

Unit 3

Computer Software

3.1 Software and its characteristics

3.2 System Software (Operating Systems and Utility software)

3.3 Application Software (Word Processors, Spreadsheets, Business Applications)

3.4 Application of Software Across Industries

3.5 Enterprise Software:

- *ERP systems (Application of SAP, Oracle).*
- *CRM software (Salesforce).*
- *Supply Chain Management software.*

3.6 Web Based Software Applications:

- *E-commerce platforms*
- *Social media platforms.*

3.7 Mobile Applications:

- *Android, iOS, Mobile app and their use*

3.8 Custom vs. Off-the-Shelf Software:

3.9 Off-the-shelf solutions for general use (e.g., Microsoft Office, Open Office).

3.10 Choosing the Right Software for Business

3.11 Software license types and legal use of software

3.1 Software and its characteristics

Definition:

Software is a set of instructions, data, or programs used to operate computers and execute specific tasks. It can be broadly categorized into system software and application software.

Characteristics of Software

1. Intangible:

- Unlike hardware, software cannot be physically touched.
- Example: A mobile app downloaded online.

2. Customizable:

- Software can be tailored to meet specific needs.
- Example: Custom ERP solutions for businesses.

3. Development Process:

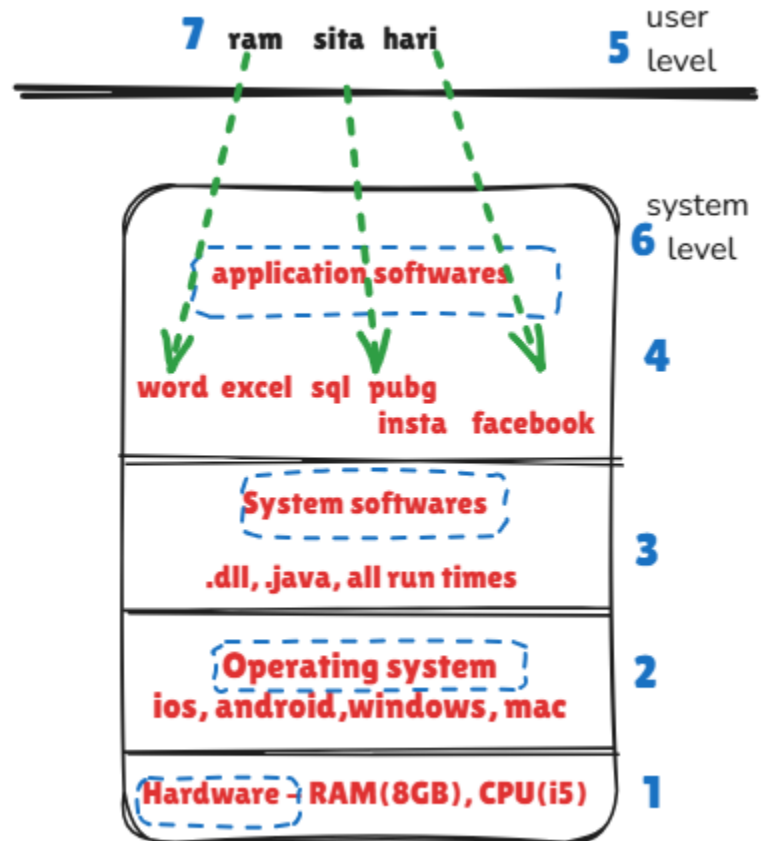
- Created through systematic methodologies like SDLC (Software Development Life Cycle).
- Example: Agile development for quick delivery.

4. Complexity:

- High complexity due to interdependent modules.
- Example: An operating system managing various hardware and applications.

5. Maintenance:

- Requires regular updates and bug fixes to remain functional.



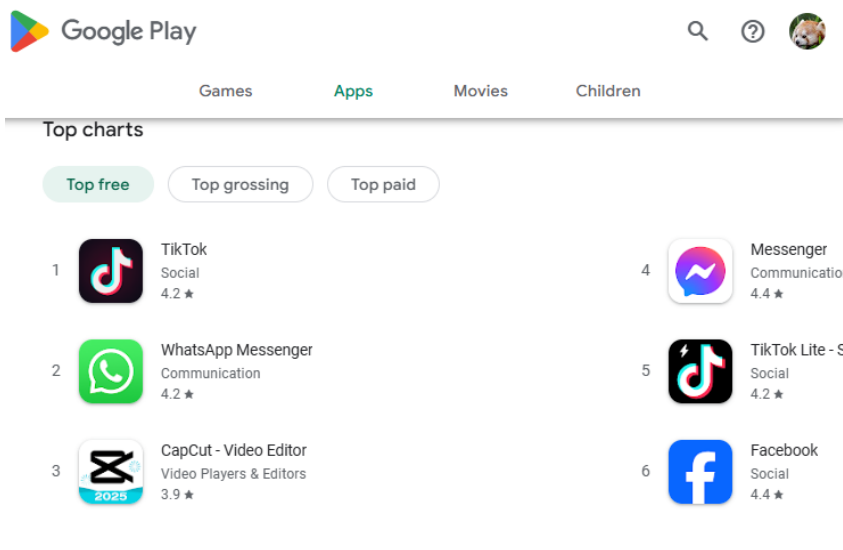
- Example: Antivirus software updating virus definitions.

6. Scalability:

- Designed to handle growth in user base or data size.
- Example: Cloud applications scaling as users increase.

7. Dependence on Hardware:

- Requires compatible hardware to function.
1. Example: Games needing specific graphic card configurations.



3.2 System Software (Operating Systems and Utility software)

Definition:

System software provides the platform and environment for other software to function, managing hardware and basic system operations.



1. Operating Systems (OS)

Role:

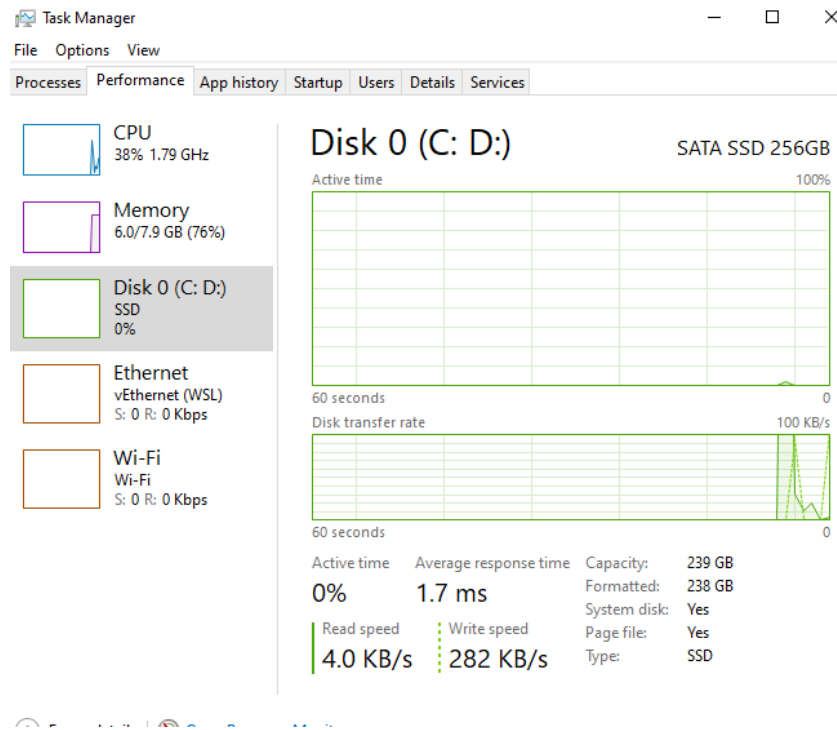
- Acts as an interface between users and hardware.
- Manages hardware resources and provides essential services.

Examples:

- Windows, macOS, Linux, Android.

Key Functions:

1. **Process Management:** Allocates CPU time to various tasks.
 - Example: Running multiple applications simultaneously.
2. **Memory Management:** Controls RAM allocation.
 - Example: Avoiding memory overload during multitasking.
3. **File System Management:** Organizes files into directories.
 - Example: Saving and retrieving documents.
4. **Device Management:** Handles input/output devices.
 - Example: Printer and mouse operations.



2. Utility Software

Role:

- Provides specialized tools for system maintenance and performance enhancement.

Examples:

- Antivirus software, Disk Cleanup, Backup tools.

Key Functions:

1. **System Security:** Protects from malware.
 - Example: Norton Antivirus.
2. **Disk Management:** Optimizes storage.
 - Example: Defragmentation tools.
3. **Data Backup:** Creates data copies to prevent loss.
 - Example: Acronis True Image.

4. **Performance Monitoring:** Tracks system health.

- Example: Task Manager in Windows.

3.3 Application Software (Word Processors, Spreadsheets, Business Applications)

3.4 Application of Software Across Industries

3.5 Enterprise Software:

- **ERP systems (Application of SAP, Oracle).**
- **CRM software (Salesforce).**
- **Supply Chain Management software.**

3.6 Web Based Software Applications:

- **E-commerce platforms**
- **Social media platforms.**

3.7 Mobile Applications:

- **Android, iOS, Mobile app and their use**

3.8 Custom vs. Off-the-Shelf Software:

3.9 Off-the-shelf solutions for general use (e.g., Microsoft Office, Open Office).

3.10 Choosing the Right Software for Business

3.11 Software license types and legal use of software



Fill in the Blanks

Multiple Choice Questions (MCQ)

Short Questions

Comprehensive Questions

Answers

Fill in the Blanks

Multiple Choice Questions (MCQ)