tab"
8	"02"	"2011-11-14T..."	2	190	100	"tab"
9	"01"	"2011-11-14T..."	2	190	100	"tab"
10	"11"	"2011-11-14T..."	2	200	0	"cash"
11	"07"	"2011-11-14T..."	1	100	0	"cash"