Data description

Var#	Variable Name	Description	Variable Type	Description
1.	OBS#	Observation No.	Categorical	
2.	CHK_ACCT	Checking account status	Categorical	0 : < 0 DM 1: 0 < ...< 200 DM 2 : => 200 DM 3: no checking account
3.	DURATION	Duration of credit in months	Numerical	
4.	HISTORY	Credit history	Categorical	0: no credits taken 1: all credits at this bank paid back duly 2: existing credits paid back duly till now 3: delay in paying off in the past 4: critical account
5.	NEW_CAR	Purpose of credit	Binary	car (new) 0: No, 1: Yes
6.	USED_CAR	Purpose of credit	Binary	car (used) 0: No, 1: Yes
7.	FURNITURE	Purpose of credit	Binary	furniture/equipment 0: No, 1: Yes
8.	RADIO/TV	Purpose of credit	Binary	radio/television 0: No, 1: Yes
9.	EDUCATION	Purpose of credit	Binary	education 0: No, 1: Yes
10.	RETRAINING	Purpose of credit	Binary	retraining 0: No, 1: Yes
11.	AMOUNT	Credit amount	Numerical	
12.	SAV_ACCT	Average balance in savings account	Categorical	0 : < 100 DM 1 : 100<= ... < 500 DM 2 : 500<= ... < 1000 DM 3 : =>1000 DM 4 : unknown/ no savings account
13.	EMPLOYMENT	Present employment since	Categorical	0 : unemployed 1: < 1 year 2 : 1 <= ... < 4 years 3 : 4 <=... < 7 years 4 : >= 7 years
14.	INSTALL_RATE	Installment rate as % of disposable income	Numerical	
15.	MALE_DIV	Applicant is male and divorced	Binary	0: No, 1: Yes
16.	MALE_SINGLE	Applicant is male and single	Binary	0: No, 1: Yes

17.	MALE_MAR_WID	Applicant is male and married or a widower	Binary	0: No, 1: Yes
18.	CO-APPLICANT	Application has a co-applicant	Binary	0: No, 1: Yes
19.	GUARANTOR	Applicant has a guarantor	Binary	0: No, 1: Yes
20.	PRESENT_RESIDENT	Present resident since - years	Categorical	0: <= 1 year
				1: <=2 years
				2: 2<…<=3 years
				3: > 4years
21.	REAL_ESTATE	Applicant owns real estate	Binary	0: No, 1: Yes
22.	PROP_UNKN_NONE	Applicant owns no property (or unknown)	Binary	0: No, 1: Yes
23.	AGE	Age in years	Numerical	
24.	OTHER_INSTALL	Applicant has other installment plan credit	Binary	0: No, 1: Yes
25.	RENT	Applicant rents	Binary	0: No, 1: Yes
26.	OWN_RES	Applicant owns residence	Binary	0: No, 1: Yes
27.	NUM_CREDITS	Number of existing credits at this bank	Numerical	
28.	JOB	Nature of job	Categorical	0: unemployed/unskilled-non-resident
				1: unskilled-resident
				2: skilled employee / official
				3: management/self-employed/highly qualified employee/officer
29.	NUM_DEPENDENTS	Number of people for whom liable to provide maintenance	Numerical	
30.	TELEPHONE	Applicant has phone in his or her name	Binary	0: No, 1: Yes
31.	FOREIGN	Foreign worker	Binary	0: No, 1: Yes
32	RESPONSE	Credit rating is good	Binary	0: No, 1: Yes

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ORIGINAL DATA DESCRIPTION

Description of the German credit dataset.

1. Title: German Credit data

2. Source Information

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3. Number of Instances: 1000

Two datasets are provided. The original dataset, in the form provided by Prof. Hofmann, contains categorical/symbolic attributes and is in the file "german.data".

For algorithms that need numerical attributes, Strathclyde University produced the file "german.data-numeric". This file has been edited and several indicator variables added to make it suitable for algorithms which cannot cope with categorical variables. Several attributes that are ordered categorical (such as attribute 17) have been coded as integer. This was the form used by StatLog.

4. Number of Attributes German: 20 (7 numerical, 13 categorical)
   Number of Attributes German. Number: 24 (24 numerical)

5. Attribute description for German
Attribute 1: (qualitative) Status of existing checking account
           A11: …< 0 DM
           A12: 0 <= ... < 200 DM
           A13: …>= 200 DM / salary assignments for at least 1 year
          A14: no checking account
Attribute 2: (numerical) Duration in month

Attribute 3: (qualitative) Credit history
           A30: no credits taken/ all credits paid back duly
           A31: all credits at this bank paid back duly
           A32: existing credits paid back duly till now
           A33: delay in paying off in the past
           A34: critical account/other credits existing (not at this bank)

Attribute 4: (qualitative) Purpose
        A40: car (new)
        A41: car (used)
        A42: furniture/equipment
        A43: radio/television
        A44: domestic appliances
        A45: repairs
        A46: education
        A47: (vacation - does not exist?)
        A48: retraining
        A49: business
        A410: others

Attribute 5: (numerical) Credit amount

Attribute 6: (qualitative) Savings account/bonds
        A61: ... < 100 DM
        A62:   100 <= ... < 500 DM
        A63:   500 <= ... < 1000 DM
        A64: … >= 1000 DM
        A65:   unknown/ no savings account

Attribute 7: (qualitative) Present employment since
        A71: unemployed
        A72: ... < 1 year
        A73: 1 <= ... < 4 years
        A74: 4 <= ... < 7 years
        A75: ... >= 7 years

Attribute 8: (numerical) Installment rate in percentage of disposable income

Attribute 9: (qualitative) Personal status and sex
        A91: male   : divorced/separated
        A92: female: divorced/separated/married
        A93: male   : single
        A94: male   : married/widowed
        A95: female : single

Attribute 10: (qualitative) Other debtors / guarantors
        A101: none
        A102: co-applicant
        A103: guarantor

Attribute 11: (numerical) Present residence since

Attribute 12: (qualitative) Property
        A121: real estate
        A122: if not A121: building society savings agreement/life insurance
        A123: if not A121/A122: car or other, not in attribute 6
        A124: unknown / no property

Attribute 13: (numerical) Age in years

Attribute 14: (qualitative) other installment plans
        A141: bank
        A142: stores
        A143: none

Attribute 15: (qualitative) Housing
        A151: rent
        A152: own
        A153: for free

Attribute 16: (numerical) Number of existing credits at this bank

Attribute 17: (qualitative) Job
        A171: unemployed/ unskilled - non-resident
        A172: unskilled - resident
        A173: skilled employee / official
        A174: management/ self-employed/ highly qualified employee/ officer

Attribute 18: (numerical) Number of people being liable to provide maintenance for

Attribute 19: (qualitative) Telephone
        A191: none
        A192: yes, registered under the customers name

Attribute 20: (qualitative) foreign worker
        A201: yes
        A202: no

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