University of Mila   *2025 / 2026*
Mathematic & computer sciences institut   *HCI*
Computer sciences department   *3 rd year*
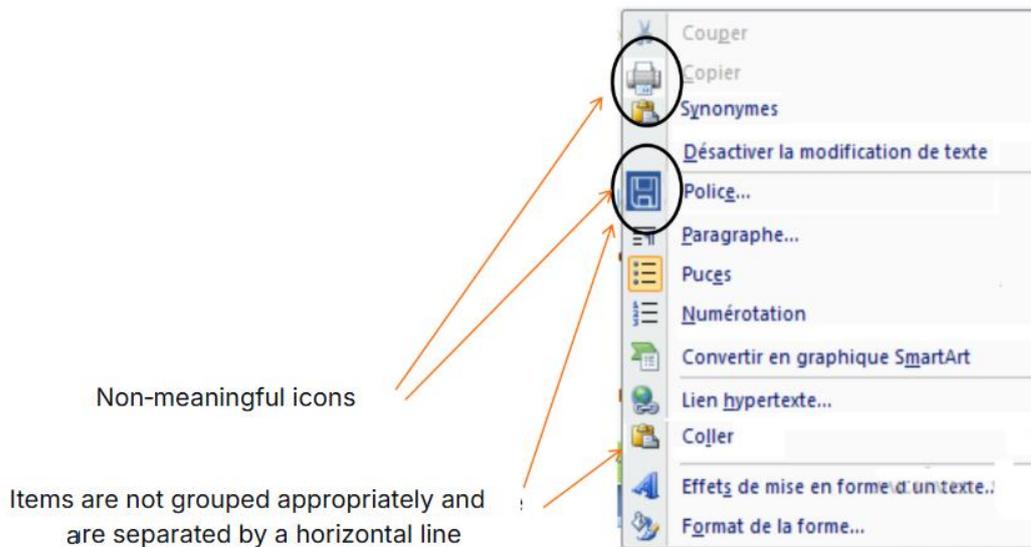
SW 4 : Interface Organization (correction)

Exercise 1

1. Keyboard shortcuts involve pressing two keys on your keyboard simultaneously. For example, Ctrl + C to copy. Access keys allow you to access a function: for example, (F2 + Del) to access the BIOS.

2. The odd thing is the presence of functions like Banner, Transition... in the Edit menu.

3. When using an interface on Windows, you should consider using standard Windows shortcuts, for example, to copy: Ctrl + C.
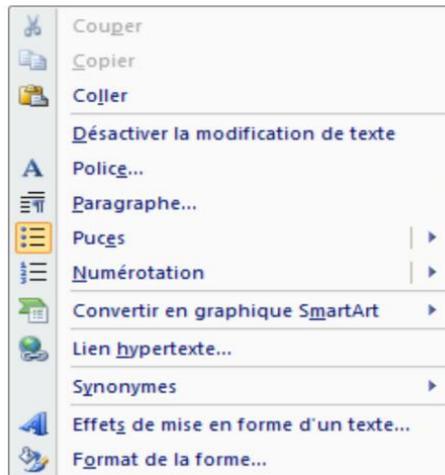
Exercise 2

1. A context menu

2. Erroneous elements:

Non-meaningful icons

Items are not grouped appropriately and are separated by a horizontal line

There is no hierarchy; for example, to choose a bullet point, it must be done through a series of dialog boxes

2

Exercise 3

1. The visibility and accessibility of screen areas.

   For interfaces used with a mouse (or other pointing device), it is considered that areas close to the corners are harder to reach (movement is more constrained).

2. .

Très visible Peu accessible	Très visible Bien accessible	Assez bien visible Peu accessible
Bien visible Bien accessible	Zone la plus visible Zone la plus accessible	Très visible Bien accessible
Pas très visible Peu accessible	Peu visible Peu accessible	Peu visible Peu accessible

3. Why must interface elements be well arranged?

When designing interfaces, behavior rules must be taken into account, and interface elements should be arranged so that users quickly perceive important elements, thereby enhancing the system's usability.

4. What does accessibility depend on for mobile devices with touch interfaces (smartphones, tablets)?

For mobile devices with touch interfaces (smartphones, tablets), accessibility depends on:

- How the device is held
- How interaction is performed (one hand, two hands, index finger, thumbs, etc.)
- Whether the user is right-handed or left-handed

Exercise 4

No.	Justification
1	Labels written in bold.
2	There is no guidance (example/hint) in the date field.
3	Use of checkboxes means both genders can be selected at once; radio buttons should be used instead.
4	"Age" information is redundant because it can be calculated from the date of birth.
5	Button size is too large and alignment is inconsistent.
6	The "OK" and "Save" buttons have the same function.
7	Button order: Save on the left, Cancel on the right, and Reset in the middle.

Exercise 5

Style guides (guidelines) are:

- Specifications to follow when designing HCI (Human-Computer Interfaces) for a given operating system

- o The visual aspect of interfaces
- o How interactions function
- o Different levels of granularity (the smallest level of detail handled)

Advantages:

- o Consistency across applications
- o Easier learning and use
- o Integrated into development environments

Limitations:

- o Specific to an operating system/version
- o Not the same as ergonomic recommendations, but adherence to guidelines

Exercise 6

The acronym WIMP (Windows, Icons, Menus, Pointing device) refers to a type of graphical user interface.

WIMP interfaces allow users to interact with the system from the computer screen using a pointing device (the mouse) and interface elements such as windows, drop-down menus, and icons, which represent actionable commands. This is therefore referred to as a direct manipulation graphical interface.

Content is presented in WYSIWYG format ("What you see is what you get"), in contrast to command-line or text-based interfaces.

Exercise 7

- • UPPERCASE letters are less readable than lowercase letters

→ The first sentence should be removed

- • Underlined words slow down reading

→ The third sentence should be removed

- • The second sentence is easier to read
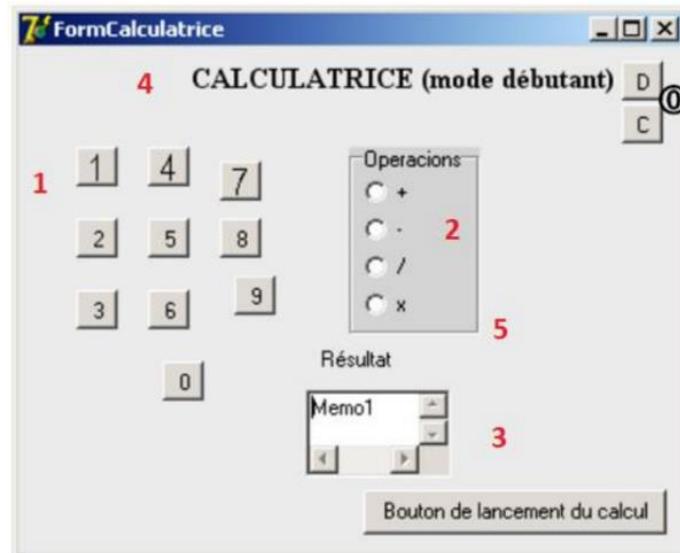
Exercise8

A : Guidage : incitation

B visibilité de l'état du système feedback

C signifiance des codes

D Protection des erreurs : Qualité des messages d'erreurs

E densité informationnelle : Brièveté

Exercise 9

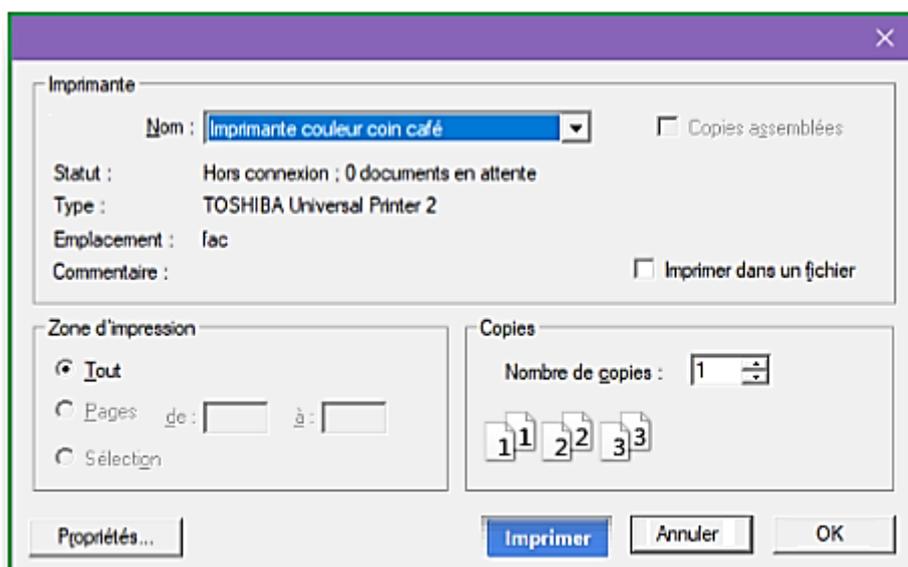1. List the components of this interface

Answer:

1. Buttons
2. Radio buttons
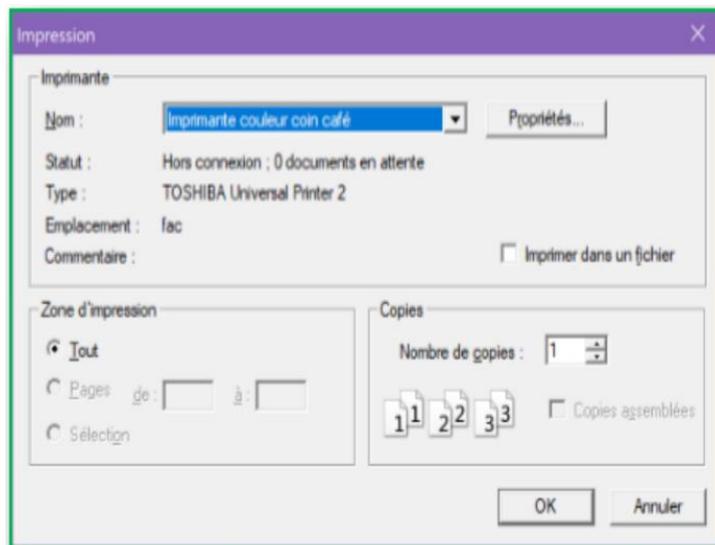3. Text area
4. Label
5. Panel (titled)

2. Describe (first line) and explain (second line) the usability flaws in the software interface above (identify and number 4 errors on the screenshot).

Error #	Error Name and Description
1	Guidance: Readability
	The layout of elements is not respected for the number buttons; the font size of the numbers is not consistent.
2	Guidance: Prompting
	The prompting is so poor that the user cannot tell where to choose between beginner or expert mode.
3	Workload: Brevity/Conciseness
	The calculation launch button has a very long label; it can be shortened, e.g., renamed to "Calculate."
4	Homogeneity/Consistency
	Inconsistent syntax is used for the two user-level selection buttons; "D" and "C" are meaningless to the user.
5	Meaningfulness of Codes and Labels
	Unclear and non-explicit abbreviations are used: "D" and "C."
6	Workload: Brevity/Conciseness
	The use of a TextArea to display the result can be avoided; an input field (a TextField would be enough).

Exercise 10

1. his is a dialog box that manages the printing of a document.
2. The various elements that make up this interface:

   A title bar, buttons, labels, radio buttons, checkboxes, a comboBox, ...
3. The points that appear erroneous in this interface.
   - No window title
   - "Assembled copy": appears in an inappropriate location; it should be grouped under "copies"
   - The placement of the "Properties" button makes no sense.
   - Redundant buttons: "Print" and "OK"
   - The order of the buttons is not respected.
4. Proposition of a new window

Exercise 11

The main benefits of using color in user interfaces
   - Answer:
     - Attract attention
     - Show organization
     - Indicate a state
     - Show relationships
     - Enable discrimination