

Normalization

Class examples

Example I: Normalization of datasets

- Which normal form (NF) is the dataset provided? And why?
- If unnormalized, can you normalize the dataset to highest NF to ensure that database is void of data redundancy

OID	O_Date	CID	C_Name	C_State	PID	P_Desc	P_Price	Qty
1006	10/24/09	2	Apex	NC	7, 5, 4	Table, Desk, Chair	800, 325, 200	1, 1, 5
1007	10/25/09	6	Acme	GA	11, 4	Dresser, Chair	500, 200	4, 6

Table 1: eliminated the nulls and multivalued

OID	O_Date	CID	C_Name	C_State	PID	P_Desc	P_Price	Qty
1006	10/24/09	2	Apex	NC	7	Table	800	1
1006	10/24/09	2	Apex	NC	5	Desk	325	1
1006	10/24/09	2	Apex	NC	4	Chair	200	5
1007	10/25/09	6	Acme	GA	11	Dresser	500	4
1007	10/25/09	6	Acme	GA	4	Chair	200	6

Example II: Normalization of datasets

- Which normal form (NF) is the dataset provided?
- If unnormalized, can you normalize the dataset to highest NF to ensure that database is void of data redundancy

CompID	CompName	DeptID	DeptName	ProductID	ProdName	ProdTypeID	ProdTypeName	Date	Value
1	ACME VR	1	Production	1	VR1000	1	Headset	01/23/2022	45
1	ACME VR	1	Production	0	No Product			01/24/2022	-90
1	ACME VR	2	HR	0	No Product			01/23/2022	78
2	ACME Movies	3	Finance	0	No Product			01/23/2022	80
2	ACME Movies	1	Production	2	MC9	2	Camera	01/23/2022	50