# LAB 1 - DBI202

Name: Trần Thanh Dương Roll Number: SE160185 Class: Al1602

## **Exercise 1:**

#### 1NF:

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

## 2NF:

Orders table (key = OID)

	· · ·	•		
OID	O_Date	CID	C_Name	C_State
1006	10/24/09	2	Apex	NC
1007	10/25/09	6	Acme	GA

Products table (key = PID)

PID	P_Desc	P_Price
4	Chair	200
5	Desk	325
7	Table	800
11	Dresser	500

Result table (key = OID + PID)

	` '	,
OID	Qty	PID
1006	1	7
1006	1	5
1006	5	4
1007	4	11
1007	6	4

#### 3NF:

1

 $\infty$ 

Products table (key = PID)

PID	P_Desc	P_Price
4	Chair	200
5	Desk	325
7	Table	800
11	Dresser	500

Orders table (key = OID)

	Oracis	table (Rey	CIDI
>	OID	O_Date	CID
	1006	10/24/09	2
	1007	10/25/09	6

Customers table (key = CID)

CID	C_Name	C_State
2	Apex	NC
6	Acme	GA

Result table (key = OID + PID)  $\infty$ 

resure easi	e (ne)	D 1 1 1 1 1 1 1 1 3
OID	Qty	PID
1006	1	7
1006	1	5
1006	5	4
1007	4	11
1007	6	4

## **Exercise 2:**

## **Functional Dependencies:**

DID → Dname

 $EID \rightarrow Ename$  $EID \rightarrow DID$   $PID \rightarrow Pname$  $EID, PID \rightarrow Btime$ 

#### 2NF:

Employee Table (key = EID)

		,	
DID	Dname	EID	Ename
10	Finance	1	Huey
10	Finance	5	Dewey
10	Finance	11	Louie
14	R&D	2	Jack
14	R&D	4	Jill
	•	1	

Project Table (key = PID)

PID	Pname
21	Hill
22	Gamma
25	Beta
26	Pail
27	Alpha

Result Table (key = EID + PID)  $\infty$  FID Rtime PID

EID	Btime	PID
1	4.5	27
5	3	25
11	7	22
2	8	26
4	9	21

## 3NF:

Depar	tment	: Table (k	key = DID)	_ 1	Employee	Table (key	= EID)	)	Pro	ject	: Table (ke	y = PID
DID		Dna	me	╛	EID	Ename	DIE	)	PII	)	Pname	
10		Fina	ınce		1	Huey	10		21		Hill	
14		R&E	)		2	Jack	14		22		Gamma	
	1				4	Jill	14		25		Beta	
					5	Dewey	10		26		Pail	
					11	Louie	10		27		Alpha	
								$\infty$	4	1		
	1											
Results	table	(key = E	ID + PID)									
Results	table	(key = E Btime	ID + PID)									
) —			ID + PID)									
EID	PID	Btime	ID + PID)									
EID 1	PID 27	Btime 4.5	ID + PID)									
EID 1 5	PID 27 25	Btime 4.5 3	ID + PID)									
EID 1 5 11	PID 27 25 22	Btime 4.5 3 7	ID + PID)									