

Emp. num + ProjNo — Prime attr.

others are Non - prime attr.

F.D →

$\boxed{\text{Eno} + \text{Pno} \rightarrow \text{Hours worked}}$ T_1 15 T

F.D → $\boxed{\begin{array}{l} \text{Eno} \rightarrow \text{Ename} \\ \text{Eno} \rightarrow \text{Job code} \rightarrow \text{Job title} \end{array}}$ T_2 8 T

$\boxed{\text{Projno} \rightarrow \text{Completion date}}$ — T_3 3 T

BNF: — T_2 there is transitive dependency

$\text{Eno}, \text{Ename} \text{ Job code} \left| \begin{array}{l} \text{Job code} \rightarrow \text{Job title} \\ 3T \end{array} \right.$

F — Table is first Normal format: —

invno + prod no → Qty sold } discount invno & prod. }
 " ————— } Discount } — T_1 5T + 4Attr.

$\boxed{\begin{array}{l} \text{invno} \rightarrow \text{invdt} \\ \text{invno} \rightarrow \text{ordno} \\ \text{invno} \rightarrow \text{challan no.} \\ \text{invno} \rightarrow \text{custno} \rightarrow \text{custname} \\ \text{invno} \rightarrow \text{invval} \end{array}}$ } invoice Table.
 $T_2 \rightarrow 3T + 7Attr.$

$\boxed{\begin{array}{l} \text{Prodno} \rightarrow \text{Prodname} \\ \text{Prodno} \rightarrow \text{Rate} \end{array}}$ $T_3 \rightarrow 4T + 3Attr.$

no - Transitive dependency: —

T_4 custno → custname — 2Attr + 2T.

Tables for Normalization:
T1 for Supermarket:

Inv.no	inv Date	Ord. Date	Challan No	Cust Cd	Cust Name	Prod No	Prod Name	Qty Sold	Rate	Disc	Inv. Value
112	12/08/97	1	1	C1	S.Srikant	P1	Pen	2	8	Nil	38
112	12/08/97	1	1	C1	S.Srikant	P2	T.Book	1	22	Nil	38
113	16/08/97	1	1	C4	Ajay	P4	Pencil	1	12	Nil	12
114	16/08/97	1	1	C1	S.Srikant	P8	WBook	2	22	Nil	132
114	16/08/97	1	1	C1	S.Srikant	P2	T.Book	4	22	Nil	132

T2 for Software Company:

Emp.Num	Emp. Name	Job Code	Job - Title	Proj. No	Completion Date	Hours Worked
120	Jones	1	Programmer	01	17/7	37
120	Jones	1	Programmer	08	1/12	12
121	Sachin	1	Programmer	01	17/7	45
121	Sachin	1	Programmer	08	1/12	21
121	Sachin	1	Programmer	12	21/3	107
270	Sunil	2	Analyst	08	1/12	40
270	Sunil	2	Analyst	12	21/3	78
273	Kapil	3	Designer	01	17/7	22
274	Gautam	2	Analyst	12	21/3	41
279	Ajay	1	Programmer	01	17/7	27
279	Ajay	1	Programmer	08	1/12	20
279	Ajay	1	Programmer	12	21/3	51
301	Smith	1	Programmer	01	17/7	16
301	Smith	1	Programmer	12	21/3	85
306	Brook	3	Designer	12	21/3	67