- Name: _____

- Date: _____

- Section: Section 1 (10:00 AM ~ 10:50 AM)

# BUSI 201 Business Data Analysis

# Quiz #4: Conditional Formatting

# Spring 2024

**INSTRUCTIONS:**

- Credit will be awarded for the correct application of filters and conditional formatting, and no credit shall be awarded to manually formatted answers.

- Once you are finished, save/rename the workbook to `LoginID-quiz4.xlsx`, and submit your results via email to `BPARK@monmouthcollege.edu`.

- `BUSI201-S2024-Q04-S01-Workbook.xlsx` is the companion workbook for this quiz.

- The workbook consists of 5 worksheets: `Quiz4-Sheet01-S01` through `Quiz4-Sheet05-S01`

- The quiz booklet contains 2 problems.

- Double-check your submission email for your attached file, file name, and receiver's email address, as you will not be permitted to submit or update your solutions past the in-class deadline.

- The recovery rate for Quiz #4 will be 50%.

## Problem #1. Gradebook

Problem 1 requires you to work on two worksheets, `Quiz4-Sheet01-S01` and `Quiz4-Sheet02-S01`, which are essentially duplicates. The data in either worksheet is that of a hypothetical gradebook for some college level course. Use the data in these worksheets to complete to following tasks. The figures need not exactly match the given example.

**1.A.** Navigate to the worksheet `Quiz4-Sheet01-S01`. Apply conditional formatting to the table so that the rows representing the data on students whose `Total` score is greater than or equal to 90.

| First Name | Last Name | Major | Attendance | Quiz | Midterm | Final | Total |
|---|---|---|---|---|---|---|---|
| Alice | Johnson | Computer Science | 90 | 85 | 55 | 88 | 77.7 |
| Bob | Smith | Economics | 95 | 92 | 80 | 91 | 88.3 |
| Charlie | Brown | Biology | 88 | 76 | 82 | 79 | 80.2 |
| David | Davis | History | 92 | 88 | 95 | 99 | 94.9 |
| Eve | Wilson | Psychology | 89 | 48 | 86 | 92 | 81.1 |
| Frank | White | English | 91 | 78 | 80 | 87 | 83.5 |
| Grace | Miller | Chemistry | 94 | 96 | 89 | 94 | 92.9 |
| Hannah | Martinez | Mathematics | 93 | 85 | 87 | 90 | 88.4 |
| Ian | Anderson | Physics | 87 | 62 | 84 | 78 | 77.5 |
| Jack | Wilson | Computer Engineering | 90 | 89 | 86 | 91 | 89 |
| Katie | Taylor | Marketing | 92 | 87 | 78 | 85 | 84 |
| Liam | Harris | Political Science | 67 | 70 | 54 | 80 | 68.9 |
| Mia | Turner | Sociology | 88 | 75 | 80 | 79 | 79.4 |
| Noah | Clark | Environmental Science | 89 | 93 | 87 | 91 | 90 |
| Olivia | Scott | Business Administration | 94 | 88 | 85 | 92 | 89.3 |

**1.B.** Navigate to the worksheet `Quiz4-Sheet02-S01`. Create a new column between `Final` and `Total`, and use sparklines to plot the students' `Attendance`, `Quiz`, `Midterm`, and `Final` score as shown in the Red Box below.

**1.C.** Staying in worksheet `Quiz4-Sheet2-S01`, apply conditional formatting to the table so that the bottom 20% of attendance scores are highlighted as shown in the Blue Box below.

| First Name | Last Name | Major | Attendance | Quiz | Midterm | Final | Sparkline | Total |
|---|---|---|---|---|---|---|---|---|
| Alice | Johnson | Computer Science | 90 | 85 | 55 | 88 | | 77.7 |
| Bob | Smith | Economics | 95 | 92 | 80 | 91 | | 88.3 |
| Charlie | Brown | Biology | 88 | 76 | 82 | 79 | | 80.2 |
| David | Davis | History | 92 | 88 | 95 | 99 | | 94.9 |
| Eve | Wilson | Psychology | 89 | 48 | 86 | 92 | | 81.1 |
| Frank | White | English | 91 | 78 | 80 | 87 | | 83.5 |
| Grace | Miller | Chemistry | 94 | 96 | 89 | 94 | | 92.9 |
| Hannah | Martinez | Mathematics | 93 | 85 | 87 | 90 | | 88.4 |
| Ian | Anderson | Physics | 87 | 62 | 84 | 78 | | 77.5 |

## Problem #2. Real Estate

Problem 2 requires you to work on three worksheets, `Quiz4-Sheet03-S01`, `Quiz4-Sheet04-S01`, and `Quiz4-Sheet05-S01`. Each worksheet contains a synthetic dataset of some real estate properties near Chicago, IL.

**2.A.** Navigate to the worksheet `Quiz4-Sheet03-S01`. Apply filters such that only houses with exactly 3 bedrooms are visible to the reader.

**2.B.** Navigate to the worksheet `Quiz4-Sheet04-S01`. Apply filters such that only houses in Chicago, which have been on the market for longer than 30 days are visible to the reader.

**2.C.** Navigate to the worksheet `Quiz4-Sheet05-S01`. Sort the data such that the house listing is sorted alphabetically by `City`, and then by lower `Asking Price` as shown in the figure below.

| ID | State | County | City | Street Address | # Bed | # Bath | Asking Price | Year Built | Days on Market | Home Type | Renovation Date | HOA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 31958 | IL | Cook | Chicago | 1111 Oak St | 1 | 1 | $190,000.00 | Jun/06/1972 | 12 | Condo | Sep/13/1989 | 400 |
| 69233 | IL | Cook | Chicago | 505 Cherry St | 1 | 1 | $200,000.00 | Apr/04/1961 | 10 | Condo | Sep/24/1971 | 450 |
| 63678 | IL | Cook | Chicago | 1010 Pine St | 2 | 2 | $280,000.00 | Sep/08/2006 | 18 | Condo | Mar/07/2019 | 350 |
| 24755 | IL | Cook | Chicago | 404 Walnut St | 2 | 1 | $300,000.00 | Nov/15/1987 | 15 | Condo | Jan/10/2000 | 500 |
| 59338 | IL | Cook | Chicago | 123 Main St | 3 | 2.5 | $450,000.00 | Jun/14/1967 | 35 | Single Family | May/23/1981 | 250 |
| 61241 | IL | Cook | Chicago | 1616 Spruce St | 3 | 2.5 | $480,000.00 | Nov/07/2008 | 35 | Single Family | May/19/2022 | 0 |
| 97313 | IL | Cook | Chicago | 1717 Cedar St | 4 | 3 | $550,000.00 | Apr/09/1977 | 40 | Single Family | Jun/06/1990 | 0 |
| 94787 | IL | Cook | Chicago | 456 Elm St | 4 | 3 | $600,000.00 | Sep/03/1975 | 45 | Single Family | Sep/01/1993 | 300 |
| 90108 | IL | Cook | Evanston | 606 Birch St | 3 | 2 | $400,000.00 | Jul/19/1998 | 25 | Single Family | May/25/2017 | 0 |
| 36527 | IL | Cook | Evanston | 1212 Maple St | 4 | 3.5 | $550,000.00 | Dec/29/2015 | 38 | Single Family | Sep/09/2022 | 0 |
| 62143 | IL | Cook | Evanston | 789 Oak St | 5 | 4 | $750,000.00 | Feb/22/1983 | 60 | Single Family | May/20/1994 | 350 |
| 64326 | IL | Cook | Oak Park | 1313 Elm St | 3 | 2 | $320,000.00 | Aug/02/1995 | 22 | Single Family | Oct/05/2013 | 0 |
| 29224 | IL | Cook | Oak Park | 101 Maple Ave | 3 | 2 | $350,000.00 | Dec/10/1991 | 20 | Single Family | May/25/2009 | 0 |
| 20302 | IL | Cook | Oak Park | 707 Redwood St | 4 | 3 | $500,000.00 | Mar/31/1979 | 40 | Single Family | Apr/15/1996 | 0 |
| 40884 | IL | Cook | Skokie | 1414 Birch St | 2 | 1 | $270,000.00 | May/13/1989 | 28 | Single Family | Jul/09/2000 | 0 |
| 42019 | IL | Cook | Skokie | 808 Spruce St | 3 | 2 | $350,000.00 | Oct/12/1973 | 30 | Single Family | Jun/30/1988 | 0 |
| 54556 | IL | Cook | Skokie | 202 Pine St | 4 | 2.5 | $550,000.00 | Aug/07/2000 | 35 | Single Family | Mar/27/2016 | 0 |

- Original Score: _____
- Original Date: _____
- Recovered Score: _____
- Recovered Date: _____