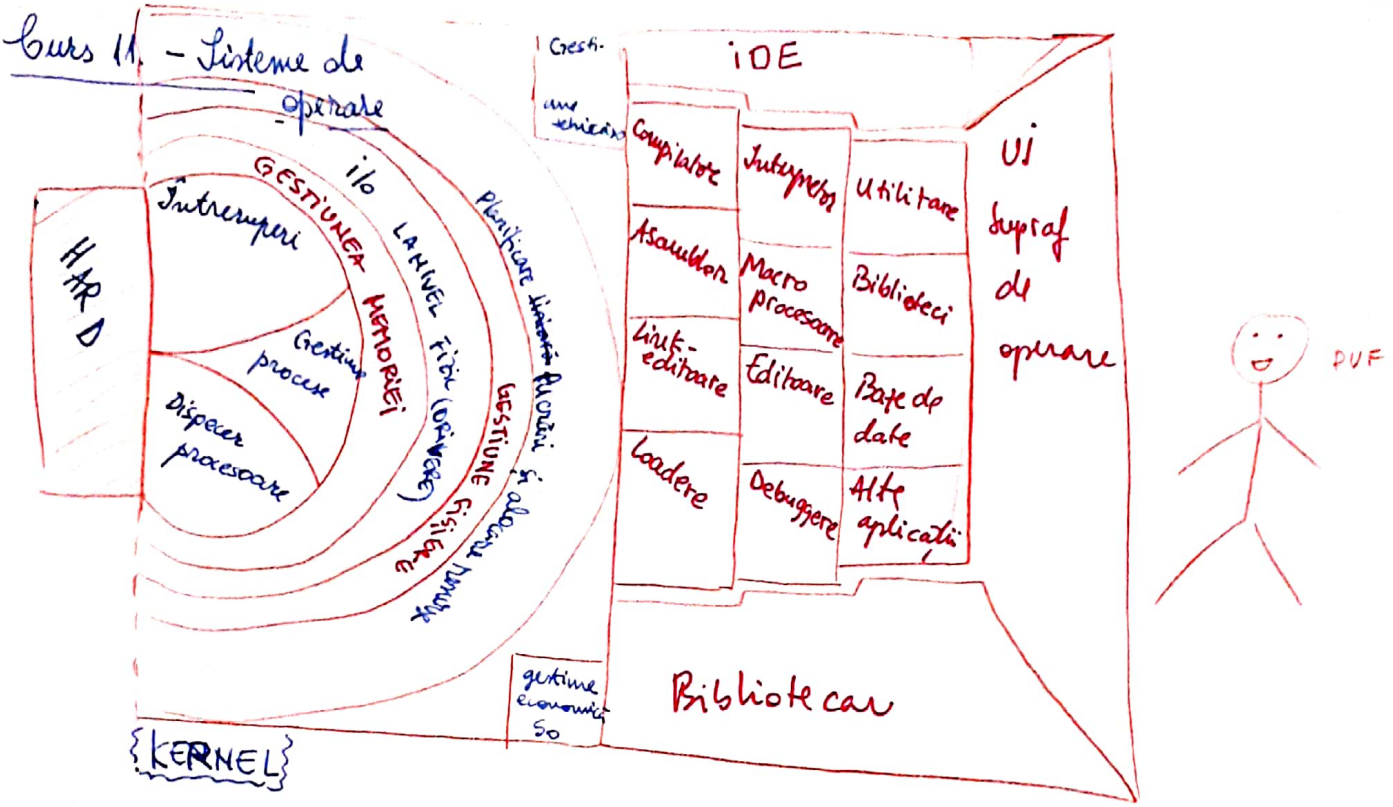
16.05.2019

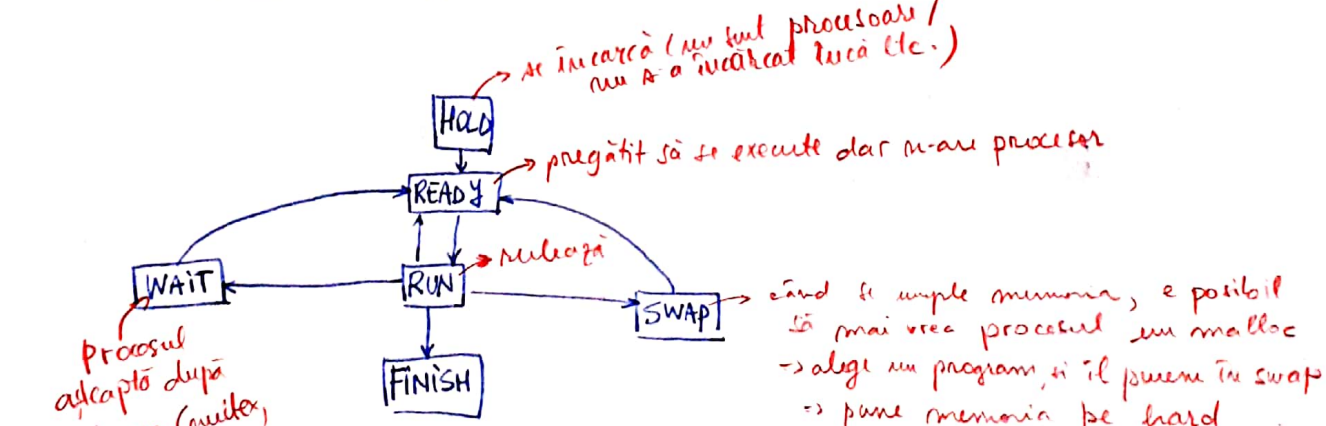
Curs 11 - Sisteme de operare



→ read-write lock { → mutex, → cond, → int } struct

În loc de un lock pt read & write
→ lock de read
lock de write

Stările unui proces (simplificat)



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Semafor

- format
  - valoare v
  - coadă q
  - două operații: — P — wait, ~~remove~~ reservă, lock, --
    — V — post, elimină, unlock, ++

```
-P- (executat de A)
  v(s) = v(s) - 1;
  if (v(s) < 0) {
        stare(A) = WAIT
        q(s) ← A
  }     dă control la dispecer
  else {
        dă controlul lui A
  }
```

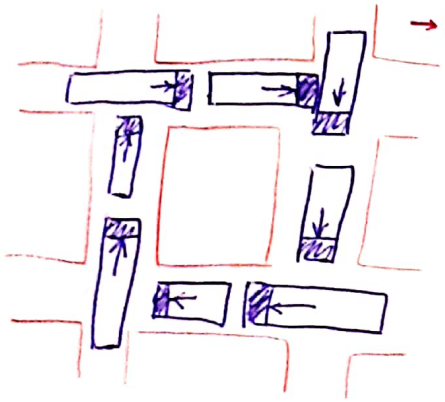
```
-V- (executată de A)
  v(s) = v(s) + 1
  if (v(s) <= 0) {
        q(s) → B
        stare(B) = READY
        dă controlul la dispecer
  }
  else {
        dă controlul lui A
  }
```

→ bibliotecă de threaduri de utilizator (FIBRE)

get context	(apeluri sistem)
swap context	planifică semnal periodic
signal	
vtalarm	

↓ WORKER POOL FOR THREADS

DEADLOCK



→ DEADLOCK

T1	T2
lock (a)	lock (b)
lock (b)	lock (a)
unlock (b)	unlock (a)
unlock (a)	unlock (b)

→ DEADLOCK

DEADLOCK

lock (a)	lock (b)	lock (c)
lock (b)	lock (c)	lock (a)

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