CS105 Statistical Thinking for Data Science, 2024-25 Term 2 School of Computing and Information Systems, Singapore Management University

Dataset Descriptions and Data Dictionaries

1 Climate dataset

Filename: climate.csv

Description: The dataset contains climate or atmospheric data, and can be used to investigate the impact of various factors on the average global temperature. Each row corresponds to climate or atmospheric data captured for a given month. The dataset contains 308 rows and 11 columns.

Name	Description	Type	Details
Year	Year of observation	Categorical	
Month	Month of observation	Categorical	
MEI	Multivariate El Nino Southern Oscillation index (MEI)	Numerical	A measure of the strength of the El Nino/La
			Nina-Southern Oscillation
CO2	Atmospheric concentration of carbon dioxide	Numerical	Measured in parts per million by volume
CH4	Atmospheric concentration of methane	Numerical	Measured in parts per million by volume
N2O	Level of atmospheric concentration of nitrous oxide	Categorical	Possible values: "H", "L"
CFC-11	Atmospheric concentration of trichlorofluoromethane	Numerical	Measured in parts per billion by volume
CFC-12	Atmospheric concentration of dichlorodifluoromethane	Numerical	Measured in parts per billion by volume
TSI	Level of Total Solar Irradiance. TSI is the rate at which	Categorical	Possible values: "H", "M", "L"
	sun's energy is deposited per unit area		
Aerosols	Level of stratospheric "aerosol optical depth" at 550nm.	Categorical	Possible values: "H", "M", "L"
	This is linked to volcanoes, as eruptions result in new		
	particles added to atmosphere		
Temp	Difference in temperature between average global	Numerical	
	temperature and a reference value		

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2 Credit dataset

Filename: credit.csv

Description: The dataset contains data of individuals applying for a credit facility in a bank. Each row corresponds to a different applicant and contains attributes captured by bank during an application. The dataset contains 1000 rows and 20 columns.

Description	Type	Details
Identification number	Categorical	
Status of checking account	Categorical	1: \$0; 2: <\$200; 3: >=\$200
_		4: no checking account
Credit duration in months	Numerical	
Credit history	Categorical	0: no credits taken
		1: all credits paid back
		2: existing credits paid back till now
		3: delay in paying off in the past
D. C. P.	G 1	4: critical account
Purpose of credit	Categorical	0: car (new); 1: car (used)
		2: furniture/equipment; 3: radio/television 4: domestic appliances; 5: repairs
		6: education; 7: vacation; 8: retraining
		9: business; 10: others
Credit amount	Numerical	7. business, 10. others
		1: < \$100; 2: \$100 - \$500
8	3	3: \$500 - \$1000; 4: >\$3000
		5: unknown/no savings account
Length of current employment	Categorical	1: unemployed; 2: <1 year
		3: 1 - 4 years; 4: 4 - 7 years; 5: >7 years
	Numerical	
Marital status and sex	Categorical	1: male, divorced/separated
		2: male, single
		3: male, married/widowed
04 114	G 1	4: female
		1: none; 2: co-applicant; 3: guarantor
Number of years staying in current residence	Categorical	1: < 1 year; 2: 1-2 years; 3: 2-3 years 4: >3 years
Asset ownership	Categorical	1: real estate
Asset ownership	Categorical	2: savings agreement/life insurance (if no 1)
		3: car or other (if no 1, 2); 4: unknown/none
Age in years	Numerical	
Credit rating	Numerical	
		1: bank; 2: stores; 3: none
		1: rent; 2: own; 3: for free
		1. unamplayed/unalcill-1
Оссираноп	Categorical	1 : unemployed/ unskilled - non-resident 2 : unskilled - resident
		3 : skilled employee / official
		4 : management/ self-employed
Number of dependents	Numerical	
		1: none; 2: yes, registered to customer
		1: yes; 2: no
Loan approval status	Categorical	1: approved; 0: not approved
	Identification number Status of checking account Credit duration in months Credit history Purpose of credit Credit amount Status of savings account Length of current employment Installment rate as percentage of disposable income Marital status and sex Other debtors or guarantors Number of years staying in current residence Asset ownership Age in years Credit rating Other existing credit in place Type of apartment Number of existing credits Occupation Number of dependents Has telephone Foreign worker or not	Identification number Categorical Status of checking account Categorical Credit duration in months Numerical Credit history Categorical Purpose of credit Categorical Credit amount Numerical Status of savings account Categorical Length of current employment Categorical Installment rate as percentage of disposable income Numerical Marital status and sex Categorical Other debtors or guarantors Categorical Number of years staying in current residence Categorical Asset ownership Categorical Age in years Numerical Credit rating Numerical Other existing credit in place Categorical Type of apartment Categorical Number of existing credits Numerical Occupation Categorical Number of dependents Numerical Has telephone Categorical Foreign worker or not Categorical

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3 Employee dataset

Filename: employee.csv

Description: The dataset contains HR data related to a sales team. Specifically the dataset captures employees' information at the beginning of each month, including if the employee quit in that given month, total sales acquired so far in his/her career and his/her latest quarterly rating. The dataset contains 2381 rows and 13 columns.

Name	Description	Type	Details
Date	Record capture date	Categorical	Date of format dd/mm/yyyy
Emp_ID	Employee ID	Categorical	
Age	Age	Numerical	
Gender	Gender	Categorical	"Male", "Female"
City	City where employee works	Categorical	"C1", "C2",, "C29"
Education	Highest education level of employee	Categorical	"College", "Bachelor", "Master"
Salary	Last drawn salary	Numerical	
Join_Date	Date of joining the sales team	Categorical	Date of format dd/mm/yyyy
Last_Work_Date	Last working date with the sales team	Categorical	Date of format dd/mm/yyyy. If employee does not quit in the given month where the record is captured, this field would be empty
Join_Designation	Designation level when first joined	Categorical	1, 2, 3, 4, 5
Designation	Designation level at the time record is captured	Categorical	1, 2, 3, 4, 5
Total_Sales_Acquired	Total sales generated by employee since joining the team	Numerical	
Quarterly Rating	Latest quarterly performance rating	Categorical	1, 2, 3, 4