

# User Interfaces

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# User interface

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The features of a computer system which allows the user to interact with it.

A user interface, also sometimes called a human-computer interface, comprises both hardware and software components. It handles the interaction between the user and the system.

There are different ways of interacting with computer systems which have evolved over the years.

# Types of user interface

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There are five main types of user interface:

- ❖ Command line (CLI)
- ❖ Graphical user interface (GUI)
- ❖ Menu driven (MDI)
- ❖ Form based (FBI)
- ❖ Natural language (NLI)

# Command Line Interface

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Command line interfaces are the oldest of the interfaces .

It involves the computer responding to commands typed by the operator.

This type of interface has the drawback that it requires the operator to remember a range of different commands.

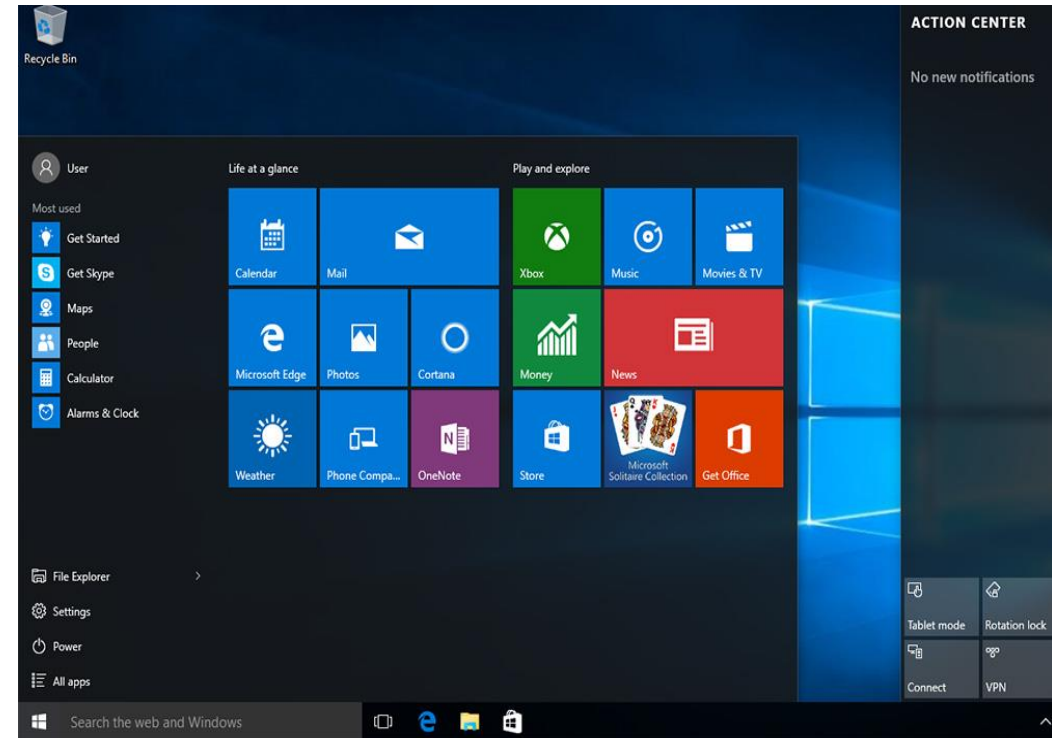
```
Enter today's date (m-d-y): 08-04-81
The IBM Personal Computer DOS
Version 1.00 (C)Copyright IBM Corp 1981

A>dir *.com
IBMBIO  COM      1920  07-23-81
IBMDOS  COM      6400  08-13-81
COMMAND COM      3231  08-04-81
FORMAT  COM      2560  08-04-81
CHKDSK  COM      1395  08-04-81
SYS     COM       896  08-04-81
DISKCOPY COM     1216  08-04-81
DISKCOMP COM     1124  08-04-81
COMP    COM      1620  08-04-81
DATE    COM       252  08-04-81
TIME    COM       250  08-04-81
MODE    COM       860  08-04-81
EDLIN   COM      2392  08-04-81
DEBUG   COM      6049  08-04-81
BASIC   COM     10880  08-04-81
BASICA  COM     16256  08-04-81

A>_
```

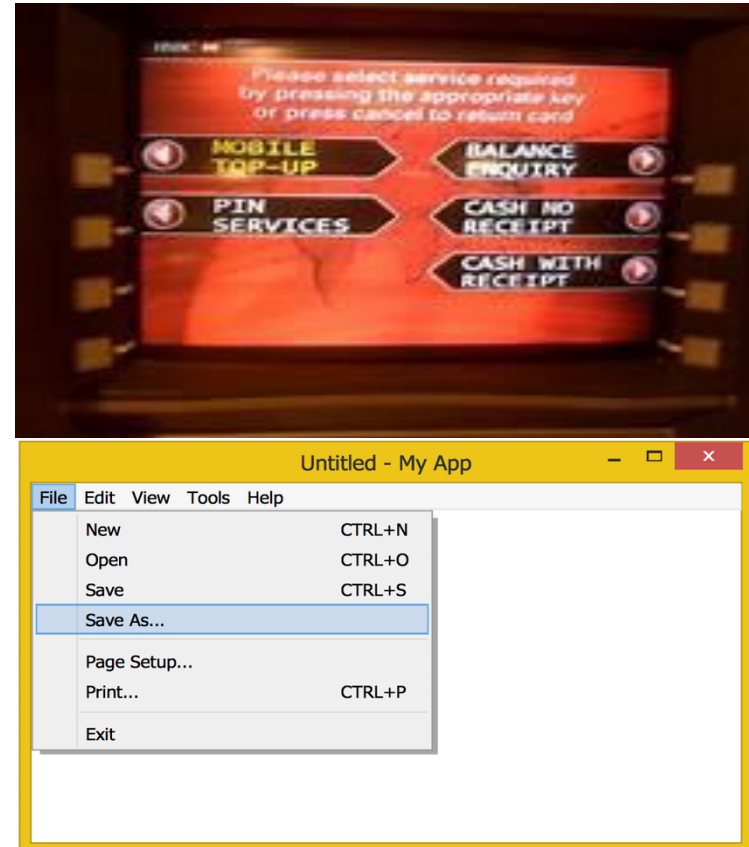
# Graphical user interfaces (GUI)

- Graphical user interfaces (GUI) are also referred to as WIMP because they use *Windows, Icons, Menus and Pointers*
- Pointing devices (such as a mouse, touchpad or trackball) are used to control a pointer on the screen which then interacts with other on-screen elements.
- It allows the user to interact with devices through graphical icons and visual indicators



# Menu Driven

- A menu driven interface is commonly used on cash machines (also known as automated teller machines (ATM's), ticket machines and information kiosks (for example in a museum).
- They provide a simple and easy to use interface comprised of a series of menus and sub-menus which the user accesses by pressing buttons, often on a touch-screen device.



# Form Based

A form-based interface uses text-boxes, drop-down menus, text areas, check boxes, radio boxes and buttons to create an electronic form which a user completes in order to enter data into a system.

This is commonly used on websites to gather data from a user, or in call centres to allow operators to quickly enter information gathered over the phone.

The image displays a collection of form components arranged in two columns. The left column, titled 'Input', contains several fields: a 'Texte' text box, a 'Number' text box, a 'Date' text box with a red question mark icon, and a 'Password' text box. Below these are three labels: 'a label', 'ANOTHER LABEL', and 'Yet another label'. A 'combo suggest' dropdown menu is shown with 'F' in the input field and a list of suggestions including 'Finland' and 'France'. Below the dropdown are two checkboxes: 'checkbox2' (checked) and 'checkbox3' (unchecked). The 'Code/labelle' section includes a 'code lib' text box with a red question mark icon and a 'code' text box with a red question mark icon. The 'Button' section at the bottom features two buttons: 'Rechercher' and 'Disable button'. The right column, titled 'TEXTAREA', contains a 'Texte' text area and a 'Radio' section with two options: 'Drag and drop frames' (selected) and 'Fixe frames'.

# Natural language

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- A natural language interface is a spoken interface where the user interacts with the computer by talking to it.
- An Example of this type of interface is Voice Recognition
- This is the kind of interface used by the popular [iPhone](#) application called [Siri](#) and [Cortana](#) in [Windows](#).

