

Introduction: You will be making your GCSE Options choices very soon and studying this unit will give you a chance to see what one of the practical coursework units is like for the BTEC Digital Information Technology course

Usability	A device is only as good as how easy it is to use for a user. We try to pick devices that are easy to use
Sans Serif	Sans-serif means “without serif” <ul style="list-style-type: none">• These fonts are easier to read on screens and end to look more modern• Sans-serif fonts are almost always used for body text
Serif	Serifs are small markings at the start and end of strokes in letters Serif fonts can make text easier to read on paper
House Style	When user interfaces are developed, they need to fit in with an organisation’s house style Companies and organisations will have a set of colours which they expect to be used. Similar colours and fonts all the way through
Consistency	Similar to house style, consistency is where the same sorts of fonts, font size, style and colour scheme is used in all pages and items of a company, whether its app or website or a leaflet
User interface	The Operating System provides a user interface (UI), an environment for the user to interact with the machine.
Language	The language used for children uses easier words such as: paint, bright, ready The language used for adults uses harder words such as: luxurious, emulsion, suitable
WIMP	Windows, Icons, Menus and Pointers, always used for laptops and PC interface such as Windows and OS
Command Line Interface	An OS also provides a method of interaction that is non-graphical, called the command line interface (CLI). This is a text-only service with feedback from the OS appearing in text.


- Key Learning that will take place in this unit**
- You will learn good design concepts such as house style and the need to cater for the needs of a target audience
 - You will have developed an understanding of what a User Interface is and be able to identify interfaces in every day use of technology
 - You will have developed core technical skills such as hyperlinking buttons to create a basic interface
 - Core knowledge learnt for KS4
 - Future careers such as UX Developer and graphic design will rely on an understanding of design features and good practices developed in this unit.
 - The ability to understand user interface and good design concepts.
 - Powerpoint skills are developed further in the ICT course at KS4

User Interface

The **Operating System** provides a user interface (UI), an environment for the user to interact with the machine. The UI is either graphical or text-based. This user interface allows for all the components of a computer to communicate with each other (software and hardware)

Types of Interfaces

Graphical User Interface (GUI)
Command Line Interface (CLI)
Menu Based
Text Based
Voice Activated





An operating system (or 'OS') controls the general operation of a computer, and provides an easy way for us to interact with computers and run applications.

TEST YOURSELF

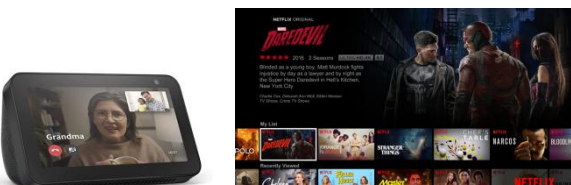
- 1 Explain the difference between a GUI and a CLI interface.
- 2 What does GUI stand for?
- 3 What type of interface does a smart phone have?
- 4 List some devices that have voice recognition interface.
- 5 What does a 'consistent house style' mean?
- 6 What is the difference between Sans Serif font and a Serif Font?
- 7 What are the advantages of using a CLI interface?
- 8 What is the purpose of an Operating System?

AT HOME. (Parents/carers may be able to help with this.)

Have a look at all the devices that you have at home and try to identify what type of user interface it is.

Typical household items may include:

Smart TV, Alexa (Echo/Firestick), Games Console, Smart Phone, Washing Machines etc

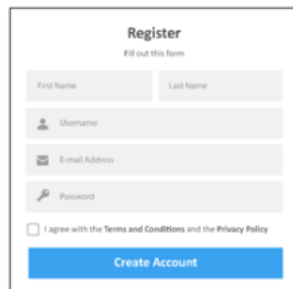
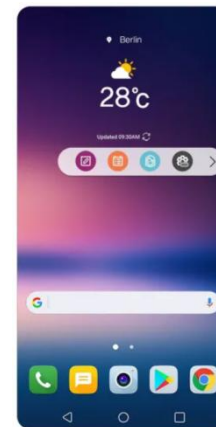
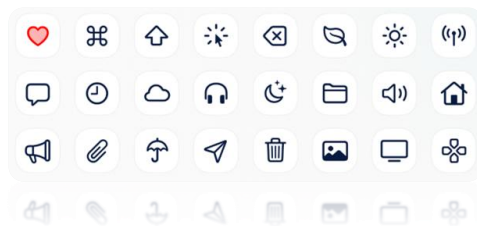


Graphical user interface (GUI)

The OS on most computers and **smartphones** provides an environment with tiles, icons and/or menus. This type of interface is called the graphical user interface (GUI) because the user interacts with images through a mouse, keyboard or touchscreen.

Menu/s and Forms

Forms are used within software programs, apps and webpages
Forms include text boxes, buttons, radio buttons, check boxes, sliders and labels
Menu interfaces allow an item to be selected from a number of options

WIMP

These are used in Laptop and PCs where there are **Windows, Icons, Menus and Pointers**

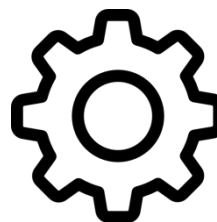


Command line interface (CLI)

An OS also provides a method of interaction that is non-graphical, called the command line interface (CLI). This is a text-only service with feedback from the OS appearing in text. Using a CLI requires knowledge of the commands available on a particular machine. Advantages of using the command line include:

- a **faster** way to get tasks done
- it is **more flexible** than a GUI
- it uses **less memory**

Some games, such as Minecraft, also make use of a command line tool which allows the user to bypass the main interface and alter the game's mechanics or environment.



Universal Design

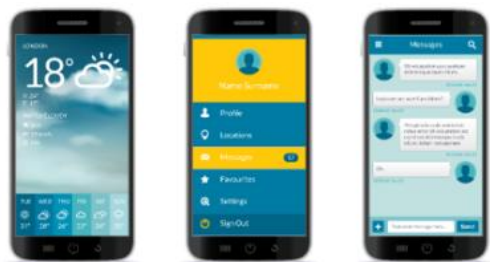
A lot of designers will use the same icons or very similar icons. This makes devices and interfaces a lot easier to use and switch between for the user. For example, a COG is universally used for 'Settings'

Forms and Reports: In this unit you will learn how to create forms that can be used to enter, edit, and delete data. You will also create a form using a query. You will learn to create reports from your database tables and a query, and you will explore why these might feature in a company's branding and use of house-style. You will have the opportunity to customise your own forms and reports to make them more user-friendly.

Consistency

It is important that different screens, forms or webpages are all consistent with others

This makes the interface easier to use as objects will all appear in the same style



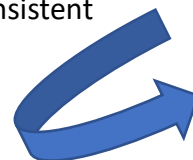
Language

The language used for children uses easier words such as: paint, bright, ready

The language used for adults uses harder words such as: luxurious, emulsion, suitable

House Style

When user interfaces are developed, they need to fit in with an organisation's house style. Companies and organisations will have a set of colours which they expect to be used. This is known as a colour palette. There will be a limited set of colours to choose from. Look at how the colours in the app are always consistent.



Typography

Serifs are small markings at the start and end of strokes in letters

- **Serif fonts** can make text easier to read on paper

Sans-serif means "without serif"

- These fonts are easier to read on screens and end to look more modern
- Sans-serif fonts are almost always used for body text

Serif
 Sans-serif

Useful links:

<https://www.Britannica.com/technology/databases>

<https://edu.gcfglobal.org/en/access2013/creatingforms/1/>

<https://www.khanacademy.org/computing/computer-programming/sql/sql-basics/v/welcome-to-sql>

<https://www.bbc.co.uk/bitesize/guides/zswnb9q/revision/3>