

For the example below we have one big table. Put the table in normalized form.

SID = Student ID, S_Name= Student Name,

CID = Course ID, C_Name = Course Name, Grade = Student's Grade in Course

Faculty = Faculty Name, F_Phone = Faculty Phone

Functional Dependencies are:

$SID \rightarrow S_name$ $SID \text{ and } CID \rightarrow Grade$ $CID \rightarrow C_name$

$CID \rightarrow F_Name$ $F_Name \rightarrow F_phone$

SID	CID	S_name	C_name	Grade	F_Name	F_phone
1	IS318, IS301	Adams	Database, EC	A,B	Howser, Langley	60192, 45869
2	IS318	Jones	Database	A	Howser	60192
3	IS318	Smith	Database	B	Howser	60192
4	IS301, IS318	Baker	EC, Database	A,B	Langley, Howser	45869, 60192

Put the above table in 1NF Tables

Put the above table in 2NF

Put the above table in 3NF Tables

Final set of Tables with meaningful names and PKs and FKs

For the example below we have one big table. Put the table in normalized form.

OID = Order ID, O_Date= Order Date,

CID = Customer ID, C_Name = Customer Name, C_State = Customer's State,

PID = project id, P_Desc =Project Name, P_Price = Product Price, Qty = Quantity Purchased

Note: 7, 5, 4 means three Product IDs. Similarly, 1, 1, 5 means three Quantities.

Functional Dependencies are:

OID -> O_Date CID -> C_Name PID -> P_Desc PID -> P_Price

OID -> CID CID -> C_State PID and OID -> Qty

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

Put the above table in 1NF Tables

Put the above table in 2NF

Put the above table in 3NF Tables

Final set of Tables with meaningful names and PKs and FKs

For the example below we have one big table representing a company's data on their projects and employees. Put the table in normalized form.

DID = Department ID, Dname = Department Name

EID = Employee ID, Ename = Employee Name, Btime = Budgeted Time

PID = Project ID, Pname = Project Name

Functional Dependencies are:

DID → Dname EID → Ename EID and PID → Btime

EID → DID PID → Pname

DID	Dname	EID	Ename	PID	Pname	Btime
10	Finance	1, 5, 11	Huey, Dewey, Louie	27, 25, 22	Alpha, Beta, Gamma	4.5, 3, 7
14	R&D	2, 4,	Jack, Jill	26, 21	Pail, Hill	8, 9

Put the above table in 1NF Tables

Put the above table in 2NF

Put the above table in 3NF Tables

Final set of Tables with meaningful names and PKs and FKs