Unit Assessment: Excel & VBA

Due Aug 22 by 11:59pm   **Points** 100   **Submitting** an external tool

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You are about to complete your first Unit Assessment! This Unit Assessment allows you to check your knowledge, as well as demonstrate your competency in key concepts from Modules 1 and 2.

After submitting the assessment here, you will see a summary of your performance. While you will not be able to see your performance on individual questions, you are allowed unlimited attempts to complete the assessment.

Some of the questions on this assessment require specific resources. Download the following resources before you get started.

Top5000Songs_Unsolved.xlsx **(https://2u-data-curriculum-team.s3.amazonaws.com/dataviz-online/Unit-Assessment-Resources/M2-UA-Excel-VBA/Top5000Songs_Unsolved.xlsx)**

conditional_formatting.xlsx **(https://2u-data-curriculum-team.s3.amazonaws.com/dataviz-online/Unit-Assessment-Resources/M2-UA-Excel-VBA/conditional_formatting.xlsx)**

ProductionPivot_Unsolved.xlsx **(https://2u-data-curriculum-team.s3.amazonaws.com/dataviz-online/Unit-Assessment-Resources/M2-UA-Excel-VBA/ProductionPivot_Unsolved.xlsx)**

house_data.csv **(https://2u-data-curriculum-team.s3.amazonaws.com/dataviz-online/Unit-Assessment-Resources/M2-UA-Excel-VBA/house_data.csv)**

ePhone_prices.xlsx **(https://2u-data-curriculum-team.s3.amazonaws.com/dataviz-online/Unit-Assessment-Resources/M2-UA-Excel-VBA/ePhone_prices.xlsx)**

star_counter.xlsm **(https://2u-data-curriculum-team.s3.amazonaws.com/dataviz-online/Unit-Assessment-Resources/M2-UA-Excel-VBA/star_counter.xlsm)**

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Question 1

Using `Top5000Songs_Unsolved.xlsx`, what is the mean (to the nearest hundredth) of "final_score" for all 5,000 songs?

- ◉ 8.19   ✓
- ○ 8.18
- ○ 8.20
- ○ 8.189089

Attempt #1: 5/5 (Score: 5/5)

Question 2

Using `Top5000Songs_Unsolved.xlsx` , what is the median (to the nearest hundredth) of "raw_usa" for all 5,000 songs?

○ 3.31

○ 4.74

○ 4.345

◉ 4.34   ✔

Attempt #1: 5/5 (Score: 5/5)

Question 3

Using `Top5000Songs_Unsolved.xlsx` , what is the standard deviation (to the nearest hundredth) of "raw_eng" for all 5,000 songs?

◉ 2.65   ✔

○ 2.654

○ 2.66

○ 2.655

Attempt #1: 5/5 (Score: 5/5)

Question 4

Using `Top5000Songs_Unsolved.xlsx` , what is the median (to the nearest thousandth) "raw_usa" score for songs after 1980?

○ 4.340

◉ 3.508   ✔

○ 3.51

○ 4.34

Attempt #1: 5/5 (Score: 5/5)

Question 5

Use `Top5000Songs_Unsolved.xlsx` .

1. Select all of the data within the "Top 5000 Songs" worksheet and then create a new pivot table.
2. Make a pivot table that can be filtered by "year" and contains two rows: "artist" and "name. All of an artist's songs should be listed below their name.
3. Update your pivot table to contain values for:
   ○ how many songs an artist has in the top 5,000
   ○ the sum of the "final_score" of their songs
4. Sort your pivot table by descending sum of the "final_score."

What is the sum (to the nearest thousandth) of "final_score" for the #3 artist?

◉ 486.932   ✔

○ 610.779

○ 293.326

○ 486.93

Attempt #1: 5/5 (Score: 5/5)

Question 6

Open `conditional_formatting.xlsx` and select the range A1:A20.

Under "Conditional Formatting," select "Icon Sets" followed by "Indicators." Then choose the "3 Symbols (Uncircled)."

What icon is applied to cell A1?

○ Green checkmark

○ Yellow circle

○ Green arrow

○ Exclamation point

◉ Red X   ✔

Attempt #1: 5/5 (Score: 5/5)

Question 7

Open `ProductionPivot_Unsolved.xlsx` .

1. Use a `VLOOKUP()` that references each row's "Product ID" and determine the "Product Price" of each row in the Orders sheet. The "Product Price" of a row does not include shipping.

2. Use a `VLOOKUP()` that references each row's "Shipping Priority" and determine the "Shipping Price" of each row in the Orders sheet.

3. Next, select all of the data in the Orders sheet and create a pivot table in a new sheet that calculates the sum of both "Product Price" and "Shipping Price" for each "Order Number" and "Product ID."

Using the pivot table, what is the highest total order price (total product price plus total shipping price) to the nearest cent?

◉ $320.47   ✔

○ $282.72

○ $157.84

○ $648.53

Attempt #1: 5/5 (Score: 5/5)

Question 8

Using `house_data.csv` and the 1.5*IQR rule, how many house prices are outliers?

Note: Use the `QUARTILE.EXC` function in Excel to calculate quartiles.

- ○ 0
- ◉ 1159   ✔
- ○ 566
- ○ $1,129,912.50

Attempt #1: 5/5 (Score: 5/5)

Question 9

Using `house_data.csv` and the rule that outliers are greater than 3 standard deviations from the mean, how many house prices are outliers?

Note: Use the `STDEV.P` function in Excel to calculate standard deviations.

- ◉ 406   ✔
- ○ 21207
- ○ 1159
- ○ 13

Attempt #1: 5/5 (Score: 5/5)

Question 10

An analyst sends you a price list of ePhones in a panic. They accidentally deleted one of the prices and didn't have it stored anywhere else. All they have is a PDF report that says the mean of the prices was $725, and the median price was $750. The other phone prices are $500, $600, $700, $800, and $900. What is the missing price?

- ○ 900
- ◉ 850   ✔
- ○ 750
- ○ 1000

Attempt #1: 5/5 (Score: 5/5)

Question 11

That analyst calls you up the next day, in another panic. They have a list of lead concentration measurements from soil samples, but they've accidentally deleted another entry. The sample measurements were 35, 45, 45, 50, 70, and 75 ppm. They have a report that says the standard deviation of measurements was exactly 15 ppm. What is the

75 ppm. They have a report that says the standard deviation of measurements was exactly 75 ppm. What is the missing measurement? (Hint: use the formula for sample standard deviation)

○ 25

○ 65

◉ 35   ✕

○ 24.29

Attempt #1: 0/5 (Score: 0/5)

Question 12

A given dataset has a median of 500 and a mean of 765. What can be inferred about the dataset?

◉ The dataset is skewed to the right.   ✔

○ The dataset is not skewed.

○ Nothing can be inferred from the information given.

○ The dataset is skewed to the left.

Attempt #1: 5/5 (Score: 5/5)

Question 13

Create a new repository on GitHub and initialize the repository with a README. What is the message of the first commit?

○ "README"

○ "README.md"

○ There are no commits yet.

◉ "Initial commit"   ✔

Attempt #1: 5/5 (Score: 5/5)

Question 14

Open `star_counter.xlsm`.

Create a VBA script that tallies the number of "Full Stars" per student and enters them into the Total column.

What is the average number (to the nearest hundredth) of stars for each student?

○ 3.37

○ 3.3

◉ 3.36   ✔

○ 3.40

○ 𝟻.𝟺𝟶

Attempt #1: 5/5 (Score: 5/5)

Question 15

The following code has a syntax error. Which line of code contains the syntax error?

```
1 Sub SumNumbers()

2    Dim total As Integer

3    total = 0

4    For i = 1 To 100

5        total = total + i

6    End For

7    MsgBox (i)

8 End Sub
```

○ Line 1

○ Line 2

○ Line 3

○ Line 4

○ Line 5

◉ Line 6   ✔

○ Line 7

○ Line 8

Attempt #1: 5/5 (Score: 5/5)

Question 16

The following code snippet calculates the sum of values in cells A1 to A100, but one line has been obscured with asterisks (***). What is the obscured line?

```
    *********

    For i = 1 To 100

        total = total + Cells(i, 1).Value

    Next i
```

```
○  total = 0
```
✔

```
○  MsgBox("total")
```

```
○  Sub Calculate():
```

Attempt #1: 5/5 (Score: 5/5)

Question 17

What keyword is used to initialize a variable in VBA?

○ `Run`

● `Dim`   ✔

○ `Next`

○ `Sub`

Attempt #1: 5/5 (Score: 5/5)

Question 18

What VBA method is used to generate a message box?

○ `Msg Box`

○ `MgBx`

● `MsgBox`   ✔

○ `MessageBox`

○ `Message Box`

Attempt #1: 5/5 (Score: 5/5)

Question 19

A junior analyst tells their coworker that the `InputBox` method is used to take input from the user in VBA. Is this a correct statement?

○ No, the correct method is the `input()` method.

○ No, the correct method is the `InputUsr` method.

● Yes, the statement is correct.   ✔

Attempt #1: 5/5 (Score: 5/5)

Question 20

Open a new Excel file, and write your favorite number in cell A1. Write a VBA macro to format cell A1 as a percentage to a tenth of a percent and set the font style to bold.

to a tenth of a percent and set the font style to bold.

Which of the following snippets will run correctly in your macro?

○ Range("A1").NumberFormat = vbPercent(1)
   Range("A1").Font.FontStyle = "Bold"

○ Range("A1").NumberFormat = "0.0%"
   Range("A1").Font.FontStyle = vbBold

○ Range("A1").NumberFormat = vbPercent(1)
   Range("A1").Font.FontStyle = vbBold

◉ Range("A1").NumberFormat = "0.0%"   ✔
   Range("A1").Font.FontStyle = "Bold"

Attempt #1: 5/5 (Score: 5/5)

↻ Retake