

CS251-

System Programming

Processor

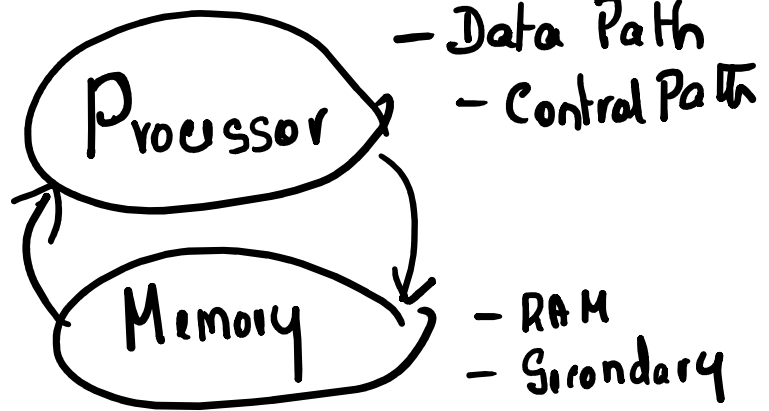
Memory

I/O



COA

CPU



Modern Computers → Capabilities

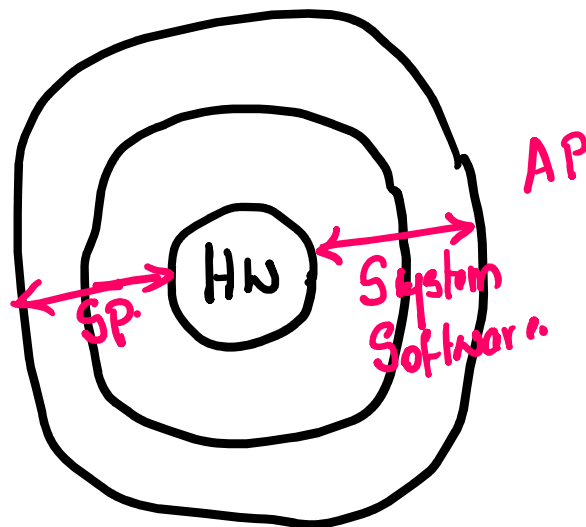
Fast Processors
Large memory.
I/O
Network support

* Instructing → Machine Language.

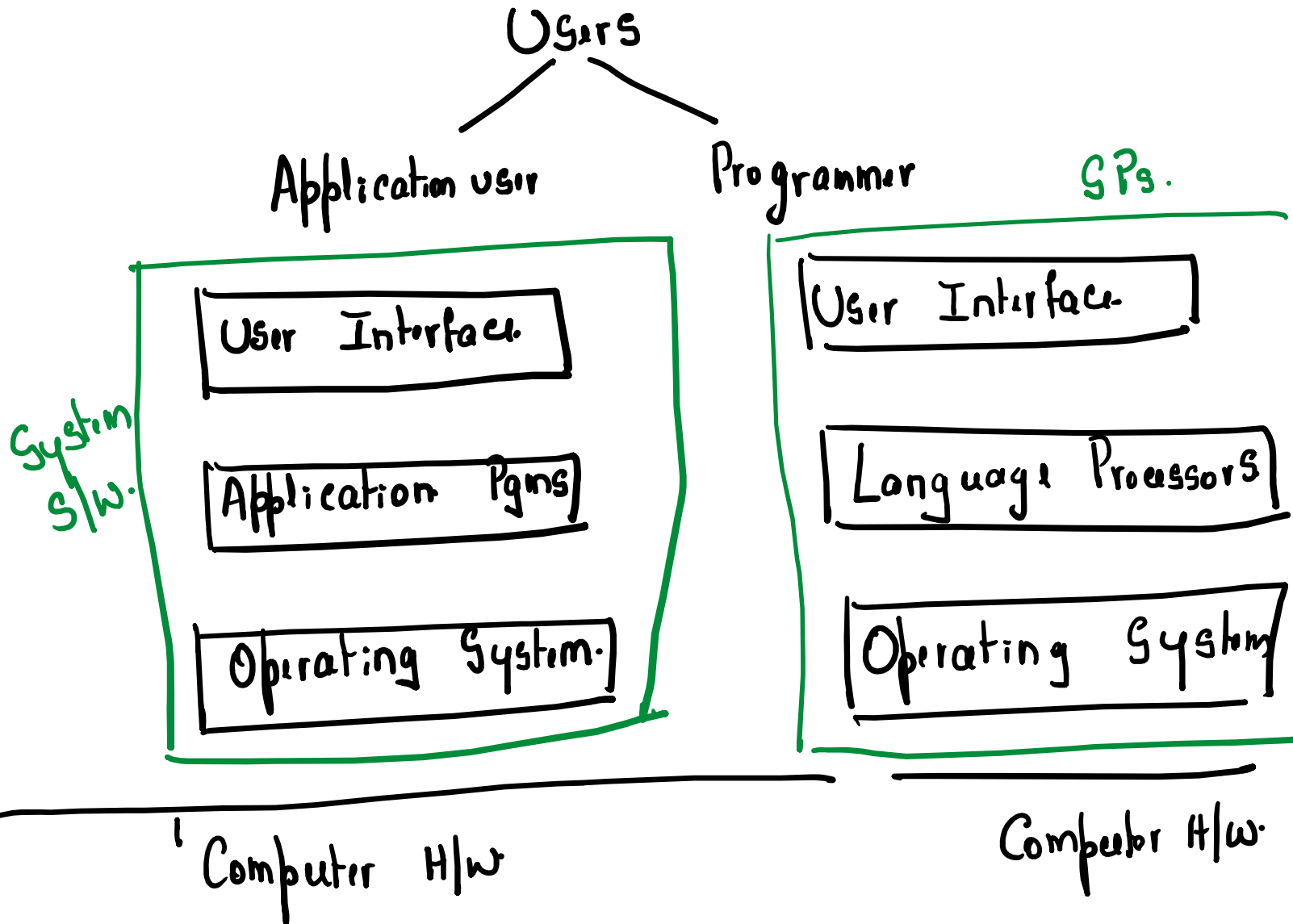
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System Software

GAP
Expectation



- ① Translate the need of users \rightarrow ML
- ② Manage the resources



Goals

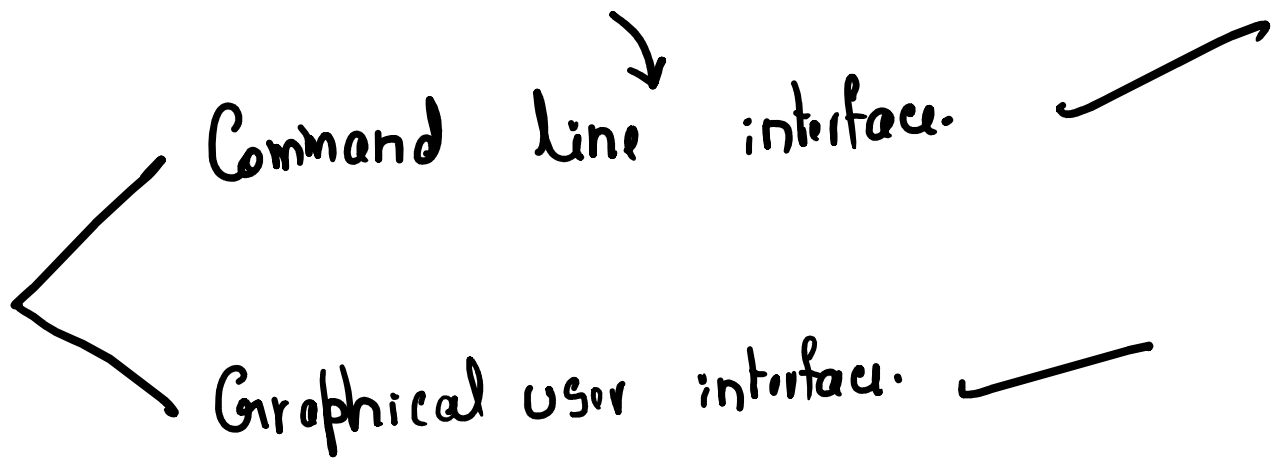
- ① User Convenience.
- ②. Efficient use of resources
- ③. Non-interference.

① User Convenience.

— Calculations - Nos.

— HLL

→ Better services ↑



② Efficient use.

— Resources

— Memory

— Processor

— Disks

⋮

③ Non-interference

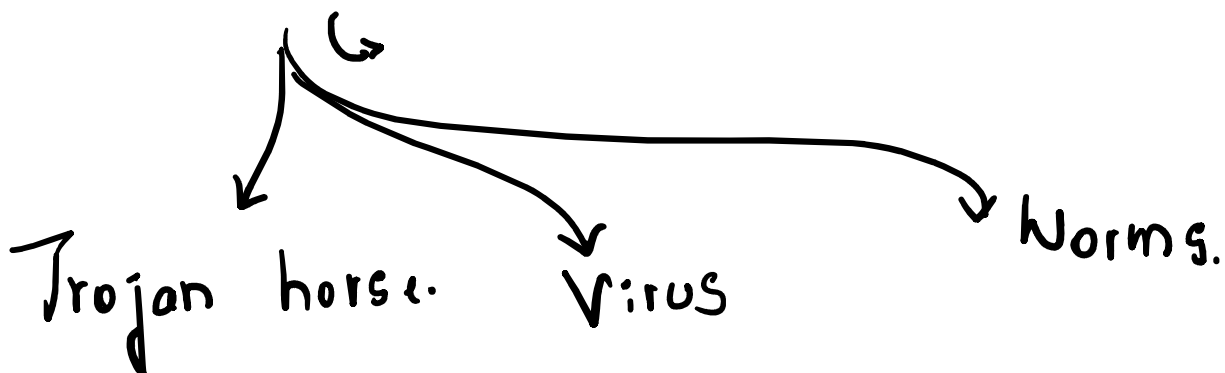
- Security function.
- Protective function.

— Classical stand-alone environments

— Authentication — PW

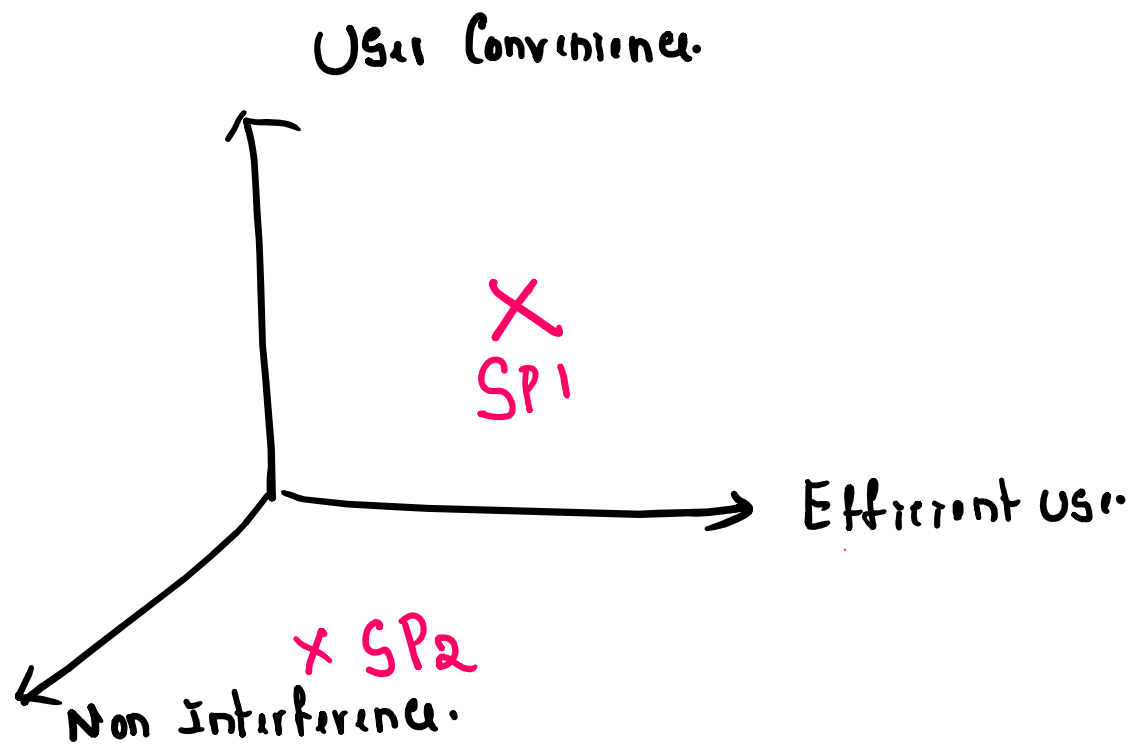
— Computers — connected to Internet.

Security Threats



OS → Various means

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SP → (A) (B)

— Unique answer.

↓
Factor S → Answer the question.

①. Program Development and Production Environment