

# OPERATING SYSTEMS AND APPLICATION SYSTEMS

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*2.1.6 - 2.1.8*

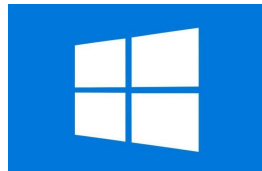


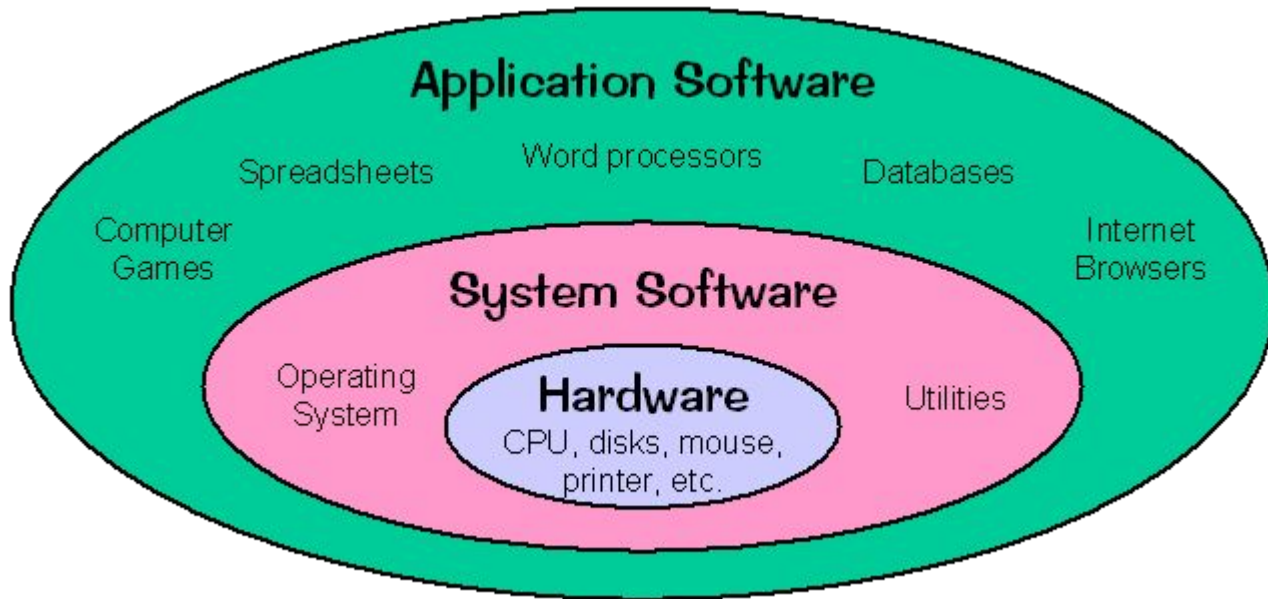
# OPERATING SYSTEMS

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## 2.1.6 Describe the main functions of an operating system.

- The operating system acts as an interface between the hardware and the programs requesting I/O. It is the most fundamental of all system software programs.
- Two types of software exist, system software and application software.





System software vs application software

# OPERATING SYSTEMS

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Responsibilities of the OS include:

- Hiding the complexities of hardware from the user through a GUI
- Managing between the hardware resources, such as processors, memory, data storage and I/O devices
- Handling "interrupts" generated by the I/O controllers
- Sharing of I/O between many programs using the CPU
- File handling
- Security

# APPLICATION SOFTWARE

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## 2.1.7 Outline the use of a range of application software.

- Application software is often used in the following areas:
- Office applications
- Database management systems
- Integrated development environments (IDEs)
- Online communication such as email and web browsing
- Computer-aided design (CAD)
- Graphic design, movie and music editing



Image source: <https://www.slashgear.com/microsoft-office-2019-release-revealed-for-the-cloud-averse-26501687/>

Image source: [https://en.wikipedia.org/wiki/Adobe\\_Creative\\_Suite](https://en.wikipedia.org/wiki/Adobe_Creative_Suite)

# APPLICATION SOFTWARE

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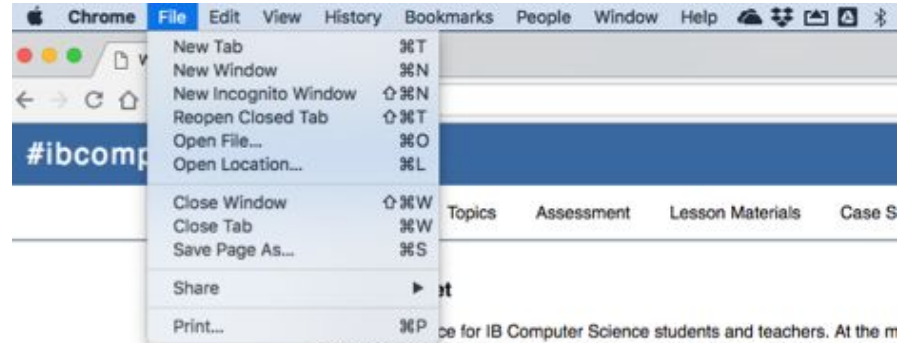
## 2.1.8 Identify common features of applications.

Common features can often be seen across a variety of application software, especially in the menu systems. Features may include the following toolbars, menus, dialogue, boxes, graphical user interface (GUI) components. Having common features across multiple applications improves the usability of a wide range of users.

Whereas some features are provided by the application software, if the an application needs to interact with the system in anyway, for example when saving a file or printing, it needs to call upon the services of system software to carry out such tasks.

Common menu systems can be found across multiple applications.

Having common features across multiple applications improves the usability of a wide range of users.



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cover the core topics and the object-oriented programming (OOP) option of I

New resources will be added to this website over time.

There is an unofficial IB subreddit where you can discuss IB related topics.



#### Statistics

Number of students who take IB Computer Science worldwide (SL & HL con

- May 2017: 3146 students
- May 2016: 2571 students
- May 2015: 1976 students
- May 2014: 1668 students

Average worldwide grade(s) in 2017:

- Standard Level (SL): 3.79
- Higher Level (HL): 4.17

↓ Download all the statistical bulletins [here](#)