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Daffodil International University

CSE-311 (66_L) Class Test-2

Obtained Marks

Time : 25 min, Marks : 15 (13 + 2(Attendance))

Name :	ID :

Amazon is maintaining a database to keep track of their order. They recently hired a database expert and told them that their database expert asked for some suggestions to make their database more efficient in storing and accessing data from their database.The expert has suggested they redesign the structure of their database by following the principles of **Normalization**. **13**

Order_ID	Order_date	Customer_ID	Customer_name	Address	Product_ID	Product_Name	Quantity	Price
01	03-03-2026	C03	Henry	231 MainSt.	P01,P02	PS5 Slim, Dual Shock 5 controller	1,1	600$, 60$
02	01-01-2026	C05	Nazib	903 Oak Ave	P04	RTX 5080	3	3000$
03	05-03-2026	C09	Heisenberg	789 Mapel St.	P15,P20	PS5-Game (GOD of War), PS5-Game (Blackmyth Wokong)	1,1	40$, 50$

- **Normalize the following table up to Third Normal Form (3NF). Show the First Normal Form (1NF) and Second Normal Form (2NF) before presenting the Third Normal Form.**

1NF :

Order_ID	Order_Date	Customer_ID	Customer_Name	Address	Product_ID	Product_Name	Quantity	Price
01	03-03-2026	C03	Henry	231 Main St	P01	PS5 Slim	1	600
01	03-03-2026	C03	Henry	231 Main St	P02	DualShock 5 Controller	1	60
02	01-01-2026	C05	Nazib	903 Oak Ave	P04	RTX 5080	3	3000
03	05-03-2026	C09	Heisenberg	789 Maple St	P15	PS5 Game (God of War)	1	40
03	05-03-2026	C09	Heisenberg	789 Maple St	P20	PS5 Game (Black Myth Wukong)	1	50

2NF

Order

Order_ID(PK)	Order_Date	Customer_ID
01	03-03-2026	C03
02	01-01-2026	C05
03	05-03-2026	C09

Customer

Customer_ID	Customer_Name	Address
C03	Henry	231 Main St
C05	Nazib	903 Oak Ave
C09	Heisenberg	789 Maple St

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Product

Product_ID	Product_Name
P01	PS5 Slim
P02	DualShock 5 Controller
P04	RTX 5080
P15	PS5 Game (God of War)
P20	PS5 Game (Black Myth Wukong)

Order_Details

Order_ID	Product_ID	Quantity	Price
01	P01	1	600
01	P02	1	60
02	P04	3	3000
03	P15	1	40
03	P20	1	50

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3NF : It will be the same as 2nf. After 2NF there is no transitive dependency as well.

NB : *You guys might wonder why the price is not in the product table? That's because the price given here is not unit price. Its the gross price which is associated with Quantity in order details and not with product table.*