Operating Systems

TASK: Independently for 10 mins complete the relevant row before moving to another seat. Place a link that you have found useful in the last column.

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| **Class Member** | **10+ Facts about Operating Systems**  **(Characteristics, features, roles, factors effecting choice i.e. power, size, cost etc)** | [**Resource**](https://computer.howstuffworks.com/operating-system.htm)  **Click the Above** |
| **Member 1**  **(Real Time OS)** | Intended to serve real time apps that process data as it comes in.  more power demanding as it is real time, will cost more and be much larger. | <https://en.wikipedia.org/wiki/Real-time_operating_system#Design_philosophies> |
| **Member 2**  **(Single User Operating System)** | Only you can use it. Size of it is smaller.  Operates smaller apps.  Used in mobile phones.  Power consumptions will be smaller.;  The cost will also be smaller. |  |
| **Member 3**  **(Multi user operating system)** | Allows many different users to take advantage of the computer’s resources simultaneously. The operating system must make sure the requirements of the various users are balanced and that each of the programs that’re being used has sufficient and separate resources so that a problem with one user doesn’t affect the entire community of users. |  |
| **Member 1**  (**Identify** different types of OS, **explain** where they work and **justify** the need for them to work there) | Why is there a need to have different operating system?  Suited for different things. Like servers or home pc’s.  Dependant on use (purpose) and hardware. | |

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| Function | Role Description |
| Program Execution | Running a program, executing a set of instructions designated by a program |
| Interrupts | An input signal to the cpu that indicates an event needs immediate attention so it can be fixed quickly, it stops the currently executing code because there is a problem with it |
| Modes (user Switching) | Transition from user mode to kernel mode |
| Memory Management | Process of controlling and coordinating computer memory and assigning portions called blocks to various running programs to optimize overall system performance. |
| Multitasking | Doing 2 or more task at once |
| Disc Access | average of the time it takes to position the read/write head over the requested track |
| File System | controls how data is stored and retrieved |
| Device Driver | operates or controls a particular type of device that is attached to a computer |

Kernel - device drivers are used to extend the kernel of the operating system to allow it to work with any and other devices

Menu driven interface - an interface consisting of a series of screens which are navigated by choosing options from lists

Benefits – user friendly, not complicated, no need to remember complex commands, not hardware intensive

Drawbacks – not aesthetically pleasing, time consuming to go through lots of different lists and dropdown menu’s just to find

NOS – To whom it may concern,

I believe that you should use the client server nos for your network structure as it will be much more efficient as instead of wasting time for getting info from one computer to another a server hub will exist to carry all of the files and anyone who is connected to the server will be able to access it if they have the right permissions.

Whereas the peer to peer network will take a long time and if one computer is turned off the others will not be able to get its data but in the client server network this isn’t a problem as all the data is on the server.

CCleaner – cleans up trash and unwanted files

Antivirus – Stops viruses and protects your computer from malware and files that can harm your computer or compromise your privacy

Disk defragmenter – defrags your disk to make it run faster

Anti spamware – blocks and prevents spamware from being harmful