Types of Data

Problem: Can you identify which data types are present in following table ?

A)   Numerical - Continuous

B)   Numerical - Discrete

C)   Categorical - Ordinal

D)   Categorical – Nominal

E)   All Of The Above

Status	Channel	Category	Size	Qty	currency	Amount	Weight	ship-state	ship-postal-code	ship-country	B2B
Delivered	Myntra	kurta	XXL	1	INR	376	1.2	PUNJAB	140301	IN	FALSE
Delivered	Myntra	kurta	XXL	1	INR	376	3.1	PUNJAB	140301	IN	FALSE
Delivered	Myntra	Set	S	1	INR	453	4	WEST BENGAL	700029	IN	FALSE
Delivered	Amazon	Set	M	1	INR	729	4.6	TAMIL NADU	613007	IN	FALSE
Delivered	Myntra	kurta	XXL	1	INR	544	4.6	HARYANA	122001	IN	FALSE
Delivered	Flipkart	Western Dress	XXL	One	INR	735	54.23	MAHARASHTRA	416436	IN	FALSE
Delivered	Meesho	kurta	XXL	One	INR	735	3.2	KARNATAKA	560029	IN	FALSE
Delivered	Others	kurta	M	One	INR	435	3.98	HARYANA	122001	IN	FALSE
Delivered	Amazon	kurta	XL	One	INR	385	4.6	KARNATAKA	562149	IN	FALSE
Delivered	Myntra	kurta	L	One	INR	771	89.3	ANDHRA PRADESH	520002	IN	FALSE
Delivered	Amazon	kurta	S	One	INR	517	4.6	KERALA	695018	IN	FALSE
Delivered	Myntra	Top	M	1	INR	399	4.6	TAMIL NADU	631003	IN	FALSE
Delivered	Amazon	Set	XL	1	INR	786	76	ASSAM	781017	IN	FALSE
Delivered	Myntra	Set	M	1	INR	911	4.6	KARNATAKA	562125	IN	FALSE
Delivered	Amazon	Set	M	1	INR	967	4.76	TELANGANA	500098	IN	FALSE
Delivered	Nalli	Top	L	1	INR	523	4.6	DELHI	110062	IN	FALSE
Delivered	Meesho	Set	XL	1	INR	1115	9.32	ODISHA	751022	IN	FALSE

Types of Data: Theory

Data types

Numerical: Are numbers
- Age
- Weight
- Blood Pressure
- Number of cars

Categorical: Are classes. Generally, are non-numeric in nature.
- Colors
- Gender
- Country
- Ethnicity

Continuous: Values are any number between a range: that is, generally infinite possibilities
- Weight (2.3Kg, 3.45Kg, etc.)
- Height(1.73 m, 1.56 m, etc.)

Discrete: Values are integers
- Age in years(3, 5, 34, etc.)
- Numbers of cars (3, 5, etc.)
- Game Score (+2, -3, -5, etc.)

Ordinal: Hierarchy in classes
- Type of BP (low BP < medium BP < High BP)
- Size of shirt (S < M < L < XL)

Nominal: No Hierarchy
- Color (Red, Green, etc.)
- Gender (M, F)
- Country (USA, India, etc.)

Types of Data: Examples

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
1						
2	1	5.1	3.5	1.4	0.2	Iris-setosa
3	2	4.9	3.0	1.4	0.2	Iris-setosa
4	3	4.7	3.2	1.3	0.2	Iris-setosa
5	4	4.6	3.1	1.5	0.2	Iris-setosa
6	5	5.0	3.6	1.4	0.2	Iris-setosa
7	6	5.4	3.9	1.7	0.4	Iris-setosa
8	7	4.6	3.4	1.4	0.3	Iris-setosa
9	8	5.0	3.4	1.5	0.2	Iris-setosa
10	9	4.4	2.9	1.4	0.2	Iris-setosa
11	10	4.9	3.1	1.5	0.1	Iris-setosa

Numerical
(Continuous)

Categorical
(Nominal)

Types of Data: Examples

	total_bill	tip	sex	smoker	day	time	size
2	16.99	1.01	Female	No	Sun	Dinner	2
3	10.34	1.66	Male	No	Sun	Dinner	3
4	21.01	3.5	Male	No	Sun	Dinner	3
5	23.68	3.31	Male	No	Sun	Dinner	2
6	24.59	3.61	Female	No	Sun	Dinner	4
7	25.29	4.71	Male	No	Sun	Dinner	4
8	8.77	2.0	Male	No	Sun	Dinner	2
9	26.88	3.12	Male	No	Sun	Dinner	4
10	15.04	1.96	Male	No	Sun	Dinner	2
11	14.78	3.23	Male	No	Sun	Dinner	2

Can be Categorical-ordinal

Numerical (discrete)

Numerical (Continuous)

Categorical (nominal)

Types of Data: Examples

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Delivered	Myntra	kurta	L	One	INR	771	89.3	ANDHRA PRADESH	520002	IN	FALSE
Delivered	Amazon	kurta	S	One	INR	517	4.6	KERALA	695018	IN	FALSE
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Delivered	Meesho	Set	XL	1	INR	1115	9.32	ODISHA	751022	IN	FALSE

Categorical (Nominal) — handwritten annotation pointing to Status, Channel, Category

Categorical (ordinal) — handwritten annotation pointing to Size

Categorical (Nominal) — handwritten annotation pointing to ship-country, B2B

Types of Data: Examples

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Numerical discrete ↑ (Amount)

Numerical Continuous ↑ (Weight)

STOP

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