

**LAPORAN MINGGU KESEMBILAN TM 2  
BASIS DATA (PRAKTIKUM)**



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**PROGRAM STUDI S1 SISTEM INFORMASI  
FAKULTAS SAINS DAN TEKNOLOGI  
UNIVERSITAS AIRLANGGA  
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## **Dependency 2**

### **Jum'at, 7 Mei 2021**

#### **Petunjuk Praktikum**

1. Tentukan atribut *key* dan atribut *non-key* dari masing-masing tabel di bawah!
2. Tentukan atribut *non-key* mana yang bergantung pada atribut *key* tersebut!
3. Kemudian tentukan jenis ketergantungan tersebut (*full dependency*, *partial dependency*, atau *transitive dependency*)!
4. Tentukan hasil dekomposisi yang memenuhi *lossless join*!

#### **Tabel**

**Tabel 1**

ID	Name	Dept_Name	Salary	Building	Budget
22222	Einstein	Physics	95.000	Watson	70.000
12121	Wu	Finance	90.000	Painter	120.000
32343	El Said	History	60.000	Painter	50.000
45565	Katz	Computer Sci	75.000	Taylor	100.000
98345	Kim	Elec. Eng.	80.000	Taylor	85.000
76766	Crick	Biology	72.000	Watson	90.000
10101	Srinivasan	Computer Sci	65.000	Taylor	100.000
58583	Califieri	History	62.000	Painter	50.000
83821	Brandt	Computer Sci	92.000	Taylor	100.000
15151	Mozart	Music	40.000	Packard	80.000
33456	Gold	Physics	87.000	Watson	70.000
33457	Singh	Finance	80.000	Painter	120.000

Tabel 2

Customer Number	Customer Name	Invoice Number	Invoice Date	Line Number	Product Code	Common Name	Scientific Name	Category	Quantity	Price Charged	Subtotal
10089	John Pike	100529	15/12/2019	1	500436	Red Sword	Xiphophorus Helleri	Tropical	2	\$2.35	\$4.70
10089	John Pike	100529	15/12/2019	2	500829	Glowlight Tetra	Hemigrammus Erythrozonus	Tropical	10	\$1.20	\$12.00
10089	John Pike	100529	15/12/2019	3	500581	Neon Tetra	Parachelodon Innesi	Tropical	10	\$1.40	\$14.00
										Total	\$30.70
Null	Null	104580	19/12/2019	1	500436	Red Sword	Xiphophorus Helleri	Tropical	2	\$2.50	\$5.00
Null	Null	104580	19/12/2019	2	200106	Common Goldfish	Carassius Auratus	Coldwater	5	\$1.20	\$6.00
										Total	\$11.00
105068	Colin Fry	102389	05/08/2018	1	800982	Common Clownfish	Amphiprion Ocellaris	Marine	2	\$17.99	\$35.98
										Total	\$35.98

**Tabel 1**

1. Key : ID dan Dept\_Name  
Non-Key : Name, Salary, Building, Budget
2. A.  $ID \rightarrow Name, Salary, Dept\_Name$   
B.  $Dept\_Name \rightarrow Building, Budget$   
C.  $ID \rightarrow Dept\_Name \rightarrow Building, Budget$
3. A. Partial dependency  
B. Partial dependency  
C. Transitive dependency
- 4.

ID	Name	Dept_Name	Salary
22222	Einstein	Physics	95.000
12121	Wu	Finance	90.000
32343	El Said	History	60.000

Dept_Name	Budget	Building
Physics	70.000	Watson
Finance	120.000	Painter
History	50.000	Painter

**Tabel 2**

1. Key : Customer Number, Invoice Number, Product Code  
Non-Key : Customer Name, Invoice Date, Line Number, Common Name, Scientific Name, Category, Quantity, PriceCharged, Subtotal
2. A. Customer Number → Customer Name  
B. Invoice Number → Invoice Date, Customer Number  
C. Product Code → Common Name, Scientific Name, Category  
D. Invoice Number → Product Code → Quantity  
E. Customer Number, Invoice Number, Product Code → Subtotal  
F. Customer Number, Product Code → Price Charged
3. A. Partial dependency  
B. Partial dependency  
C. Partial dependency  
D. Transitive dependency  
E. Full dependency  
F. Partial dependency
- 4.

Customer Number	Customer Name
10089	John Pike
105068	Colin Fry

Customer Number	Invoice Number	Invoice Date
10089	100529	15/12/2019
Null	104580	19/12/2019
105068	102389	05/08/2018

<b>Product Code</b>	<b>Common Name</b>	<b>Scientific Name</b>	<b>Category</b>
500436	Red Sword	Xiphophorus Helleri	Tropical
500829	Glowlight Tetra	Hemigrammus Erythrozonus	Tropical
500581	Neon Tetra	Parachelrodon Innesi	Tropical
200106	Common Goldfish	Carassius Auratus	Coldwater
800982	Common Clownfish	Amphiprion Ocellaris	Marine

<b>Invoice Number</b>	<b>Product Code</b>	<b>Quantity</b>
100529	500436	2
100529	500829	10
100529	500581	10
104580	500436	2
104580	200106	5
102389	800982	2

<b>Customer Number</b>	<b>Invoice Number</b>	<b>Product Code</b>	<b>Subtotal</b>
10089	100529	500436	\$4.70
10089	100529	500829	\$12.00
10089	100529	500581	\$14.00
Null	104580	500436	\$5.00
Null	104580	200106	\$6.00
105068	102389	800982	\$35.98

<b>Customer Number</b>	<b>Product Code</b>	<b>Price Charged</b>
10089	500436	\$2.35
10089	500829	\$1.20
10089	500581	\$1.40
Null	500436	\$2.50
Null	200106	\$1.20
105068	800982	\$17.99