

Supplementary Table S1: Continuous Feature Distribution

Feature	count	mean	std	min	25%	50%	75%	max
limit_bal	30000	167484.3227	129747.6616	10000	50000	140000	240000	1000000
age	30000	35.4855	9.217904068	21	28	34	41	79
bill_amt1	30000	51223.3309	73635.86058	-165580	3558.75	22381.5	67091	964511
bill_amt2	30000	49179.07517	71173.76878	-69777	2984.75	21200	64006.25	983931
bill_amt3	30000	47013.1548	69349.38743	-157264	2666.25	20088.5	60164.75	1664089
bill_amt4	30000	43262.94897	64332.85613	-170000	2326.75	19052	54506	891586
bill_amt5	30000	40311.40097	60797.15577	-81334	1763	18104.5	50190.5	927171
bill_amt6	30000	38871.7604	59554.10754	-339603	1256	17071	49198.25	961664
pay_amt1	30000	5663.5805	16563.28035	0	1000	2100	5006	873552
pay_amt2	30000	5921.1635	23040.8704	0	833	2009	5000	1684259
pay_amt3	30000	5225.6815	17606.96147	0	390	1800	4505	896040
pay_amt4	30000	4826.076867	15666.15974	0	296	1500	4013.25	621000
pay_amt5	30000	4799.387633	15278.30568	0	252.5	1500	4031.5	426529
pay_amt6	30000	5215.502567	17777.46578	0	117.75	1500	4000	528666

Supplementary Table S2: Categorical Feature Distribution

Feature Name	Number Value	Meaning	Count
Sex	1	Male	11888
	2	Female	18112
Education	0	Others	14
	1	Graduate School	10585
	2	University	14030
	3	High School	4917
	4	Others	123
	5	Unknown	280
	6	Unknown	51
Marriage	0	Others	54
	1	Married	13659
	2	Single	15964
	3	Divore	323
Pay_1 (Repayment status in September, 2005)	-2	No Consumption	2759
	-1	Paid in full	5686
	0	The use of revolving credit	14737

	1	Payment delay for 1 month	3688
	2	Payment delay for 2 month	2667
	3	Payment delay for 3 month	322
	4	Payment delay for 4 month	76
	5	Payment delay for 5 month	26
	6	Payment delay for 6 month	11
	7	Payment delay for 7 month	9
	8	Payment delay for 8 month	19
Pay_2 (Repayment status in August, 2005)	-2	No Consumption	3782
	-1	Paid in full	6050
	0	The use of revolving credit	15730
	1	Payment delay for 1 month	28
	2	Payment delay for 2 month	3927
	3	Payment delay for 3 month	326
	4	Payment delay for 4 month	99
	5	Payment delay for 5 month	25
	6	Payment delay for 6 month	12
	7	Payment delay for 7 month	20
	8	Payment delay for 8 month	1
Pay_3 (Repayment status in July, 2005)	-2	No Consumption	4085
	-1	Paid in full	5938
	0	The use of revolving credit	15764
	1	Payment delay for 1 month	4
	2	Payment delay for 2 month	3819
	3	Payment delay for 3 month	240
	4	Payment delay for 4 month	76
	5	Payment delay for 5 month	21
	6	Payment delay for 6 month	23
	7	Payment delay for 7 month	27
	8	Payment delay for 8 month	3
Pay_4 (Repayment status in June, 2005)	-2	No Consumption	4085
	-1	Paid in full	5938
	0	The use of revolving credit	15764
	1	Payment delay for 1 month	4
	2	Payment delay for 2 month	3819
	3	Payment delay for 3 month	240
	4	Payment delay for 4 month	76
	5	Payment delay for 5 month	21
	6	Payment delay for 6 month	23

	7	Payment delay for 7 month	27
	8	Payment delay for 8 month	3
Pay_5 (Repayment status in May, 2005)	-2	No Consumption	4546
	-1	Paid in full	5539
	0	The use of revolving credit	16947
	1	Payment delay for 1 month	0
	2	Payment delay for 2 month	2626
	3	Payment delay for 3 month	178
	4	Payment delay for 4 month	84
	5	Payment delay for 5 month	17
	6	Payment delay for 6 month	4
	7	Payment delay for 7 month	58
	8	Payment delay for 8 month	1
Pay_6 (Repayment status in April, 2005)	-2	No Consumption	4895
	-1	Paid in full	5740
	0	The use of revolving credit	16286
	1	Payment delay for 1 month	0
	2	Payment delay for 2 month	2766
	3	Payment delay for 3 month	184
	4	Payment delay for 4 month	49
	5	Payment delay for 5 month	13
	6	Payment delay for 6 month	19
	7	Payment delay for 7 month	46
	8	Payment delay for 8 month	2