

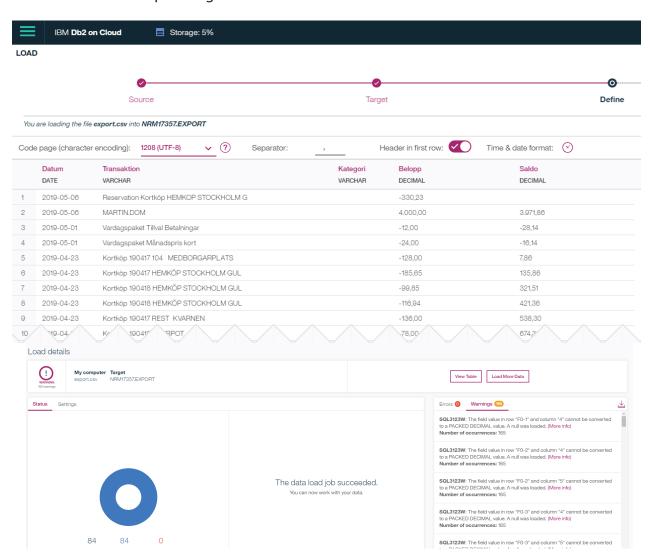
Stockholm

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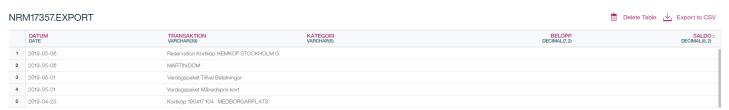
PRESENTATION

MANAGING HYBRID DATABASES

Uploading a CSV Bank Statement onto IBM DB2.



ENCOUNTERED PROBLEM: all negative values were loaded and returned as NULL.





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PRESENTATION

MANAGING HYBRID DATABASES

SOLVING THE ISSUE:

First step: In the original Bank Statement .xls file creating a new column which is a copy of transactions with absolute values.

F2	▼ (f _x =ABS(D2:D84)					
_/ A	В	С	D	Е	F	G
1 Datum	Transaktion	Kategori	Belopp	Saldo	Belopp_	pos
2 2019-05-06	Reservation Kortköp HEMKOP STOCKHOLM G		-330,23		330,23	
	MARTIN.DOM		4.000,00	3.971,86	4000	
4 2019-05-01	Vardagspaket Tillval Betalningar		-12,00	-28,14	12	
	Vardagspaket Månadspris kort		-24,00	-16,14	24	
6 2019-04-23	Kortköp 190417 104 MEDBORGARPLATS		-128,00	7,86	128	
7 2019-04-23	Kortköp 190417 HEMKOP STOCKHOLM GUL		-185,65	135,86	185,65	
8 2019-04-23	Kortköp 190418 HEMKOP STOCKHOLM GUL		-99,85	321,51	99,85	
9 2019-04-23	Kortköp 190418 HEMKOP STOCKHOLM GUL		-116,94	421,36	116,94	
10 2019-04-23	Kortköp 190417 REST KVARNEN		-136,00	538,30	136	
11 2019-04-23	Kortköp 190419 BEERPOT		-78,00	674,30	78	
12 2019-04-23	Kortköp 190419 PIERIAS LIVS		-49,00	752,30	49	
	Kortköp 190420 HEMKOP STOCKHOLM GUL		-49,95	801,30	49,95	
	Kortköp 190416 HEMKOP STOCKHOLM GUL		-149,09	851,25	149,09	
15 2019-04-16	MARTINA.DOM		1.000,00	1.000,34	1000	
16 2019-04-16	Kortköp 190414 IZ *GOTT SMAPLOC		-40,00	0,34	40	
17 2019-04-15	Kortköp 190413 7 ELEVEN 4119113		-66,00	40,34	66	
18 2019-04-15	Kortköp 190412 7 ELEVEN 4119113		-58,00	106,34	58	
19 2019-04-15	Kortköp 190412 HEMKOP STOCKHOLM GUL		-19,95	164,34	19,95	

Step two: using an Open Source Tool (Jupyter notebook) to read the updated .xls and convert to a .csv file with Python commandline

	Datum	Transaktion	Kategori	Belopp	Saldo	Belopp_pos
0	2019-05-06	Reservation Kortköp HEMKOP STOCKHOLM G	NaN	-330,23	NaN	330.23
1	2019-05-06	MARTIN.DOM	NaN	4.000,00	3.971,86	4000.00
2	2019-05-01	Vardagspaket Tillval Betalningar	NaN	-12,00	-28,14	12.00
3	2019-05-01	Vardagspaket Månadspris kort	NaN	-24,00	-16,14	24.00
4	2019-04-23	Kortköp 190417 104 MEDBORGARPLATS	NaN	-128,00	7,86	128.00

df.to_csv('bank.csv', encoding='utf-8')



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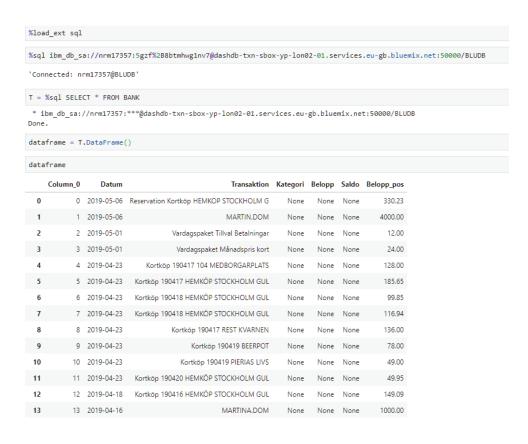
MANAGING HYBRID DATABASES

Step Three: Uploading the updated .csv on DB2 now shows new columns with positive values.

	Column_0 SMALLINT	Datum DATE	Transaktion VARCHAR	Kategori VARCHAR	Belopp DECIMAL	Saldo DECIMAL	Belopp_pos DECIMAL
1	0	2019-05-06	Reservation Kortköp HEMKOP STOCKHOLM G		-330,23		330.23
2	1	2019-05-06	MARTIN.DOM		4.000,00	3.971,86	4000.0
3	2	2019-05-01	Vardagspaket Tillval Betalningar		-12,00	-28,14	12.0
4		2019-05-01	Vardagspaket Månadspris kort		-24,00	-16,14	24.0

NRM17357	IRM17357.BANK							
	COLUMN_0 DATUM SMALLINT DATE	TRANSAKTION VARCHAR(39)	KATEGORI VARCHAR(5)	BELOPP DECIMAL(11, 4)	SALDO DECIMAL(11, 4)	BELOPP_POS DECIMAL(7, 2)		
1	0 2019-05-06	Reservation Kortköp HEMKOP S	TOCKH			330.23		
2	1 2019-05-08	MARTIN.DOM				4000.00		
3	2 2019-05-01	Vardagspaket Tillval Betalningar				12.00		
4	3 2019-05-01	Vardagspaket Månadspris kort				24.00		
5	4 2019-04-23	Kortköp 190417 104 MEDBORG	SARPLA1			128.00		
6	5 2019-04-23	Kortköp 190417 HEMKÖP STOC	KHOLM			185.65		
7	6 2019-04-23	Kortköp 190418 HEMKÖP STOC	KHOLM			99.85		
8	7 2019-04-23	Kortköp 190418 HEMKÖP STOC	KHOLM			116.94		
9	8 2019-04-23	Kortköp 190417 REST KVARNE	N			136.00		
10	9 2019-04-23	Kortköp 190419 BEERPOT				78.00		
11	10 2019-04-23	Kortköp 190419 PIERIAS LIVS				49.00		
12	11 2019-04-23	Kortköp 190420 HEMKÖP STO	CKHOLM			49.95		

Step Four: Accessing the updated DataBase on Cloud and converting the searchquery into a DataFrame.



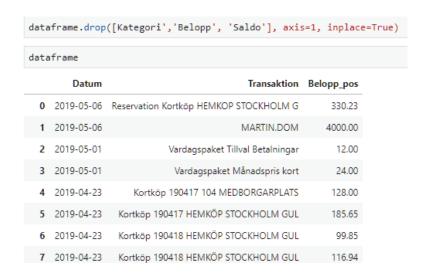


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PRESENTATION

MANAGING HYBRID DATABASES

Step Five: cleaning the Data, droping irrelevant columns



and performing the original search of 66SEK transactions:

			Tuttoutto	_	relopp_po	_					
15 2019-04-15			2019-04-15		019-04-15 Kortköp 190413 7 ELEVEN 4119					66.00)
9	9-04-	08	Kortköp 190405 DIREKTEN TAREQS TOBA		66.00)					
9	9-04-	08	Kortköp 190405 SHML KIOSK		66.00)					
9	9-03-	11	Kortköp 190309 GOTGATSBACKEN		66.00)					