

## Lab Assignment – VLOOKUP Function

### Worksheet 1: Products

ProductID	Product	Price
101	Product A	120
102	Product B	150
103	Product C	200
104	Product D	90
105	Product E	220
106	Product F	130

### Worksheet 2: Orders

OrderID	ProductID	Quantity
1	101	2
2	103	1
3	105	4
4	106	3
5	102	5
6	104	6

**Q.1. Use VLOOKUP to find the product names for each ProductID in the Orders worksheet.**

The screenshot shows the Microsoft Excel interface with the 'Orders' worksheet selected. A text box in cell A6 contains the instruction: 'Use VLOOKUP to find product names for each ProductID in the Orders Worksheet'. The worksheet data is as follows:

Order_ID	Product_ID	Quantity	Product_name
1	101	2	Product A
2	103	1	Product C
3	105	4	Product E
4	106	3	Product F
5	102	5	Product B
6	104	6	Product D

A formula box is open, showing the following formulas used in the Product\_name column:

- =VLOOKUP(B2,Product\_Table!A2:B7,2,FALSE)
- =VLOOKUP(B3,Product\_Table!A2:B7,2,FALSE)
- =VLOOKUP(B4,Product\_Table!A2:B7,2,FALSE)
- =VLOOKUP(B5,Product\_Table!A2:B7,2,FALSE)
- =VLOOKUP(B6,Product\_Table!A2:B7,2,FALSE)
- =VLOOKUP(B7,Product\_Table!A2:B7,2,FALSE)

The bottom of the screen shows the 'Product\_Table' and 'Orders\_Table' tabs, and an 'Activate Windows' watermark.

**Q.2. Use VLOOKUP to find the price for each ProductID in the Orders worksheet, then calculate the TotalPrice by multiplying the Quantity by the Product Price.**

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Order_ID	Product_ID	Quantity	Product_name	Price	Total_Price
1	101	2	Product A	120	240
2	103	1	Product C	200	200
3	105	4	Product E	220	880
4	106	3	Product F	130	390
5	102	5	Product B	150	750
6	104	6	Product D	90	540

Formula for Total\_Price:

- =VLOOKUP(B6,Product\_table!A1:C7,3,0)\*Order\_table!C6
- =VLOOKUP(B7,Product\_table!A1:C7,3,0)\*Order\_table!C7
- =VLOOKUP(B8,Product\_table!A1:C7,3,0)\*Order\_table!C8
- =VLOOKUP(B9,Product\_table!A1:C7,3,0)\*Order\_table!C9
- =VLOOKUP(B10,Product\_table!A1:C7,3,0)\*Order\_table!C10
- =VLOOKUP(B11,Product\_table!A1:C7,3,0)\*Order\_table!C11

Formulas:

- =VLOOKUP(B2,Product\_table!A1:C7,3,FALSE)
- =VLOOKUP(B3,Product\_table!A1:C7,3,FALSE)
- =VLOOKUP(B4,Product\_table!A1:C7,3,FALSE)
- =VLOOKUP(B5,Product\_table!A1:C7,3,FALSE)
- =VLOOKUP(B6,Product\_table!A1:C7,3,FALSE)
- =VLOOKUP(B7,Product\_table!A1:C7,3,FALSE)

**Q.3. Use VLOOKUP to check if there are any ProductIDs in the Orders worksheet that do not exist in the Products worksheet.**

Q.3. Use VLOOKUP to check if there are any ProductID's in the Orders Worksheet, that do not exist in the Products worksheet.

Order_ID	Product_ID	Quantity	Product_name	Price	Total_Price	Check_productID
1	101	2	Product A	120	240	Exist
2	103	1	Product C	200	200	Exist
3	105	4	Product E	220	880	Exist
4	106	3	Product F	130	390	Exist
5	102	5	Product B	150	750	Exist
6	104	6	Product D	90	540	Exist

Formulas:

- =IF(ISNA(VLOOKUP(B6,Product\_table!A1:C7,1,FALSE)),"Not Exist","Exist")
- =IF(ISNA(VLOOKUP(B7,Product\_table!A1:C7,1,FALSE)),"Not Exist","Exist")
- =IF(ISNA(VLOOKUP(B8,Product\_table!A1:C7,1,FALSE)),"Not Exist","Exist")
- =IF(ISNA(VLOOKUP(B9,Product\_table!A1:C7,1,FALSE)),"Not Exist","Exist")
- =IF(ISNA(VLOOKUP(B10,Product\_table!A1:C7,1,FALSE)),"Not Exist","Exist")
- =IF(ISNA(VLOOKUP(B11,Product\_table!A1:C7,1,FALSE)),"Not Exist","Exist")

**Q.4. Assume a discount of 10% is given on all products. Use VLOOKUP to find the original price and then calculate the discounted price.**

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Order_ID	Product_ID	Quantity	Product_name	Price	Total_Price	Check_productID	Discount_Price
1	101	2	Product A	120	240	Exist	108
2	103	1	Product C	200	200	Exist	180
3	105	4	Product E	220	880	Exist	198
4	106	3	Product F	130	390	Exist	117
5	102	5	Product B	150	750	Exist	135
6	104	6	Product D	90	540	Exist	81

Formulas:

- =VLOOKUP(B5,Product\_table!A1:C7,3,FALSE) \* 0.9
- =VLOOKUP(B6,Product\_table!A2:C8,3,FALSE) \* 0.9
- =VLOOKUP(B7,Product\_table!A3:C9,3,FALSE) \* 0.9
- =VLOOKUP(B8,Product\_table!A4:C10,3,FALSE)\* 0.9
- =VLOOKUP(B9,Product\_table!A1:C7,3,FALSE)\*0.9
- =VLOOKUP(B10,Product\_table!A2:C8,3,FALSE)\*0.9

**Q.5. Use VLOOKUP to find the price for each ProductID and then calculate the order value. Find the maximum order value from the list.**

Q.5. Use VLOOKUP to find the price for each ProductID and then calculate the order value. Find the maximum order value from the list.

Order_ID	Product_ID	Quantity	Product_name	Price	Total_Price	Check_productID	Discount_Price
1	101	2	Product A	120	240	Exist	108
2	103	1	Product C	200	200	Exist	180
3	105	4	Product E	220	880	Exist	198
4	106	3	Product F	130	390	Exist	117
5	102	5	Product B	150	750	Exist	135
6	104	6	Product D	90	540	Exist	81
			Order Value	910			
			Max order value	220			

Formula to find order Value:  
=SUM(F5:F10)

Formula to find Maximum Order Value:  
=MAX(F5:F10)

## Q.6. Use VLOOKUP to find out which products from the Products worksheet have not been ordered.

The screenshot shows an Excel spreadsheet with the following data:

Order_ID	Product_ID	Quantity	Product_name	Price	Total_Price	Check_productID	Discount_Price	Ordered_status
1	101	2	Product A	120	240	Exist	108	Orderd
2	103	1	Product C	200	200	Exist	180	Orderd
3	105	4	Product E	220	880	Exist	198	Orderd
4	106	3	Product F	130	390	Exist	117	Orderd
5	102	5	Product B	150	750	Exist	135	Orderd
6	104	6	Product D	90	540	Exist	81	Orderd
Order Value				910				
Max order value				220				

The formula used in cell B6 is: `=IF(ISNA(VLOOKUP(B6,Order_table!B6,1,FALSE)),"Not Orderd","Orderd")`

## Q.7. Use VLOOKUP to find the Product name and summarize the total quantity sold for each product.

The screenshot shows an Excel spreadsheet with the following data:

ProductID	Product	Total Quantity sold
101	Product A	2
102	Product B	5
103	Product C	1
104	Product D	6
105	Product E	4
106	Product F	3

The formula used in cell B6 is: `=VLOOKUP(A6,Product_table!A1:C7,2,0)`

The formula used in cell E5 is: `=SUMIF(E5:E11,B6,C5:C11)`

The formula used in cell E6 is: `=SUMIF(E5:E11,B7,C5:C11)`

The formula used in cell E7 is: `=SUMIF(E5:E11,B8,C5:C11)`

The formula used in cell E8 is: `=SUMIF(E5:E11,B9,C5:C11)`

The formula used in cell E9 is: `=SUMIF(E5:E11,B10,C5:C11)`

The formula used in cell E10 is: `=SUMIF(E5:E11,B11,C5:C11)`