Aplicaciones Ofimáticas (Office Applications)

Unit 09. Assessable activities 03

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Nomenclature

Throughout this topic different symbols will be used to distinguish important elements within the content. These symbols are:

📖 **Important**

❕ **Attention**

💬 **Interesting**

📕 **To submit**

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Unit 09. Assessable activities 03

1. Deadline

Deadline: Friday, March 10 at 11:55 p.m.

The activity will be evaluated when the delivery deadline has passed.

> ! **Attention:** the delivery date is not extendable. If you do not deliver it in time and form, the qualification of the activity will be 0.

2. Observations prior to carrying out assessable tasks

- Except for exceptions indicated in each activity, you must generate a single document for the entire newsletter and in that document include the response to each activity.
    - If delivery requires delivery of several files, deliver them compressed into a single file with a ".zip" extension.
- When documents are delivered, they must have a good presentation. Although the document to be delivered is small, it must have a cover, index, header, footer (with page number), in addition to being consistent in style.
    - The index will only be necessary if the document (not counting the cover) occupies more than one page and has more than one section.
- The activities must be carried out in the language indicated in each activity. You have to try to do the grammar and spelling well.

> ! **Attention:** Failure to comply with these considerations can reduce the grade up to 3 points. Remember the landscape format and that it is in English.

1. Exercise 01

Using Excel (Office 365), Google Spreadsheet or LibreOffice Calc, create a spreadsheet that stores the prices of a Steam game for each row over several periods of 6 months. You need to create 3 0 4 rows, extracting the data https://steamdb.info/. Next, you must create a graph that shows the price evolution of those games in a comparative way (Indicating the price on the Y Axis and the time period on the X Axis). In addition, the functionality of filters and pivot tables should be used to analyze and present the data in a more intuitive and easy-to-read way.

Suggested strategy:

1. Extract Steam game pricing data from https://steamdb.info/ and store it in a spreadsheet.
2. Create columns for each game and rows for each 6-month period, so that there is a table with the necessary information to represent the price evolution.
3. Use function formulas in Excel (such as SUM, AVERAGE, MIN, MAX) to calculate the average, maximum, and minimum prices per game and per time period.
4. Create a line or bar graph that shows the price evolution of the games on the Y axis and the time period on the X axis.
5. Customize the chart to include labels on the Y-axis with prices and on the X-axis with time periods, as well as adding appropriate titles for the chart and axes.
6. Use the functionality of filters and pivot tables to analyze and present data in a more intuitive and easy-to-read way.
7. Verify that the formulas are working correctly and producing the expected results.

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2. EXERCISE 02

Create with Excel (Office 365), Google Spreadsheet or LibreOffice Calc, a spreadsheet that you can put in each row an entry of a character from a game. Each entry will indicate the character's name and stats. These stats will be speed, strength, intelligence, dexterity, luck, and hit points. It shows those statistics on a “radar chart” (or “net chart” in LibreOffice Calc).

Suggested strategy:

1. Define the columns with the following headings: Name, Speed, Strength, Intelligence, Dexterity, Luck, and Life Points.
2. Enter the data of the characters, one per row, including name and statistics.
3. Select the data for the table, including the column titles.
4. Go to the "Insert" tab and select "Chart" and then "Radar Chart".
5. Configure the chart to your desired preferences, including the title and legend.
6. Verify that the results are correct.

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3. EXERCISE 03

Create with Excel (Office 365), Google Spreadsheet or LibreOffice Calc, a spreadsheet that you can put in each row an entry of a student's notes. Each entry will contain the student's name, exam grade (50%) and practice grade. Next to it, using a formula, you must calculate the final grade. This grade will be the average between the exam and the practicals, provided that both grades are equal to or greater than 4. If any of the two grades is not equal to or greater than 4, the maximum grade will be 4. Finally, it shows a graph of the "pie" showing pass rate.

Suggested strategy:

1. Create a column for the student's name, another for the exam grade, another for the practice grade and another for the final grade.
2. Apply a formula that calculates the final mark based on the exam and practical marks and according to the specified conditions (average between the two marks as long as both are equal to or greater than 4 and a maximum of 4 if one of the two does not meet this condition)
3. Create a graph of the "pie chart" type that shows the percentage of passes (students with a final grade equal to or greater than 4).
    a. This can be done by inserting a pie chart and selecting the "pie chart" option.
    b. Then, select the final grade column as data for the graph and group the passes and fails into two different categories.

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4. EXERCISE 04

Create with Excel (Office 365), Google Spreadsheet or LibreOffice Calc, a spreadsheet that helps you calculate how many hours you want to study per day (fixed element) and allows you to

indicate how much you have studied each day, coloring the day in red if that day you have studied less than the hours you wanted, blue if you have studied the hours you wanted or green if you have studied more hours than you wanted.

In addition, it must show in a field the deficit of hours (if you have studied more than you should or not, based on the hours you wanted to study per day), with a red color if it is less, green if it is the same or more.

Suggested strategy:

1. Add two columns, one for the day and one for the number of hours studied each day.
2. Create a cell to indicate the fixed daily hours that you want to study.
3. Create an additional column to calculate the shortfall of studied hours, using a formula to compare the number of studied hours with the fixed daily hours.
4. Create a conditional formatting table to color the rows depending on the formula's result in the shortfall of hours. For example, red if there is a deficit, blue if the set hours have been studied and green if more hours have been studied.
5. Create a pie chart to show the percentage of days with a deficit and the days with hours studied equal to or greater than the hours set.
6. Verify that everything works correctly.

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5. EXERCISE 05

Create with Excel (Office 365), Google Spreadsheet or LibreOffice Calc, a spreadsheet that simulates a pyramid scam, where users invest money in the hope of earning a large amount of money, but are vilely scammed.

The spreadsheet must have columns to record the investments of the users and the profits that they will supposedly obtain, knowing that they have been promised 5% of the investment per year.

You must also show the total money in the scam and compare it with how much would be needed if all users decided, when charging their interest, to remove both interest and money deposited.

Suggested strategy:

1. Define the necessary columns to record the required information: user name, amount invested.
2. With this data, other columns would be calculated: interest earned after one year and total money.
3. Use formulas to calculate the total money (amount invested plus interest earned).
4. Create a section to calculate the total money of the scam, adding all the investments of the users.
5. Create a section to calculate the amount of money that would be needed if all users wanted to withdraw their money (interest plus amount invested).
6. Compare the results and display the spreadsheet in a clear and concise way, so that users can see the impossibility of winning a large amount of money in a pyramid scheme. Emphasizing the dangers of investing in pyramid scams.

📕 **To submit:** deliver the requested document.