



- Name: \_\_\_\_\_
  - Date: \_\_\_\_\_
  - Section: \_\_\_\_\_
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## **BUSI 201: Business Data Analysis**

### **Practice Final Exam**

#### **NOTE:**

- This practice final will consist of relatively simple tasks compared to the actual final exam.
- The final exam will be slightly longer than this practice final exam (6 ~ 7 problems).
- You should use this practice final exam as a preview of the *style* and *format* of the final exam.

#### **INSTRUCTIONS:**

- BUSI201-S2024-PracticeFinal-Workbook.xlsx is the companion workbook.
- The workbook consists of 5 worksheets: P01 to P05
- The quiz booklet contains 5 problems, each corresponding to one worksheet.
- This practice final exam is not a graded item.

**Problem #1. Functions**

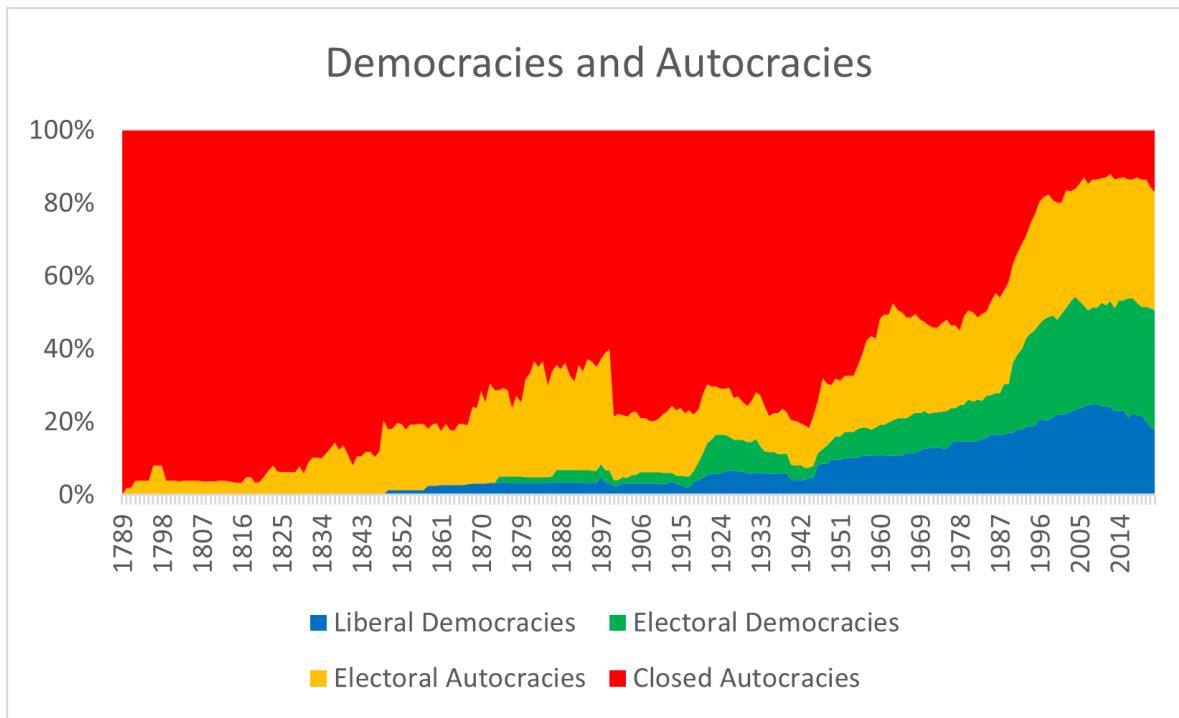
Navigate to worksheet P01. Complete the tasks described below using functions. Any completed material that is deemed to be manually calculated will not receive any credit.

A	B	C	D	E	F	G	H	I	J	K	L	M	
1	Monthly Sales Record by Employee					Annual Statistics by Employee							
2	Record #	Employee	Month	Sales	Days Worked	Sales per Day		Employee	Total Sales	Total Days Worked	Sales / Day	Rank (Sales / Day)	
3	20230101	Employee 1	Jan/2023	\$45,590.25	27	A		Employee 1					
4	20230201	Employee 1	Feb/2023	\$48,750.83	19			Employee 2					
5	20230301	Employee 1	Mar/2023	\$40,757.82	16			Employee 3					
6	20230401	Employee 1	Apr/2023	\$39,945.88	16			Employee 4					
7	20230501	Employee 1	May/2023	\$45,953.11	20			Employee 5					
8	20230601	Employee 1	Jun/2023	\$26,734.27	21			Employee 6					
9	20230701	Employee 1	Jul/2023	\$25,792.24	25								
10													

- Task #1:
  - Fill the cells in the **Red Box: A** with the average sales per day that the employee made for each month. For instance, for the first cell G4 should be populated with  $45,590.25/27$ .
  
- Task #2:
  - Fill the cells in the **Blue Box: B** with the total sales that the employee made for the year of 2023.
  
- Task #3:
  - Fill the cells in the **Orange Box: C** with the total number of days that the employee worked for the year of 2023.
  
- Task #4:
  - Fill the cells in the **Green Box: D** with the average sales that each employee made per day in the year of 2023.
  
- Task #5:
  - Fill the cells in the **Purple Box: E** with the ranking of the employees based on total sales figures over the year of 2023.

**Problem #2. Charts**

Navigate to worksheet P02. The table provides you with data on the composition of political systems across the world from 1789 to 2022. Use this table to generate the following chart.



The following is a list of items that you may use as a guideline to completing this task. Note that this may not be an exhaustive list of items.

- The chart type.
- The values of the axes.
- The title of the chart.
- The order of the series.

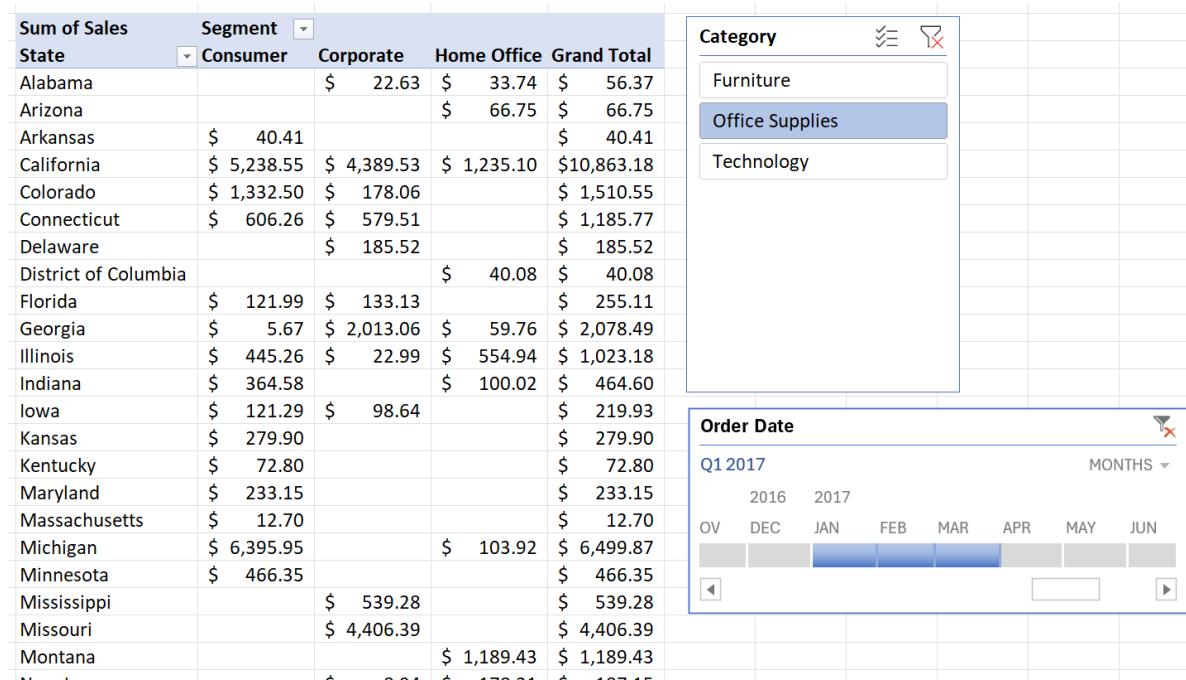
### Problem #3. Conditional Formatting

Navigate to worksheet P03. This worksheet contains the top 50 rated moves on IMDB as of Apr. 2024. Apply conditional formatting to the existing table to color the entire entry of a movie to have a red background when the MPA rating is R. The figure below depicts the desired end result. Points will not be awarded if the formatting was done manually.

A	B	C	D	E	F	G	H	I
	#	Title	Year	Duration	Classification	Rating	Number of Ratings	
1	1	The Shawshank Redemption	1994	142	R	9.3	2,463,624	
2	2	The Godfather	1972	175	R	9.2	1,701,325	
3	3	The Dark Knight	2008	152	PG-13	9.0	2,422,701	
4	4	The Godfather: Part II	1974	202	R	9.0	1,189,925	
5	5	Pulp Fiction	1994	154	R	8.9	1,872,172	
6	6	Schindler's List	1993	195	R	8.9	1,257,585	
7	7	12 Angry Men	1957	96	Approved	9.0	726,291	
8	8	The Lord of the Rings: The Return of the King	2003	201	PG-13	8.9	1,708,205	
9	9	Fight Club	1999	139	R	8.8	1,917,515	
10	10	Forrest Gump	1994	142	PG-13	8.8	1,915,711	
11	11	Inception	2010	148	PG-13	8.8	2,275,364	
12	12	The Lord of the Rings: The Fellowship of the Ring	2001	178	PG-13	8.8	1,750,233	
13	13	The Matrix	1999	136	R	8.7	1,704,394	
14	14	Goodfellas	1990	146	R	8.7	1,060,892	
15	15	The Lord of the Rings: The Two Towers	2002	179	PG-13	8.7	1,571,405	
16	16	Star Wars: Episode V - The Empire Strikes Back	1980	124	PG	8.7	1,244,574	
17	17	One Flew Over the Cuckoo's Nest	1975	133	R	8.7	956,029	
18	18	Se7en	1995	127	R	8.6	1,541,742	
19	19	The Silence of the Lambs	1991	118	R	8.6	1,340,916	
20	20	Star Wars: Episode IV - A New Hope	1977	121	PG-13	8.6	1,241,346	

### Problem #4. PivotTables

Navigate to worksheet P04. This worksheet contains sales / order data from some hypothetical firm. Using this data, construct a PivotTable **in a new worksheet** that matches the one displayed in the figure below:



The following is a list of items that you may use as a guideline to completing this task. Note that this may not be an exhaustive list of items.

- Report layout of the PivotTable.
- The appropriate slicer.
- The appropriate timeline.

**Problem #5. What-if Analysis**

Navigate to worksheet P05. This worksheet contains a simplified calculator to calculate retirement plans. Using tools available to you under What-if Analysis, calculate the monthly savings required for a person to retire with a retirement account valued at \$3,000,000 in 30 years when their returns to investment averages 10.15% annually.

	A	B	C	D
1				
2		Item	Value	
3		Monthly Savings	\$ 500.00	
4		Return on Investments	10.15%	
5		Years to Retirement	30	
6		Retirement Account	\$1,167,056.12	
7				

That is, find the value of C3 that is required for the value in C6 to be \$3,000,000 given the current Years to Retirement and Return on Investments.