Faculty of Arts & Sciences

Department of Computer Science

CMPS 209 - Sample Lab Exam Questions

Exercise 1

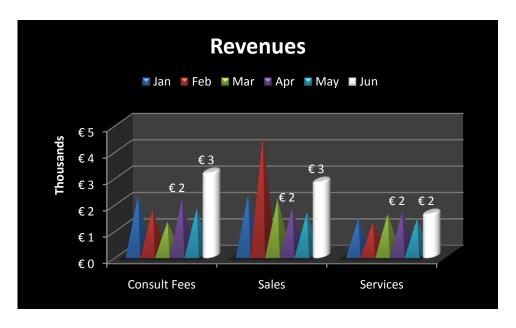
- ➤ Open the Excel "PrivateJet.xlsx" datafile
- > Formatting the table:
 - o The title must be inserted in Cell A1 on 2 different lines.
 - o Format all the values in the tables as shown.
 - o Format the borders as shown below.
 - Adjust the alignment as shown below
- Fill the "total (EURO)" B10 and "total" B22 rows and columns H7 and H16 in both tables using the appropriate function, use the fill handle to copy the function when possible.
- ➤ Use the appropriate tool to change the color of the revenue cells holding the lowest 20% values.
- ➤ Use the appropriate tool to change the cell format of the expenses cells as shown below.
- ➤ Insert in cell B11 a formula that convert the EURO amount of the total cell into LBP using the value in B3.
- ➤ Insert in cell D25, a function that computes the average of values that are between 1000 and 1200 in the expenses table.
- ➤ In cell D26, insert a function that computes the sum of all the values in the expenses table that are less than €1000.

> Chart:

- Insert a clustered pyramid chart for the revenues table (Consult Fees, Sales, and Services).
- Copy the chart on the same worksheet.
 The following questions must be applied to the copied chart
- o Insert the chart title "Revenues" and apply an effect of your choice.
- o Switch the rows and the column of the chart.
- o Format the June series to have a white cylinder.
- o Show the vertical axis in thousands.
- o Change the location of the legend as shown.
- o Add a white marble texture fill to the chart area.
- o Add data labels for both April and June.
- Copy the updated chart on the same workbook.
 The following questions must be applied to the copied chart
- o Change the style of the chart to style 42.
- Rotate the chart as shown below.

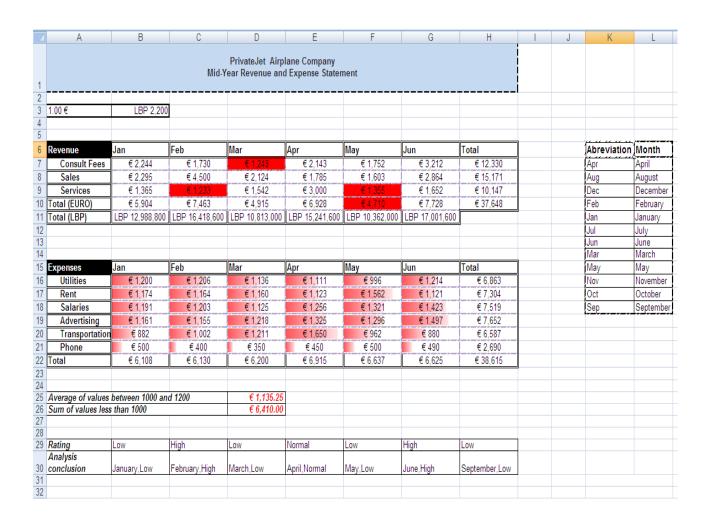
> MACRO:

 Record a macro that inserts a new row at the beginning of the workbook and writes your name in the first cell and your id number in the second. The shortcut for this macro must be CTRL+h.



Functions:

- o Write an appropriate function in cell B29 that displays the rating based on the net profit. If the net profit is less than zero, it displays "Low". If the net profit is between zero and 200 €, it displays "Normal", otherwise, it displays "High", then use the fill handle to complete the table.
- Write an appropriate formula in cell B30 that uses the Abbreviation table to get the month name and concatenate it with the rating as shown below, then use the fill handle to complete the table.



Exercise 2

- > Open the word (Minix.docx) datafile.
- ➤ Center the title "Minix" on the first page. Apply Art style 20 to the Title, fancy style and oriel color to your document, and then apply 3-D style 6 effect.
- Format the first paragraph as shown below (figure 1); pay attention to the indentation, borders, alignment, spacing...and finally apply the blue accent 2 Darker 50% shading to the paragraph.
- Apply border to the second paragraph as shown below.
- > Search for all occurrence of the word "Minix" in the third paragraph (except the title) and substitute it with the word "MINIX" as shown.
- Format the third paragraph as shown below (figure 3) (Font Algerian)
- Format the Text and the picture "minix.gif" as shown below.(figure 4)



MINIX is a free/open source, Unix-like operating system (OS) based on a microkernel architecture. Andrew S. Tanenbaum wrote the operating system to be used for educational purposes; MINIX also inspired the creation of the Linux kernel. Its name derives from the words minimal and Unix.

Figure 1

Andrew S. Tanenbaum created MINIX at Vrije Universiteit in Amsterdam to exemplify the principles conveyed in his textbook, Operating Systems: Design and Implementation (1987).

Figure 2

Anenbaum originally developed MINIX for compatibility with the IBMPC and IBMPC/AT microcomputers available at the time. MINIX 1.5, released in 1991, included support for MicroChannel IBM PS/2 systems and was also ported to the Motorola 68000 and SPARC architectures, supporting the Atari ST, Commodore Amiga, Apple Macintosh and Sun SPARC station computer platforms.

Figure 3

MINIX 3 is a project with the aim to create a small, highly reliable and functional Unixlike operating system.



The main goal of the project is for the system to be fault tolerant by detecting and repairing its own faults on the fly, without user intervention.

Figure 4 Hint (Use Table)

Exercise 3

- ➤ Insert a page break before the title "MINIX"
- ➤ Insert a section break before "History".
- ➤ Insert a page break before "What is Minix 3".
- ➤ Insert a section break before "Minix and Linux".
- > Insert a section break before and after "Licensing".
- Insert a page break after the inserted table.
- ➤ Apply an artistic page border for all the pages of the second section except the first page.
- ➤ Change the orientation of section four only to landscape
- Insert a table of contents on the first page as shown below.

HISTORY
Minix 1
Minix 1.0
Minix 1.5
MINIX 2
Minix 2.0
Minix-vmd
MINIX 3
WHAT IS MINIX 3?
MINIX 3 FEATURES
HARDWARE REQUIRED
CURRENT STATUS
DIFFERENCE BETWEEN MINIX 3 AND PRIOR VERSIONS
MINIX AND LINUX
ACCUSATIONS OF LINUX BEING STOLEN FROM MINIX
LICENSING.
OPERATION SYSTEM ARCHITECTURE TABLE

- ➤ Insert a "TOP SECRET" watermark on the whole document.
- ➤ Insert a motion header to the odd pages except the first page.(Section 4)
- Insert page numbers using the bold number three style in the footer.

- ➤ Insert an endnote after the title "Minix" with the text "Minix is an open source operating system".
- > Save your work.

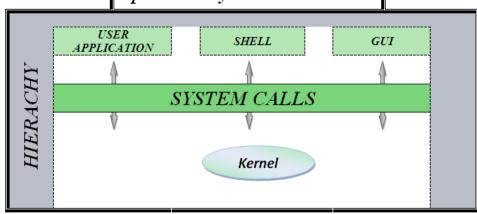
Exercise 4

- Format the list shown on the last page as shown below.
 - ∇ INTRODUCTION
 - ∇ WHAT IS AN OPERATING SYSTEM?
 - * The Operating System as an Extended Machine
 - X The Operating System as a Resource Manager
 - ∇ HISTORY OF OPERATING SYSTEMS
 - ★ The First Generation (1945-55) Vacuum Tubes and Plugboards
 - * The Second Generation (1955-65) Transistors and Batch Systems
 - ★ The Third Generation (1965-1980): ICs and Multiprogramming
 - The Fourth Generation (1980-Present): Personal Computers
 - ∇ History of MINIX
 - ∇ OPERATING SYSTEM CONCEPTS
 - ✗ Processes
 - × Files
 - * The Shell
 - ★ System Calls
 - a- System Calls for Process Management
 - b- System Calls for Signaling
 - c- System Calls for File Management
 - ∇ SUMMARY

Exercise 5

> Table:

Operation System Architecture



- Insert and format the table shown below under the title "Operation System Architecture". (border and Shading)
- o Choose your preferred colors.
- > Save your work.

