

✓ Congratulations! You passed!

Grade
received 94.28%

Latest Submission
Grade 94.29%

To pass 80% or
higher

Go to next item

1. The final assignment contains two parts.

2 / 2 points

Part 1

Download and open the workbook and go the **Data1** worksheet.



C4 Final Assignment v2
XLSX File

Here you have some weather data for 50 different U.S. cities covering 12 months from January to December. Columns **C** to **N** contain the temperature information where:

- 'M' stands for Month, and the M is followed by a number between 1 and 12 denoting the month of January to December. These are always in order of 1 to 12.
- 'H' stands for High, and the H is followed by a number that is either 2 or 3 digits, giving the average high temperature (Fahrenheit) for that city for that month.
- 'L' stands for Low, and the L is followed by a number that is either 1 or 2 digits, giving the average low temperature (Fahrenheit) for that city for that month.

The data is presented to you in alphabetical order by City.

In the **SummaryHigh** sheet extract the monthly high figure data (all the digits between the 'H' and the 'L') using appropriate Excel functions.

For your workings and calculations, you may use the remainder of the **Data1** worksheet, the **Workings_1** worksheet, or add new worksheets as you need.

Question: Which of the following combination of functions could be used to achieve this task (although you may have used a different solution)?

- ☐ RIGHT, LEN
- ☒ FIND, MID
- ☐ LEFT, FIND
- ☐ SUBSTITUTE, LEN, RIGHT

✓ Correct

2. Observe that the numbers are aligned to the left, this is because they are still text values. Alter the function used so the results are numeric (you will get some errors, ignore them for now.)

1 / 1 point

Question: Which function converts numbers stored as text to numeric values (without losing decimal place information)?

Type in the function name only.

VALUE

✓ Correct

3. Converting the values to numeric caused several #Value errors. If you look carefully you will notice that the data has used a 0 instead of a 0. Adjust the formula to replace the 0s with 0s.

3 / 3 points

In row 55 calculate the highest temperatures for each month.

Question: What is the highest temperature for March?

Type in your number without spaces and special characters.

80

✓ Correct

4. There are still two #VALUE errors for Portland. Identify what is causing the errors and adjust your formulas to correct them.

1 / 1 point

Question: Which function did you need to add?

- ☐ TRIM
☒ SUBSTITUTE
☐ CLEAN
☐ TEXT

✓ Correct

5. If you have successfully cleaned the data, you should now see the completed checksum values in row 57 of the **SummaryHigh** sheet. To help you self-assess if you have done the work correctly, the **SummaryHigh Check Sum** for January should be 259045.

0 / 2 points

Question: What is the CheckSum for June?

Type in your number without spaces and special characters.

415411

✗ Incorrect

6. In the **SummaryLow** sheet extract the monthly low figure data (all the digits after the 'L' using appropriate Excel functions.

2 / 2 points

For your workings and calculations, you may use the remainder of the **Data1** worksheet, the **Workings_1** worksheet, or add new worksheets as you need.

Question: Which of the following combination of functions could be used to achieve this task (although you may have used a different solution)?

- ☐ LEFT, FIND
☒ RIGHT, LEN, FIND
☐ FIND, SUBSTITUTE
☐ MID, LEN, CHAR

✓ Correct

7. As you did with the SummaryHigh figures, adjust your calculations so that they remove any unwanted characters, replace the 0s with 0s and convert the results to numerics, to get a completely clean data set.

3 / 3 points

To help you self-assess if you have done the work correctly, the SummaryLow Check Sum for January should be 172862.

Question: What is the CheckSum for August?

340769

✓ Correct

8. Now select the **MonthSorted** worksheet. Your task for the next few questions is to write some formulas so that when a month is selected from the drop down box at cell **C3**, the green cells in columns **B** and **C** will show each city and its High temperature for that month, but automatically sorted from largest value temperature to the lowest value temperature. So, for example, when February is selected Miami should be at the top and Minneapolis should be at the bottom.

1 / 1 point

If two or more cities have the same temperature, sort those equal cities by alphabetical order (A at the top, Z at the bottom).

Use columns **K-N** of the **MonthSorted** worksheet for your workings, and report the final answers in columns **B** and **C**.

In **K2** use a function to get the appropriate column number from which to select the data for the selected month. For example, if the selected month is January, the formula should return 1.

Question: Which function is best suited to this task?

- ☐ OFFSET
- ☒ MATCH
- ☐ VLOOKUP
- ☐ INDEX

✓ Correct

9. In column **K** use a formula (with the help of the value in **K2**) to retrieve the high temperature for the corresponding city in column **J** and the selected month.

2 / 2 points

Question: Which function would be best suited to this task?

- ☐ INDIRECT
- ☐ MATCH
- ☐ VALUE
- ☒ INDEX

✓ Correct

Yes, using **INDEX** here would be a good choice.

10. Where the temperatures are the same we need to sort by City alphabetically, we can take advantage of the fact the cities are currently correctly sorted so the higher the row number the further down they should go. In column **L** calculate an adjusted value by subtracting 1000^{th} of the row number from the temperature (i.e. temperature - row number/1000).

1 / 1 point

Change the selected month to March, then in a blank cell calculate the sum of the adjusted values.

Question: What is the sum to 3 decimal places?

Enter the answer below using a dot for the decimal point - e.g., 1234.123

2983.525

✓ Correct

Yes, that is correct. You have used the unadjusted row number for this problem.

11. In column **M** use an appropriate function to rank each adjusted value against the rest of the set.

1 / 1 point

Question: What is the sum of the correct rankings for Las Vegas, Los Angeles & Louisville (for March)?

- ☐ 47
- ☐ 48
- ☒ 49
- ☐ 50

✓ Correct

12. In column **N** calculate the sort order using the numbers in column **A** and the rankings in column **M**. In other words in **N5** you should end up with the value 24 as the 24th value in the list (Miami has the highest temperature for March).

2 / 2 points

Question: What is the sum of the rankings for Memphis to Portland (**N27:N39**)?

398

✓ Correct

13. Use the calculated sort order to populate columns **B** and **C** with the cities and temperatures in the correct sort order.

2 / 2 points

Question: Which of the following functions would correctly retrieve the city with the highest temperature:

- ☐ =INDEX(J\$5:J\$54,MATCH(A5,\$N5:\$N\$54,0))
- ☐ =INDEX(J\$5:J\$54,\$N\$5)
- ☒ =INDEX(J\$5:J\$54,\$N5)
- ☐ =INDEX(J\$5:J\$54,MATCH(A5,\$N\$5:\$N\$54,0))

✓ Correct

14. What is the Check Sum for the **City** column (in **B56**)?

2 / 2 points

382726

✓ Correct

15. Congratulations, that is the end of Part 1.

1 / 1 point

Part 2.

Select the **Scenarios** worksheet. The information about the task is presented in the worksheet. Read it, and when you are ready, write the formulas you need in order to populate the green cells at **F54:G83**.

When you are done, answer the questions below.

Make sure to submit all of your answers rounded to the nearest dollar (which should be how they are displayed by Excel), but without any dollar signs or other punctuation.

For example, if you were asked for the value in cell **G54**, which is \$13,171.74, you would write "13172".

(Hint: This is indeed the correct value for cell **G54**. Use it to check your work.)

Question: What is the value of the **Initial Deposit** for Account Number **2**?

7990

✓ Correct

16. What is the value of the **Initial Deposit** for Account Number **5**?

1 / 1 point

7600

✓ Correct

17. What is the value of the **Final Account Balance** for Account Number **11**?

1 / 1 point

13203

✓ Correct

18. What is the value of the **Final Account Balance** for Account Number **20**?

1 / 1 point

22745

✓ Correct

19. What is the sum of the **Initial Deposits** for all of the accounts? (i.e. the value of the Check Sum at cell **F85**)

3 / 3 points

Enter whole numbers only, without a currency symbol or thousands separator.

196830

✓ Correct

20. What is the sum of the **Final Account Balance** for all of the accounts? (i.e. the value of the Check Sum at cell **G85**)

3 / 3 points

Enter whole numbers only, without a currency symbol or thousands separator.

713101

✓ Correct