



Monmouth
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BUSI 201: Business Data Analysis

Quiz #1: Excel Basics

INSTRUCTIONS:

- BUSI201-Q01-Workbook.xlsx is the companion workbook for this quiz.
- The workbook consists of four worksheets: Expenses, Employee, Sales, and Inventory.
- The quiz booklet contains 4 problems, each corresponding to one of the worksheets.
- Unless explicitly stated, manually typing in the answers without using functions will result in all points being deducted from the specific question.
- Once you are finished, save/rename the workbook to BUSI201-Q01-YOUR_LOGIN_ID.xlsx, and submit your results via email to BPARK@monmouthcollege.edu.

Problem 1. Expenses: 30 Points

The first problem describes the tasks assigned for the first worksheet Expenses. The worksheet contains a synthetic expense sheet for a household. It is currently sorted by date, and the information given includes the vendor, the transaction category, the amount spent, and the payment method used.

The table highlighted by the blue box contains information about the cashback rewards each payment method provides. For instance, if Card A is used to pay for any expense categorized as Groceries, the consumer will be granted 6% of the transaction value as a cashback reward. But if CARD A is used for any other transaction, the rate of return on spend will be 1%.

The screenshot shows an Excel spreadsheet with the following data:

August 2023		Rate of Return			
Expenditure	Value	Cash	Card A	Card B	
Rewards		0.0%	6.0%	3.0%	
Total RoR		0.0%	1.0%	2.0%	

Date	Vendor	Category	Amount	Payment	RoR	Rewards
8/1/2023	Supermart	Groceries	\$ 75.00	Card A		
8/2/2023	The Bistro	Dining	\$ 45.50	Card B		
8/3/2023	Airlines Inc.	Travel	\$ 150.00	Card A		
8/5/2023	Health Plus	Drug Stores	\$ 30.25	Cash		
8/7/2023	PetroCo	Gasoline	\$ 60.00	Card B		
8/10/2023	Movieplex	Entertainment	\$ 20.00	Cash		
8/12/2023	Casa Italia	Dining	\$ 85.75	Card A		
8/14/2023	MegaMart	Groceries	\$ 200.00	Card B		
8/15/2023	Hotel Stay Inc.	Travel	\$ 75.50	Card A		
8/18/2023	FuelUp	Gasoline	\$ 15.25	Cash		
8/20/2023	The Grill	Dining	\$ 50.00	Card A		
8/22/2023	CinePlex	Entertainment	\$ 40.00	Card B		
8/24/2023	QuickMeds	Drug Stores	\$ 40.50	Cash		
8/27/2023	FreshMart	Groceries	\$ 55.25	Card A		
8/29/2023	FastFuel	Gasoline	\$ 70.00	Card B		
8/30/2023	Cafe Express	Dining	\$ 25.00	Cash		
8/2/2023	AmuseWorld	Entertainment	\$ 65.75	Card A		
8/4/2023	SaveMore	Groceries	\$ 35.50	Card B		
8/6/2023	Train Tickets	Travel	\$ 90.00	Cash		
8/9/2023	FuelEaze	Gasoline	\$ 27.75	Card A		
8/11/2023	Sushi Palace	Dining	\$ 40.25	Card B		
8/13/2023	GameZone	Entertainment	\$ 55.00	Card A		
8/16/2023	MediCare	Drug Stores	\$ 28.50	Cash		
8/19/2023	FreshFare	Groceries	\$ 80.00	Card B		
8/21/2023	QuickFill	Gasoline	\$ 70.75	Card A		
8/23/2023	Pizzeria Bella	Dining	\$ 45.00	Cash		
8/26/2023	Uber	Travel	\$ 22.25	Card B		
8/28/2023	MiniGolf	Entertainment	\$ 15.00	Card A		
8/31/2023	ShopRight	Groceries	\$ 65.50	Cash		
8/3/2023	FastFill	Gasoline	\$ 75.25	Card A		
8/5/2023	The Café	Dining	\$ 50.50	Card B		
8/8/2023	Vacation Agency	Travel	\$ 130.00	Cash		

Task #1: 15 Points

Your first task is to find the entries for the RoR column highlighted by the red box. It should contain the rate of return (%) on spend as dictated by the table in the blue box.

Task #2: 5 Points

The next task is to find the amount of rewards that the consumer accumulates from each transaction in the Rewards column marked by the orange box.

Task #3: 10 Points

Finally, you must fill out the table highlighted by the purple box with the household's total expenditure, total cashback rewards, and the overall rate of return, corresponding to column B.

- Make use of the IF function for the RoR.

Problem 2. Employee: 10 Points

The second worksheet, corresponding to the second problem, contains information of a list of employees in a fictitious firm. The entries include the employees' full names, their department, corporate email address which takes the form of LOGIN_ID@firm.com, their office location and number (West or East Tower), and office phone number.

Task #1: 10 Points

The single task in this problem is to fill in the entries highlighted by the red box with the employees' first name, last name, login ID, office number, and their phone extension (last 4 digits of office phone number).

Employee Name	Department	Corporate Email	Office	Office Phone	First Name	Last Name	Login ID	Office #	Extension
John Smith	IT	john.smith@firm.com	East 108	(312) 729-7890					
Sarah Johnson	Sales	sarah.j@firm.com	West 104	(312) 729-7891					
Michael Davis	HR	michael.davis@firm.com	East 104	(312) 729-7892					
Emily Wilson	Operations	emily.wilson@firm.com	East 105	(312) 729-7893					
David Lee	Finance	david.lee@firm.com	East 105	(312) 729-7894					
Laura Garcia	Marketing	laura.garcia@firm.com	East 106	(312) 729-7895					
Robert Patel	Marketing	robert.p@firm.com	East 103	(312) 729-7896					
Jennifer Brown	Finance	jennifer.b@firm.com	West 109	(312) 729-7897					
Thomas Clark	Sales	thomas.c@firm.com	West 100	(312) 729-7898					
Melissa Turner	Sales	melissa.t@firm.com	East 101	(312) 729-7899					
Daniel Miller	Operations	daniel.m@firm.com	West 104	(312) 729-7900					
Sophia Wilson	Finance	sophia.w@firm.com	East 101	(312) 729-7901					
Kevin Adams	IT	kevin.a@firm.com	West 100	(312) 729-7902					
Rachel White	IT	rachel.w@firm.com	West 107	(312) 729-7903					
Richard Harris	Operations	richard.h@firm.com	West 109	(312) 729-7904					
Amanda Hall	Marketing	amanda.h@firm.com	West 209	(312) 729-7905					
Brian Turner	Operations	brian.t@firm.com	West 206	(312) 729-7906					
Lisa Jackson	Sales	lisa.j@firm.com	West 201	(312) 729-7907					
Jessica Martinez	Marketing	jessica.m@firm.com	West 203	(312) 729-7908					
Samuel King	Finance	samuel.k@firm.com	East 207	(312) 729-7909					
Maria Rodriguez	HR	maria.r@firm.com	East 213	(312) 729-7910					
Eric Scott	IT	eric.s@firm.com	East 218	(312) 729-7911					

- Make use of the flash fill function we covered in class.
- No points deducted for manually typing in the correct answers for Problem 2.

Problem 3. Expenses: 40 Points

The third worksheet mimics sales data for a department store. The main table gives us information about the date of the sale, which employee made the sale, the product name and quantity sold, the price of each unit, and the value of the transaction.

Date	Employee	Product	Quantity	Unit Price	Total Sales
1/1/2023	Employee D	Shirt	50	\$ 20.00	\$ 1,000.00
1/2/2023	Employee F	Shoes	25	\$ 50.00	\$ 1,250.00
1/3/2023	Employee A	Jeans	30	\$ 40.00	\$ 1,200.00
1/4/2023	Employee B	Sweater	20	\$ 30.00	\$ 600.00
1/5/2023	Employee C	Hat	15	\$ 10.00	\$ 150.00
1/6/2023	Employee D	Dress	40	\$ 45.00	\$ 1,800.00
1/7/2023	Employee B	Jacket	10	\$ 60.00	\$ 600.00
1/8/2023	Employee F	Socks	75	\$ 5.00	\$ 375.00
1/9/2023	Employee A	Scarf	35	\$ 15.00	\$ 525.00
1/10/2023	Employee C	Sunglasses	50	\$ 25.00	\$ 1,250.00
1/11/2023	Employee F	T-shirt	60	\$ 12.00	\$ 720.00
1/12/2023	Employee A	Skirt	20	\$ 35.00	\$ 700.00
1/13/2023	Employee D	Backpack	15	\$ 40.00	\$ 600.00
1/14/2023	Employee B	Umbrella	40	\$ 8.00	\$ 320.00
1/15/2023	Employee E	Gloves	25	\$ 7.00	\$ 175.00
1/16/2023	Employee C	Boots	30	\$ 55.00	\$ 1,650.00
1/17/2023	Employee F	Jacket	10	\$ 60.00	\$ 600.00
1/18/2023	Employee D	Sweater	20	\$ 30.00	\$ 600.00
1/19/2023	Employee C	Shoes	25	\$ 50.00	\$ 1,250.00
1/20/2023	Employee A	Hat	15	\$ 10.00	\$ 150.00
1/21/2023	Employee B	Dress	40	\$ 45.00	\$ 1,800.00
1/22/2023	Employee F	Shirt	50	\$ 20.00	\$ 1,000.00
1/23/2023	Employee E	Jeans	30	\$ 40.00	\$ 1,200.00
1/24/2023	Employee A	T-shirt	60	\$ 12.00	\$ 720.00
1/25/2023	Employee D	Sunglasses	50	\$ 25.00	\$ 1,250.00
1/26/2023	Employee C	Skirt	20	\$ 35.00	\$ 700.00
1/27/2023	Employee B	Backpack	15	\$ 40.00	\$ 600.00
1/28/2023	Employee F	Gloves	25	\$ 7.00	\$ 175.00
1/29/2023	Employee E	Socks	75	\$ 5.00	\$ 375.00
1/30/2023	Employee A	Umbrella	40	\$ 8.00	\$ 320.00
2/1/2023	Employee C	Boots	30	\$ 55.00	\$ 1,650.00
2/2/2023	Employee F	Jacket	10	\$ 60.00	\$ 600.00
2/3/2023	Employee B	Dress	40	\$ 45.00	\$ 1,800.00
2/4/2023	Employee A	Sweater	20	\$ 30.00	\$ 600.00
2/5/2023	Employee D	Shoes	25	\$ 50.00	\$ 1,250.00
2/6/2023	Employee E	Hat	15	\$ 10.00	\$ 150.00

Product	# of Sales	Total Quantity	Sales (\$)
Backpack			
Boots			
Dress			
Gloves			
Hat			
Jacket			
Jeans			
Scarf			
Shirt			
Shoes			
Skirt			
Socks			
Sunglasses			
Sweater			
T-shirt			
Umbrella			

Employee	# of Sales	Total Quantity	Total Sales
Employee A			
Employee B			
Employee C			
Employee D			
Employee E			
Employee F			

Top Rank	Total Sales	Bottom Rank	Total Sales
1		1	
2		2	
3		3	

Task #1: 15 points

Your first task is to find the correct values for the table in the **red box**. It should contain the sales figures by product, and must be filled with the total number of sales (how many times it was sold, NOT the total quantity), the total quantity of units sold, and the total dollar value of the sales.

Task #2: 10 points

The next task is to complete the **blue box**, analogous to the first task but calculating the numbers by employee instead of by products. Calculate and report the total number of sales, the total quantity of goods sold, and total dollar value of their sales.

Task #3: 15 points

Finally, you must fill out the table highlighted by the **orange box** by finding the top and bottom three largest single transaction made. Note that we are not trying to find the employee who made the most sales, or the product with the highest/lowest transaction value, but the highest and lowest transaction value itself.

Quiz #1

BUSI 201 Business Data Analysis

Problem 4. Inventory: 20 Points

The final problem of this quiz will consist of two tasks on the worksheet **Inventory**. This worksheet contains information on inventory from a supermarket. Each item is given a unique item code, and the quantity of items in inventory, and the price of each unit.

Item Code	Item Name	Category	Inventory	Price	Total Value
1001	Kellogg's Corn Flakes	Breakfast Cereals	500	\$ 1.99	
1002	Coca-Cola Classic	Beverages	800	\$ 1.99	
1003	General Mills Cheerios	Breakfast Cereals	400	\$ 4.49	
1004	Heinz Ketchup	Condiments	300	\$ 2.49	
1005	Nestle Bottled Water	Beverages	1000	\$ 0.99	
1006	Campbell's Tomato Soup	Canned Foods	600	\$ 1.79	
1007	Colgate Toothpaste	Personal Care	750	\$ 2.29	
1008	Johnson & Johnson Baby Shampoo	Baby Care	400	\$ 3.99	
1009	Quaker Oats	Breakfast Cereals	450	\$ 3.29	
1010	Paints	Personal Care	600	\$ 4.99	
1011	Lipton Green Tea Bags	Beverages	550	\$ 2.99	
1012	Dove Bar Soap	Personal Care	900	\$ 1.49	
1013	Lay's Potato Chips	Snacks	700	\$ 1.49	
1014	Gatorade Sports Drink	Beverages	400	\$ 1.79	
1015	Johnsonville Bratwurst Sausages	Meat & Poultry	350	\$ 4.99	
1016	Pampers Diapers	Baby Care	800	\$ 8.99	
1017	Tide Laundry Detergent	Household	400	\$ 5.99	
1018	Breyers Ice Cream	Frozen Foods	300	\$ 4.49	
1019	Tropicana Orange Juice	Beverages	450	\$ 3.49	
1020	Nutella Hazelnut Spread	Breakfast Foods	250	\$ 6.99	
1021	Charmin Toilet Paper	Household	900	\$ 7.99	
1022	Kellogg's Rice Krispies	Breakfast Cereals	350	\$ 3.99	
1023	Duracell AA Batteries	Electronics	600	\$ 0.99	
1024	Johnson & Johnson Baby Lotion	Baby Care	350	\$ 3.49	
1025	Starbucks Coffee	Beverages	400	\$ 6.49	
1026	Kraft Macaroni & Cheese	Pasta & Grains	700	\$ 1.29	
1027	Clorox Disinfecting Wipes	Household	450	\$ 4.99	
1028	Huggies Baby Wipes	Baby Care	600	\$ 2.99	
1029	Savlon Wet Mop Starter Kit	Household	300	\$ 9.99	
1030	Folgers Ground Coffee	Beverages	500	\$ 4.99	
1031	Hershey's Chocolate Bars	Candy & Sweets	800	\$ 1.19	
1032	Arm & Hammer Laundry Detergent	Household	350	\$ 4.29	
1033	Barilla Spaghetti	Pasta & Grains	600	\$ 1.69	
1034	Johnson & Johnson Baby Powder	Baby Care	400	\$ 2.79	
1035	Nestle Frozen Pizza	Frozen Foods	300	\$ 3.99	
1036	Bounty Paper Towels	Household	750	\$ 3.49	
1037	Dove Conditioner	Personal Care	500	\$ 3.29	
1038	Purina Dog Food	Pets	350	\$ 4.49	
1039	Gain Laundry Detergent	Household	400	\$ 6.99	
1040	Cheerios Honey Nut Cheerios	Breakfast Cereals	450	\$ 4.49	
1041	Pepsi	Beverages	800	\$ 1.99	
1042	Oreo	Snacks	600	\$ 2.49	
1043	Febreze Air Freshener	Household	450	\$ 3.99	
1044	Welch's Grape Juice	Beverages	350	\$ 2.99	

Task #1: 5 Points

Your first task is to find the correct values for the table in the **red box**, which should be the value of the inventory in stock for each item.

Task #2: 15 Points

For the final task of this quiz, fill out the table highlighted in the **blue box**. The empty cells should return the item name, and the unit price corresponding to the item code in column J.

- Use the VLOOKUP function for task #2.