Monmouth COLLEGE

- Name: _____
- Date: _____
- Section: _____

BUSI 201: Business Data Analysis

Practice Final Exam

NOTE:

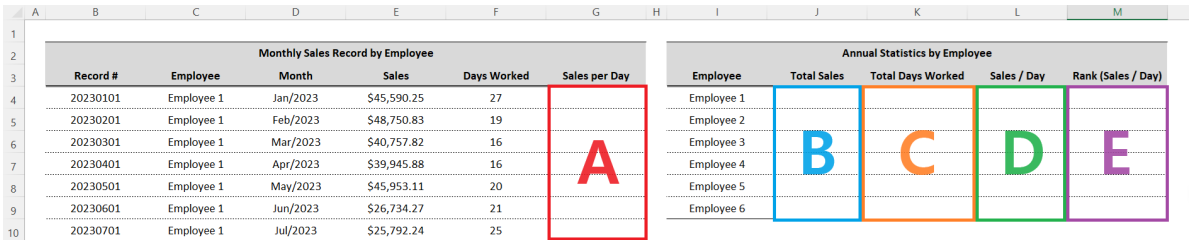
- This practice final will consist of relatively simple tasks compared to the actual final exam.
- The final exam will also be longer than this practice final exam, since the final exam will be drafted for a 90 minute exam period.
- You should use this practice final exam as a preview of the *style* and *format* of the final exam.

INSTRUCTIONS:

- `BUSI201-PracticeFinal-Workbook.xlsx` is the companion workbook for this quiz.
- The workbook consists of 4 worksheets: `P01` to `P04`
- The quiz booklet contains 4 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.



Monthly Sales Record by Employee

Record #	Employee	Month	Sales	Days Worked	Sales per Day
20230101	Employee 1	Jan/2023	$45,590.25	27	
20230201	Employee 1	Feb/2023	$48,750.83	19	
20230301	Employee 1	Mar/2023	$40,757.82	16	
20230401	Employee 1	Apr/2023	$39,945.88	16	
20230501	Employee 1	May/2023	$45,953.11	20	
20230601	Employee 1	Jun/2023	$26,734.27	21	
20230701	Employee 1	Jul/2023	$25,792.24	25	

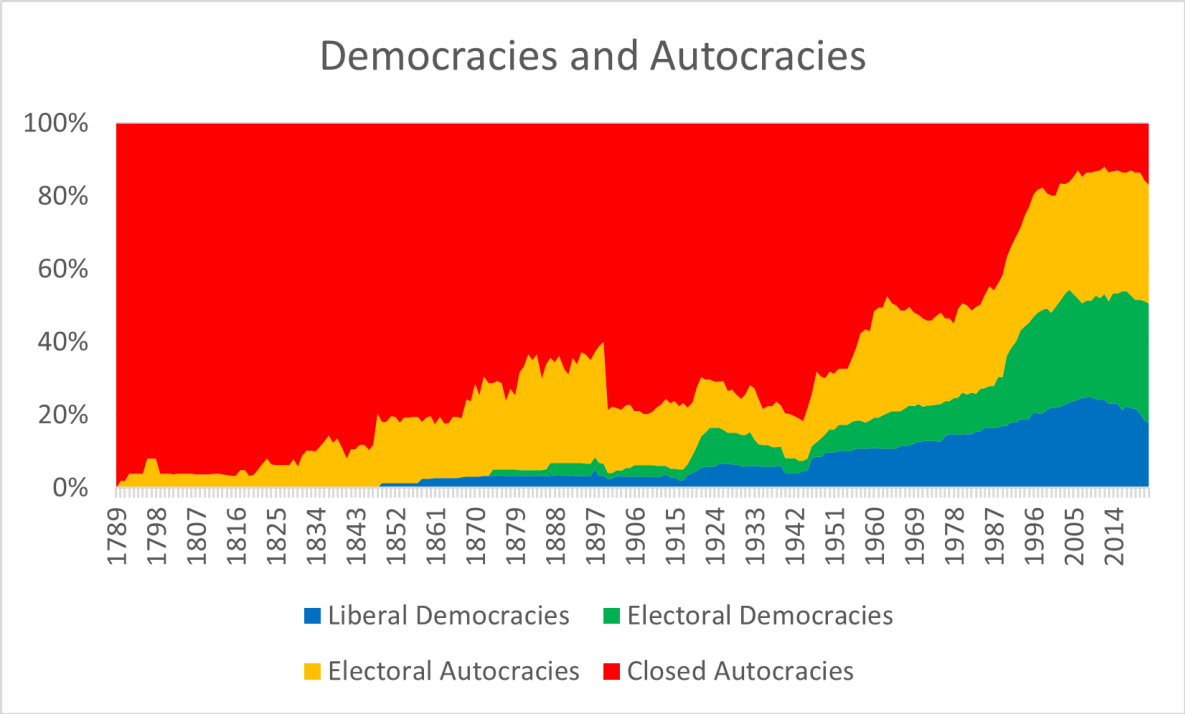
Annual Statistics by Employee

Employee	Total Sales	Total Days Worked	Sales / Day	Rank (Sales / Day)
Employee 1				
Employee 2				
Employee 3				
Employee 4				
Employee 5				
Employee 6				

- 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 total number of days that the employee worked for 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.

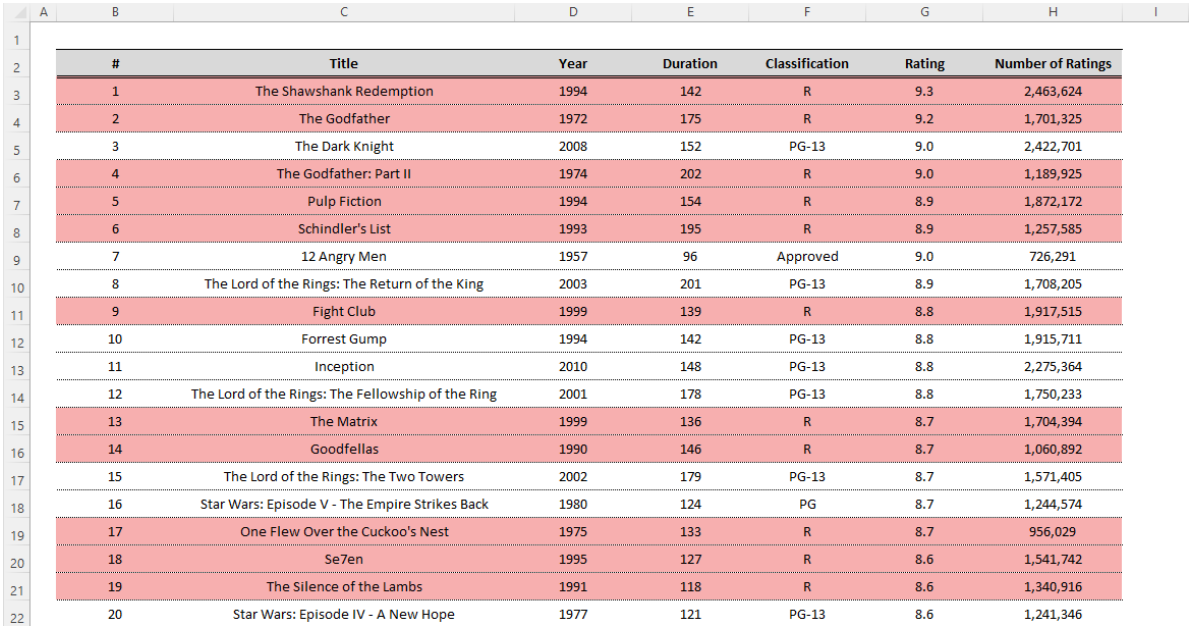


The following is a list of items that you may use as a guideline to completing this task. Note that this may not be an exhaustive list of items.

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

Problem #3. Conditional Formatting

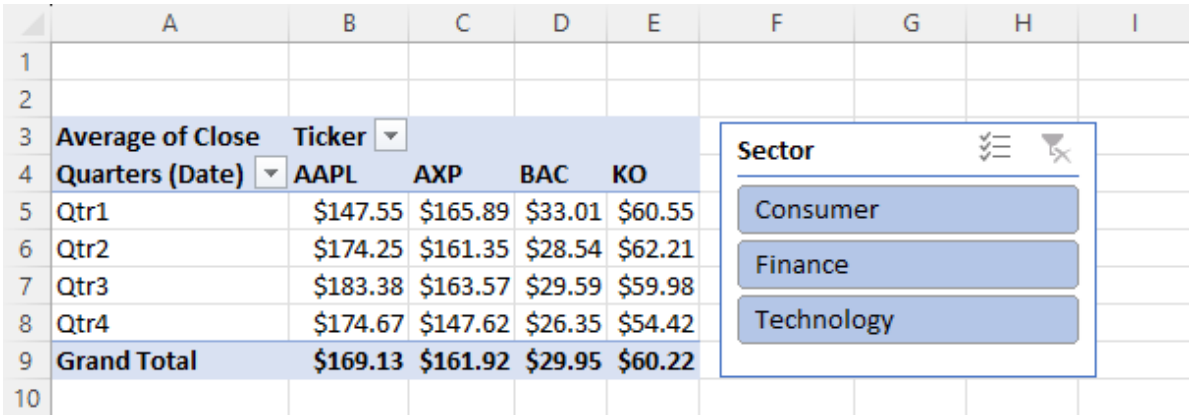
Navigate to worksheet P03. This worksheet contains the top 50 rated moves on IMDB as of Nov. 2023. Apply conditional formatting to the existing table to color the entire entry of a movie to have a red background when the MPA rating is R. The figure below depicts the desired end result. Points will not be awarded if the formatting was done manually.



#	Title	Year	Duration	Classification	Rating	Number of Ratings
1	The Shawshank Redemption	1994	142	R	9.3	2,463,624
2	The Godfather	1972	175	R	9.2	1,701,325
3	The Dark Knight	2008	152	PG-13	9.0	2,422,701
4	The Godfather: Part II	1974	202	R	9.0	1,189,925
5	Pulp Fiction	1994	154	R	8.9	1,872,172
6	Schindler's List	1993	195	R	8.9	1,257,585
7	12 Angry Men	1957	96	Approved	9.0	726,291
8	The Lord of the Rings: The Return of the King	2003	201	PG-13	8.9	1,708,205
9	Fight Club	1999	139	R	8.8	1,917,515
10	Forrest Gump	1994	142	PG-13	8.8	1,915,711
11	Inception	2010	148	PG-13	8.8	2,275,364
12	The Lord of the Rings: The Fellowship of the Ring	2001	178	PG-13	8.8	1,750,233
13	The Matrix	1999	136	R	8.7	1,704,394
14	Goodfellas	1990	146	R	8.7	1,060,892
15	The Lord of the Rings: The Two Towers	2002	179	PG-13	8.7	1,571,405
16	Star Wars: Episode V - The Empire Strikes Back	1980	124	PG	8.7	1,244,574
17	One Flew Over the Cuckoo's Nest	1975	133	R	8.7	956,029
18	Se7en	1995	127	R	8.6	1,541,742
19	The Silence of the Lambs	1991	118	R	8.6	1,340,916
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 the top 4 stocks that make up the investment portfolio for Berkshire Hathaway; `AAPL`, `BAC`, `KO`, and `AXP`. Using this data, construct a PivotTable that matches the one displayed in the figure below:



Average of Close	Ticker			
Quarters (Date)	AAPL	AXP	BAC	KO
Qtr1	$147.55	$165.89	$33.01	$60.55
Qtr2	$174.25	$161.35	$28.54	$62.21
Qtr3	$183.38	$163.57	$29.59	$59.98
Qtr4	$174.67	$147.62	$26.35	$54.42
Grand Total	**$169.13**	**$161.92**	**$29.95**	**$60.22**

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.
- Grouping the column fields.
- The location of the grand totals.
- The appropriate slicer.

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`.