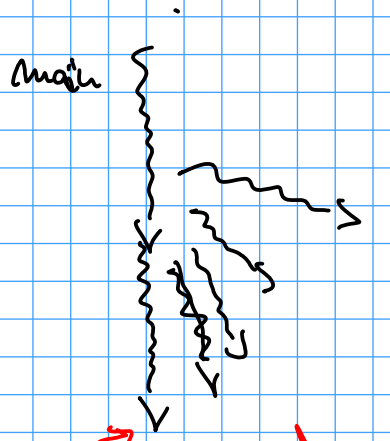
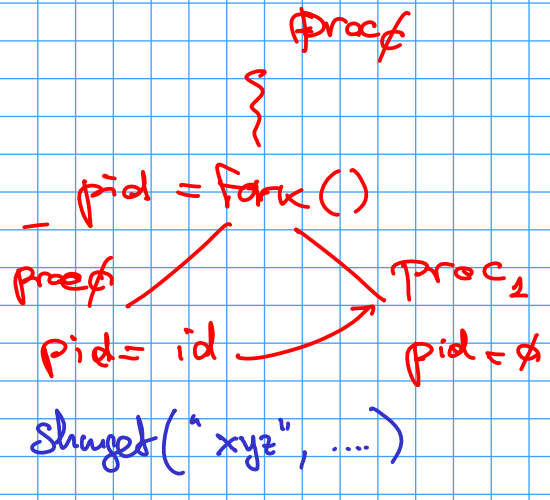
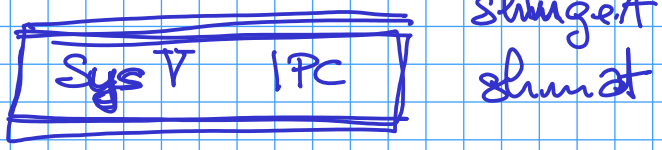
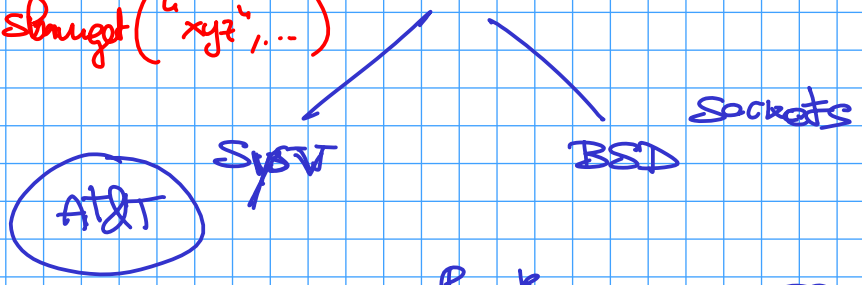
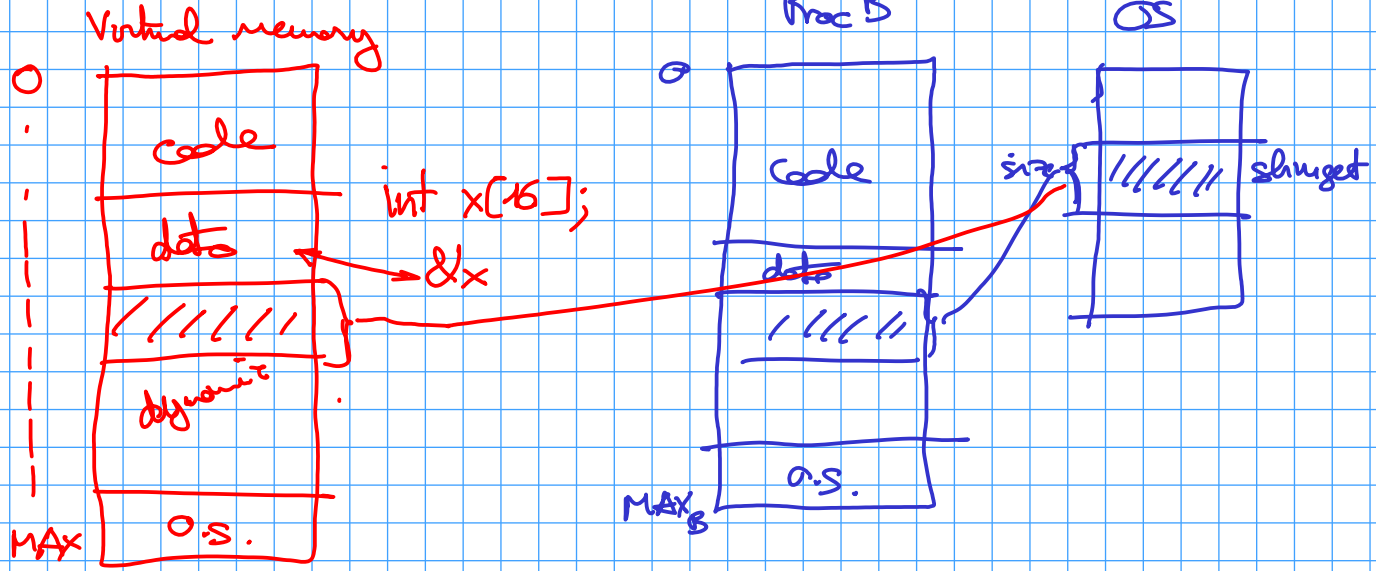



```
#include <iostream>
#include <thread>
#include <vector>

using namespace std;

void body(int n) {
 for(int i=0; i<n; i++)
   cout << "This is thread " << n << endl;
 return;
}

int main(int argc, char * argv[]) {

 int n = atoi(argv[1]);   // segv if not present ...

 vector<thread> t;

 for(int i=0; i<n; i++)
   t.push_back(thread(body,i));

 return(0);
}
```







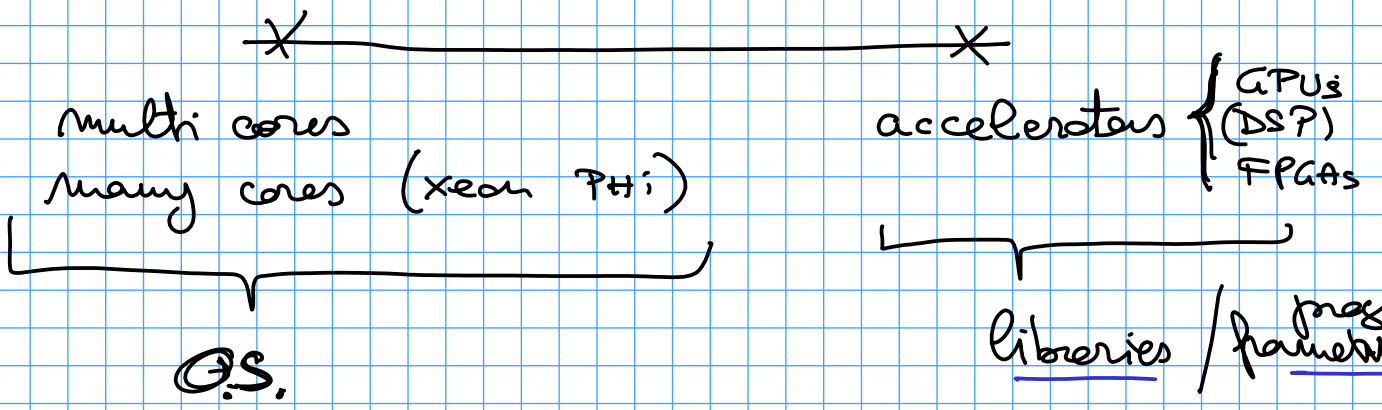


Sys V IPC

shmget
shmat
shmdt

semget
P()
V()

msgget
{ send
receive



Sporning a computation on a CPU

ACC

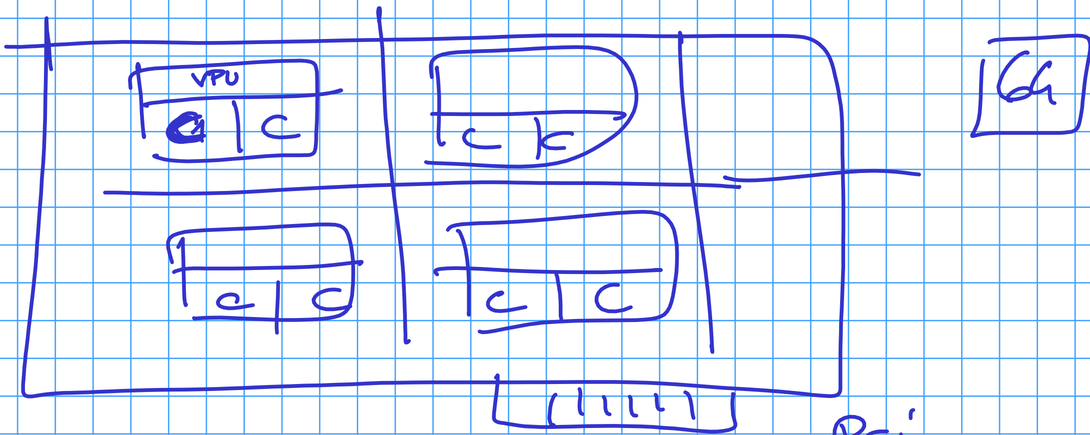
cudaMalloc
memcopy
<< x, y, z >> fun

- allocate memory on device
- move input data to device
- start a comp. on the device
- move back results from device to CPU memory

```
float sq (float x) { return x*x; }

(float* v) {  int i = .... myIndex
              v[i] = v[i] * v[i]; }
```

Phi

intel




```
int main( ){
  for(int i=0; i<n; i++){
    #pragma offload (mic)
    {
      ...
    }
  }
}
```