

Data Terminology

After this video you will be able to..

- Describe what a feature is and how it relates to a sample
- Name some alternative terms for 'feature'
- Summarize how a categorical feature differs from a numerical feature

Terms to Describe Data

The diagram shows a table with 5 columns and 4 rows. A bracket labeled 'Variables' spans the top 5 columns. A bracket labeled 'Samples' spans the first 4 rows. The table contains the following data:

ID	Date	MinTemp	MaxTemp	Rainfall
1	2010-06-17	55	75	0.1
2	2010-06-18	52	78	0.0
3	2010-06-19	50	78	0.0
4	2010-06-20	54	77	0.0

Terms to Describe Data

Variables

ID	Date	MinTemp	MaxTemp	Rainfall
1	2010-06-17	55	75	0.1
2	2010-06-18	52	78	0.0
3	2010-06-19	50	78	0.0
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Samples

Terms to Describe Data

Variables

Samples

ID	Date	MinTemp	MaxTemp	Rainfall
1	2010-06-17	55	75	0.1
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Other Names for 'Sample'

sample

row

instance

observation

record

example

ID	Date	MinTemp	MaxTemp	Rainfall
1	2010-06-17	55	75	0.1
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Other Names for 'Variable'

variable

feature


dimension

column

attribute

field

Variables



ID	Date	MinTemp	MaxTemp	Rainfall
1	2010-06-17	55	75	0.1
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Data Types

- Most common

Numeric

Categorical

- Others

String

Date

...

Numeric Variables

- Values are numbers
- Also called 'quantitative'

1

7×10^5

163.92

-0.4902

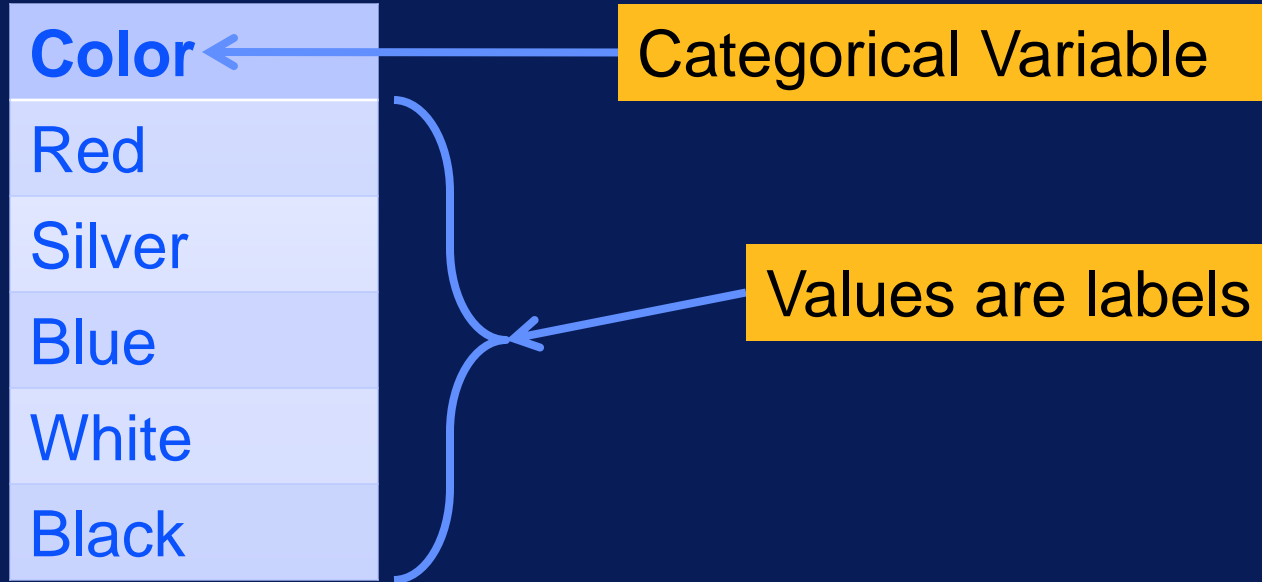
Examples of Numeric Variables

- Height
- Score on an exam
- Number of transactions per hour
- Change in stock price



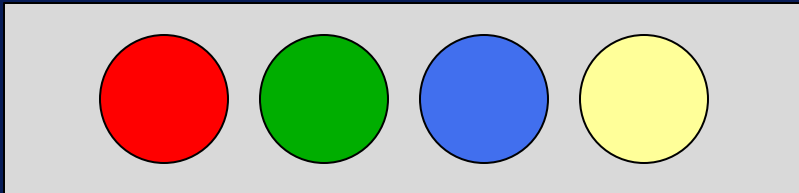
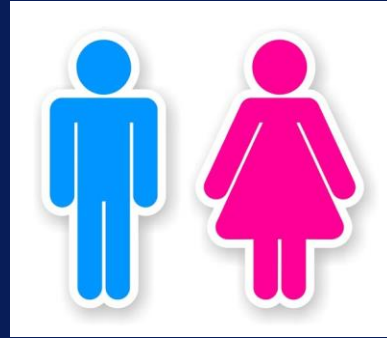
Categorical Variables

- Values are labels, names, or categories
- Also called 'qualitative' or 'nominal'



Examples of Categorical Variables

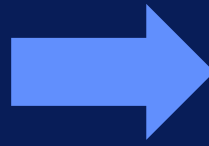
- Gender
- Marital status
- Type of customer
- Product categories
- Color of an item



Sample

- Instance
- Record
- Row
- Observation
- ...

Variable



- Feature
- Field
- Column
- ...

Categorical
Qualitative
Nominal

Numeric
Quantitative

Variables				
ID	Date	MinTemp	MaxTemp	Rainfall
1	2010-06-17	55	75	0.1
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Samples