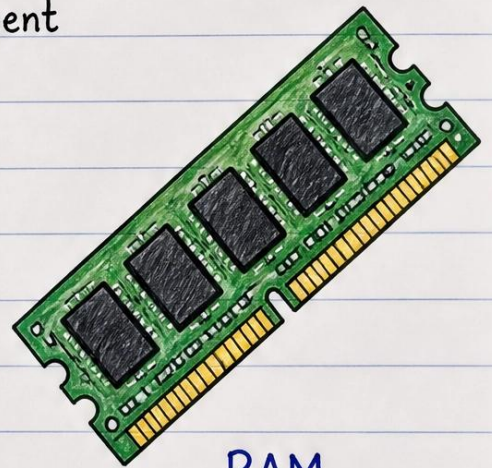


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Computer Fundamental Notes

Unit 5: Memory and Storage - Primary Memory

Computer mein Memory ek vital component hai jo data aur instructions ko store karta hai. Memory ko mainly do categories mein divide kiya gaya hai: Primary Memory aur Secondary Memory.



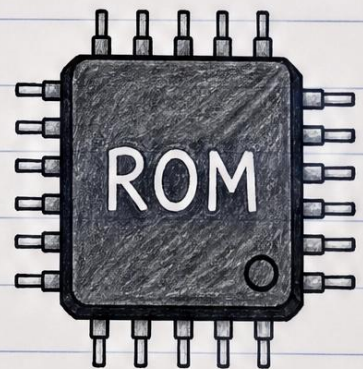
RAM

1. Primary Memory (Main Memory):

Yeh computer ki internal memory hoti hai jo CPU ke sath directly communicate karti hai.

2. RAM (Random Access Memory):

Yeh ek volatile memory hai, yaani jab computer band hota hai toh data delete ho jata hai.



ROM

3. ROM (Read Only Memory):

Yeh ek non-volatile memory hai jisme permanent instructions stored hote hain.

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Computer Fundamental Notes

Unit 5: Memory and Storage - ROM Variations

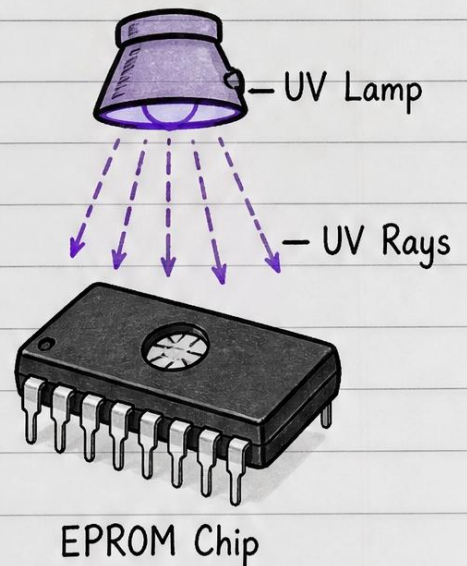
ROM ke alag-alag advanced types hote hain:

1. PROM (Programmable Read-Only Memory):

Is memory ko user sirf ek baar program kar sakta hai.

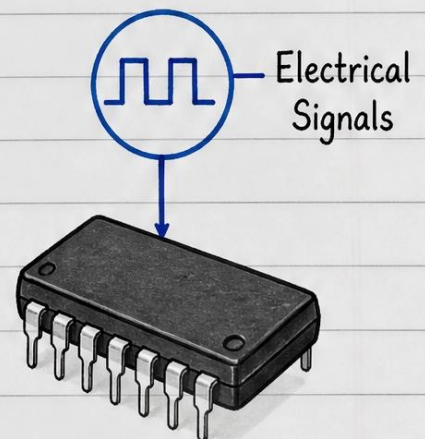
2. EPROM (Erasable Programmable Read-Only Memory):

Iske data ko UV rays ke through erase karke dubara program kiya ja sakta hai.



3. EEPROM (Electrically Erasable Programmable Read-Only Memory):

Isme stored data ko electrical signals ke through erase aur reprogram kiya ja sakta hai.

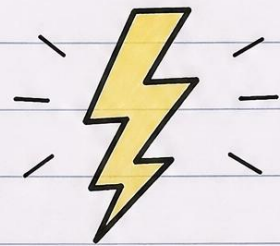


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Computer Fundamental Notes

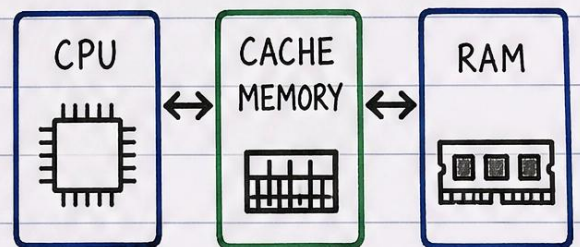
Unit 5: Memory and Storage - Cache & Virtual Memory

System ki speed badhane ke liye special memories use hoti hain:



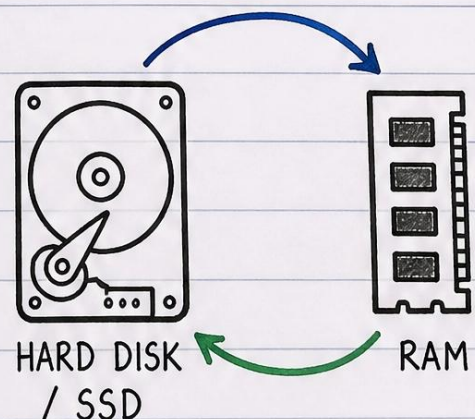
1. Cache Memory:

Yeh ek extremely fast semiconductor memory hoti hai jo CPU aur RAM ke beech mein hoti hai. Yeh frequently used data ko store karti hai taaki processing fast ho sake.



2. Virtual Memory:

Jab RAM full ho jati hai, tab OS Hard Disk ya SSD ke ek portion ko temporary RAM ki tarah use karta hai. Ise Virtual Memory kehte hain.



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Computer Fundamental Notes

Unit 5: Memory and Storage - Hard Disk & SSD

→ Secondary Memory non-volatile hoti hai aur long-term storage ke liye use hoti hai:

1. Hard Disk Drive (HDD):

- Yeh traditional magnetic storage device hai jisme rotating platters hote hain.
- Yeh high capacity storage provide karta hai.

1. Hard Disk Drive (HDD)



2. Solid State Drive (SSD):

- Yeh modern storage device hai jo Flash Memory par based hota hai.
- Isme koi moving parts nahi hote, isliye yeh HDD se bohot fast aur reliable hota hai.

2. Solid State Drive (SSD)



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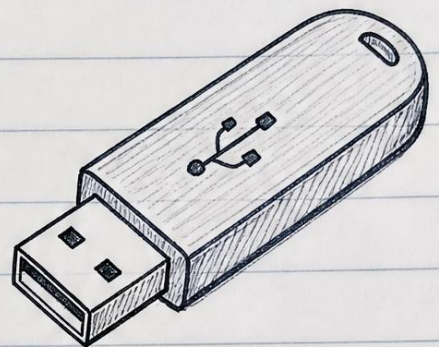
Computer Fundamental Notes

Unit 5: Memory and Storage - Portable Media

Data transfer ke liye portable storage devices use hote hain:

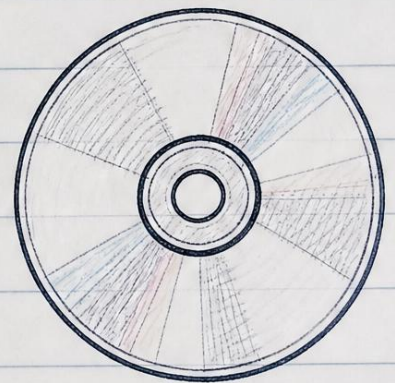
1. Pen Drive (USB Flash Drive):

Yeh ek small, lightweight flash memory device hai jo USB port mein lagti hai.



2. CD (Compact Disc):

Yeh optical storage device hai jo 700MB tak data store karta hai.



3. DVD (Digital Versatile Disc):

Isme 4.7GB ya zyada data store hota hai.

4. Blu-ray Disc:

Yeh high-definition videos ke liye 25GB-50GB tak data store karta hai.

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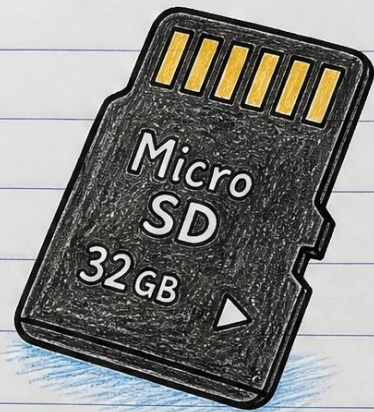
Computer Fundamental Notes

Unit 5: Memory and Storage - Memory Card & Cloud

Modern compact aur online storage options:

1. Memory Card:

Smartphones aur cameras mein use hone wali tiny flash storage chip (jaise MicroSD card).



2. Cloud Storage:

Internet-based storage jahan data remote servers par store hota hai (jaise Google Drive). Ise kahin se bhi access kiya ja sakta hai.

