Assignment 6: Working with Microsoft Excel and Word

Due Date: Wednesday, December 04 by 6:00 pm.
Late Policy: This assignment will be accepted up to one (1) day late.
Assignments submitted after Dec 04 at 6:00 PM but before Dec 05 at 6:00 AM will be deducted 10% of the total grade.
Assignments submitted after Dec 05 at 6:00 AM but before Dec 05 at 6:00 PM will be deducted 25% of the total grade.
Assignments submission will be closed at 6:00 PM on Dec 05 and no assignments can be submitted to OWL after that time.

This description of the assignment contains instructions that tell you to create files with names that have a specific format. In these file names; the "youraccountname" is your UWO username.

Project 1: Microsoft Excel

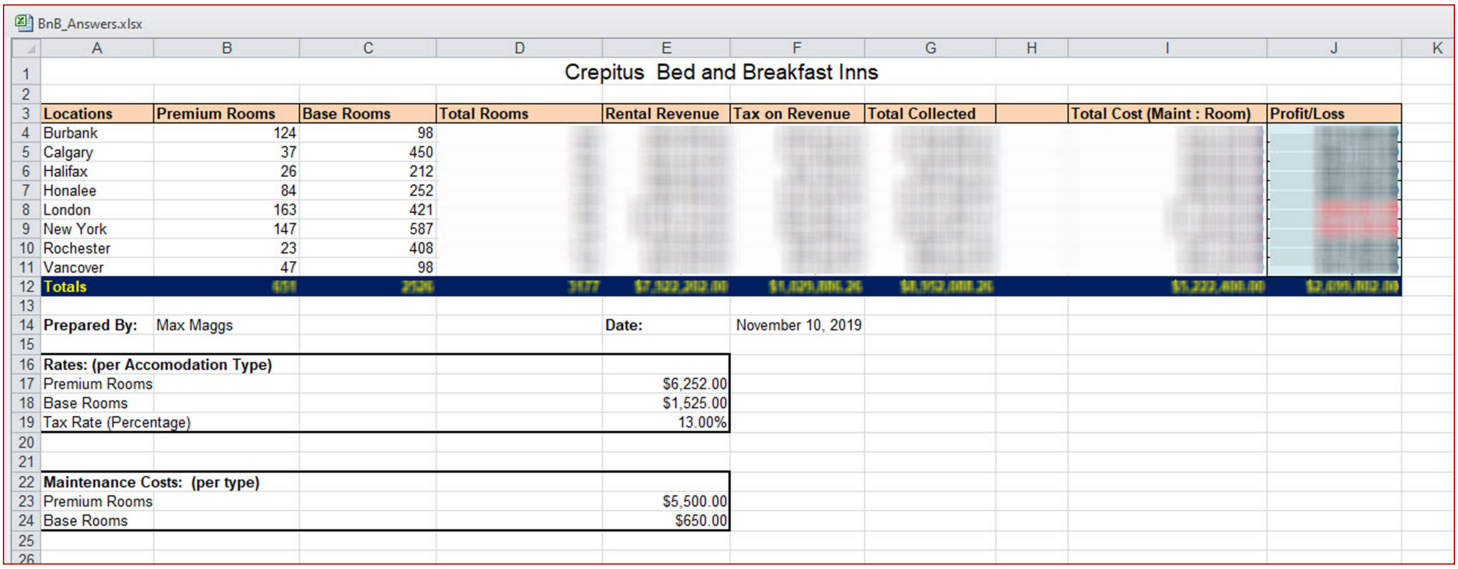
This project prepares revenue information for the Bed and Breakfast Inns. The partially completed workbook used for this project is stored in the file "BnB.xlsx". You MUST use this file for the assignment or you will lose marks.

The workbook is intended to compute the revenue and profit/loss for the BnB Inns.

The revenue includes the monies collected from Premium and Base rooms. Tax on Revenue is the total amount of taxes collected from the customers. The Tax is the tax rate (percentage) obtained by multiplying the Revenue times the provided Tax Percentage. The Tax will be a 'cost' to the Inns and not a profit (we are not allowed to keep the tax monies we collect from sales…). The Tax is an extra charge to the customer. It is NOT embedded in the room cost.

The Profit/Loss will be computed as the difference between the monies collected minus the maintenance costs and minus the taxes.

Your finished work should resemble the image below (with the correct answers of course…):



BnB_Answers.xlsx

	A	B	C	D	E	F	G	H	I	J	K
1	Crepitus Bed and Breakfast Inns										
2											
3	**Locations**	**Premium Rooms**	**Base Rooms**	**Total Rooms**	**Rental Revenue**	**Tax on Revenue**	**Total Collected**		**Total Cost (Maint : Room)**	**Profit/Loss**	
4	Burbank	124	98								
5	Calgary	37	450								
6	Halifax	26	212								
7	Honalee	84	252								
8	London	163	421								
9	New York	147	587								
10	Rochester	23	408								
11	Vancover	47	98								
12	**Totals**										
13											
14	**Prepared By:**	Max Maggs			**Date:**	November 10, 2019					
15											
16	**Rates: (per Accomodation Type)**										
17	Premium Rooms				$6,252.00						
18	Base Rooms				$1,525.00						
19	Tax Rate (Percentage)				13.00%						
20											
21											
22	**Maintenance Costs: (per type)**										
23	Premium Rooms				$5,500.00						
24	Base Rooms				$650.00						
25											
26											

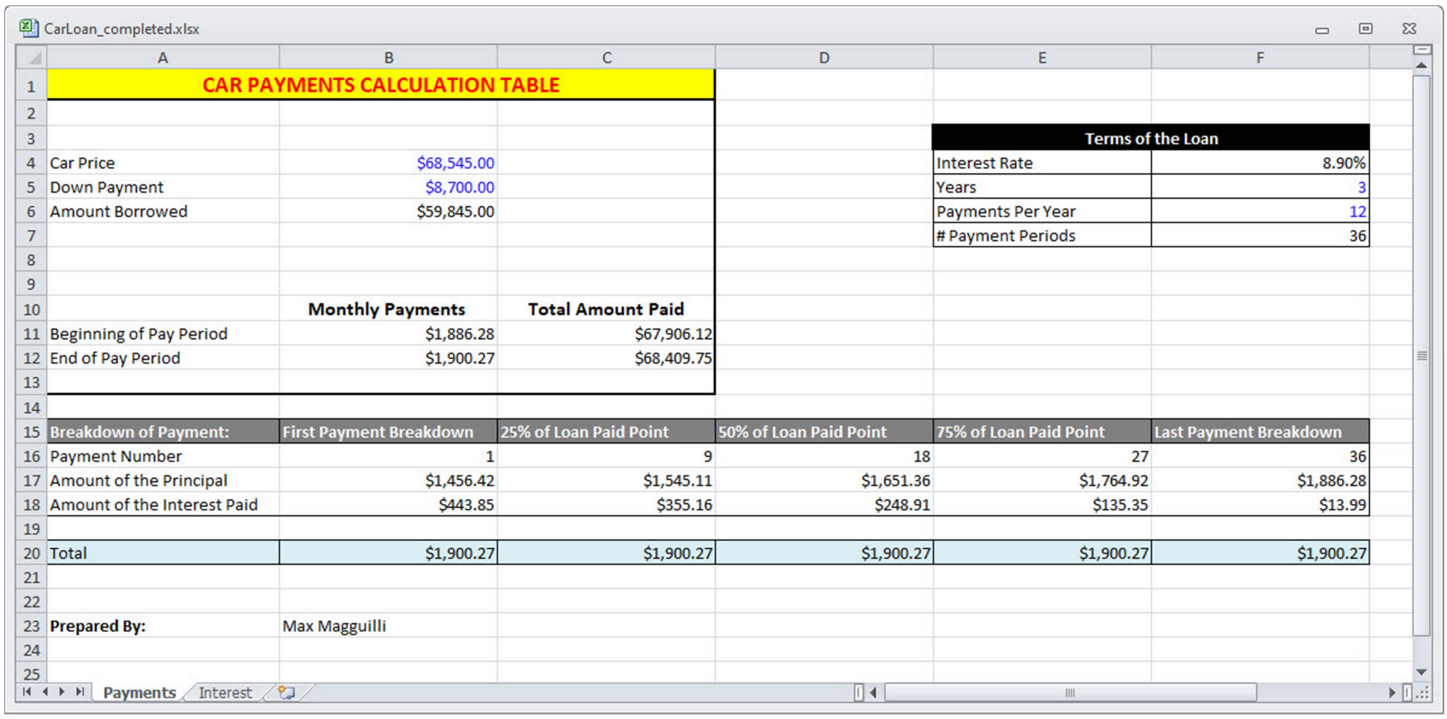
Complete the following instructions and save your workbook in a file named "youraccountname_BnB.xlsx" and attach this file to your submission.

A) Develop the formulas for the **Total Number of Rooms** per Location, **Total Revenue** per Location, **Taxes** Collected (this is NOT included in the Rental Revenue, but is collected from the customers in addition to the charge for their use of the rooms), **Total Collected** (all monies collected from the customer. This includes the cost of the rooms AND the Tax).**Total Cost** (what does it cost to maintain these rooms, based on the costs found in cells E23 and E24). The **Profit/Loss** for that Location. The formulas for these calculations will use the information provided in the table and the Rates and Costs sections of the worksheet. The formulas must be created **using cell references** so that they can be copied to the other locations on the worksheet.
   note: Tax is percentage of the cost of renting the room
      so: if the rooms all rented for $100.00 and 5 were rented and the Tax Percentage is listed as .05
      then the additional Tax for all rentals would be $25.00 (5% of $500.00).
B) Copy the formulas for the first Location (Florida) to the remaining seven locations.
C) Calculate the Profit/Lost column (column J) using the correct cells and cell references.
D) Calculate the Totals row using the SUM function and cell references
E) Name this worksheet: BnB and delete any unused sheets in the workbook.
F) Format the worksheet as follows;
   a. Display all dollar amounts with the currency symbol and two decimal places
   b. Sort the worksheet in ascending order by Location name
   c. Highlight and bold the titles of the columns, Profit/Loss column and Totals row as shown in the image above (you may use different colors for the highlighting if you wish).
   d. Adjust the column sizes to fit the information contained in them
   e. Increase the font size of the Title and center the Title within the worksheet columns
   f. Add your name to the worksheet following “Prepared by:” (B14)
   g. Conditionally format the Profit/Loss column so that any values above $300,000.00 will appear as red text and any value equal or below that will be in black text.
   h. Add the current date (format Month Day, year - example: July 6, 2020) to the worksheet following “Date:” (F14)

Project 2: Microsoft Excel

The partially completed workbook is stored in the file “CarLoan_BLANK.xlsx”. The workbook is intended to calculate the car loan payments based on the price of the car, the amount of the down payment and the duration of the loan. The workbook will also break down payments between the amount that will go towards paying off the actual principle and amount of the payment that goes towards the interest payment. Notice that your early payments are going almost entirely to paying the interest of the loan. Conversely, the later payments are counted more towards paying the principal of the loan. The banks make sure that they make their money up front. You must use the supplied file “CarLoan_BLANK.xlsx” as your workbook or you will lose major marks if you use any other file.

The partially completed workbook contains two worksheets to provide the information necessary to complete this project.
Complete the following instructions and save your workbook in a file named "youraccountname_CarLoan.xlsx" and attach this file to your submission.



CarLoan_completed.xlsx

	A	B	C	D	E	F
1	CAR PAYMENTS CALCULATION TABLE					
2						
3					Terms of the Loan	
4	Car Price	$68,545.00			Interest Rate	8.90%
5	Down Payment	$8,700.00			Years	3
6	Amount Borrowed	$59,845.00			Payments Per Year	12
7					# Payment Periods	36
8						
9						
10		Monthly Payments	Total Amount Paid			
11	Beginning of Pay Period	$1,886.28	$67,906.12			
12	End of Pay Period	$1,900.27	$68,409.75			
13						
14						
15	Breakdown of Payment:	First Payment Breakdown	25% of Loan Paid Point	50% of Loan Paid Point	75% of Loan Paid Point	Last Payment Breakdown
16	Payment Number	1	9	18	27	36
17	Amount of the Principal	$1,456.42	$1,545.11	$1,651.36	$1,764.92	$1,886.28
18	Amount of the Interest Paid	$443.85	$355.16	$248.91	$135.35	$13.99
19						
20	Total	$1,900.27	$1,900.27	$1,900.27	$1,900.27	$1,900.27
21						
22						
23	Prepared By:	Max Magguilli				
24						
25						

Payments | Interest

Use **cell references** not cell values in all of the formulas.

On the first worksheet:

A) Calculate the amount borrowed and place this calculation in Cell B6.

B) Develop the formula to calculate interest rate of the loan in cell F4. The formula must use the VLOOKUP function. It will base the Interest Rate on the value entered in cell F5 (the duration of the loan in years) based on the table in the Information worksheet of this workbook.

C) In Cell F7, calculate the total number of loan payments (# Payment Periods).

D) In Cell B11, calculate the monthly payments based on paying at the beginning of the period
Monthly payment
   i. calculated using the PMT function
   ii. using cell references not cell values
   iii. shown as a **positive** number
   iv. payment at beginning of payment period

E) In Cell B12, calculate the monthly payments based on paying at the end of the payment period
Monthly payment
   i. calculated using the PMT function
   ii. using cell references not cell values
   iii. shown as a **positive** number
   iv. payment at end of payment period

F) In Cells C11 and C12 calculate the total amount of the loan based on the corresponding payment structure. (C11 total amount paid based on beginning of period payments – C12 based on end of period payments.)

G) Loan payments are structured on a sliding scale of principle (what you borrowed) and interest (what you pay in order to borrow the money). The scale starts with more of the payment going towards interest than towards the principle borrowed.

The Cells B17 and B18 show the breakdown of how much of the payment is principle and how much is interest in the first payment.

The following cells will show the breakdown at the quarter, half, three quarters and last payment.

Cell C16 will calculate the payment number at the quarter point (25% point of paying back the loan). This is simply the total number of payments multiplied by 25%. D16 will then be the payment number at the half way point (50% point of paying back the loan). This is simply the total number of payments multiplied by 50%. E16 will then be the payment number at the three quarter point (75% point of paying back the loan). This is simply the total number of payments multiplied by 75%. Finally, F16 is the last payment. This will just be the total number of payments represents the value of the number of the last payment made.

Cells B17 and B18 have been prefilled with the formulas for the breakdown of principle and interest. Edit these formulas so they can be copied to the corresponding cells (C17 to F18)

H) In cells B20 to F20 simply compute the totals of the principle and interest for each column to demonstrate that the combination of the two do indeed add up to the monthly payment (based on paying at the end of the period)

I) Format the first worksheet as follows;
   a. Display all dollar amounts with currency symbol and appropriate decimal places
   b. Merge and Center the label in A1 up to C1. Increase the font size and bold the label
   c. Put a box outline in the range of A1 to C13 and underline the label in A1
   d. Merge and Center the label in E3 up to F3. Increase the font size and bold the label
   e. Put a box outline in the range of E3 to F7 and line all the boxes in that range
   f. Add your name to the prepared by in Cell B23
   g. Highlight (change the background color) the cells in the range of A15 up to F15 and the range of A20 to F20 as shown in the image above.
   h. Put a box outline in the range of A15 to F18 and line all the boxes in that range
   i. Highlight (change the background colors) of all the four (4) label rows so they look like the image above.
   j. Change the font color of any cell that can be changed by the user to a blue color text.
      - Cells B4, B5, F5 and F6
   k. Rename the worksheet labeled “Sheet1” to “Payments”
   l. remove any extra (unused) worksheets from the workbook

Project 3: Microsoft Word and Excel

For this project, create a Word and an Excel document that contain information about a car you are planning to purchase. The document should be used to provide information to the financial institution you are approaching to provide the funds needed to purchase this item. The information contained in the Word document and the Excel spreadsheet can be real or fictional. This should be three or four short paragraphs in length.
You are not graded on what you write, only that the imbedded Excel is included with some text. Describe the make and model of the vehicle, why you pick this car, etc.

Complete the following instructions. Save your Word document in a file named: "youraccountname_CarLoan.docx".

Link the payment portion of Project 2 (Cells A1 to C13) to that document.

CAR PAYMENTS CALCULATION TABLE		
Car Price	$68,545.00	
Down Payment	$8,700.00	
Amount Borrowed	$59,845.00	
	Monthly Payments	**Total Amount Paid**
Beginning of Pay Period	$1,886.28	$67,906.12
End of Pay Period	$1,900.27	$68,409.75

In the Excel workbook, select all of the cells in your spreadsheet containing data and copy the selected range to the clipboard. Open the Word document you created and insert your Excel workbook into it by using the paste option that allows the Excel workbook to be linked into the Word document.

NOTE: This is a 'live' link. So data changed in the Excel sheet will instantly be updated in an opened Word document or will be reflected next time the Word document is opened. These updates will occur with no intervention, editing or change is required by the user. The TA will test this link by making a change in your Excel file and then checking your Word file. The values in the Word file MUST reflect the change in the Excel file.

You can test your link by changing values in the Excel document and then checking your Word document.

Project 4: Information Systems Questions about Your Company

Create a one page MS Word document and complete the following questions pertaining to the business you described in Assignment One (1).

1.) Would allow a committee of your employees to make decisions or should you as the company owner have the final vote and make all the decisions?
    - briefly explain your answer

2.) Name one way you might use MS Excel in your company?
    - briefly describe how it could be used and what need it would fulfill.

3.) After what you have learned in CS1032, do you think you would be interested in running a company of your own?
    - briefly explain your answer

The format of this document should be identical to format you used in Assignment One (1).
Place your name, followed by the company name at the top.
Fill in the required information after.
At the end of the document, include your name, Student number and Western ID (the first part of your Western email (i.e. if your email was - **derntwis@uwo.ca** your ID would be - **derntwis**)
Formatting is not important as long as the document is easy to follow:

This document must be a Word file saved and submitted as a .doc (or .docx) file
The name must be a combination of your Western Account Name and the name of your company.
The file name must be youraccountname_yourcompanyname_A6.doc (or .docx)
    - example (from above) dernt373_MaggicSoftware_A6.docx

Submission Instructions:

Upload and submit the following files using the assignment tool on the CS1032 OWL/Sakai site:

- youraccountname_BnB.xlsx (later versions)
- youraccountname_CarLoan.xlsx
- youraccountname_CarLoan.docx (2003)
- youraccountname_yourcompanyname_A6.docx