stack frames

```
int foo()
{
    int i;
    unsigned u;
    .
    .
    .
}
```

lifetime

factorial with caching

global

lifetime → as long as program is running

App 1

App 2

App 3

heap

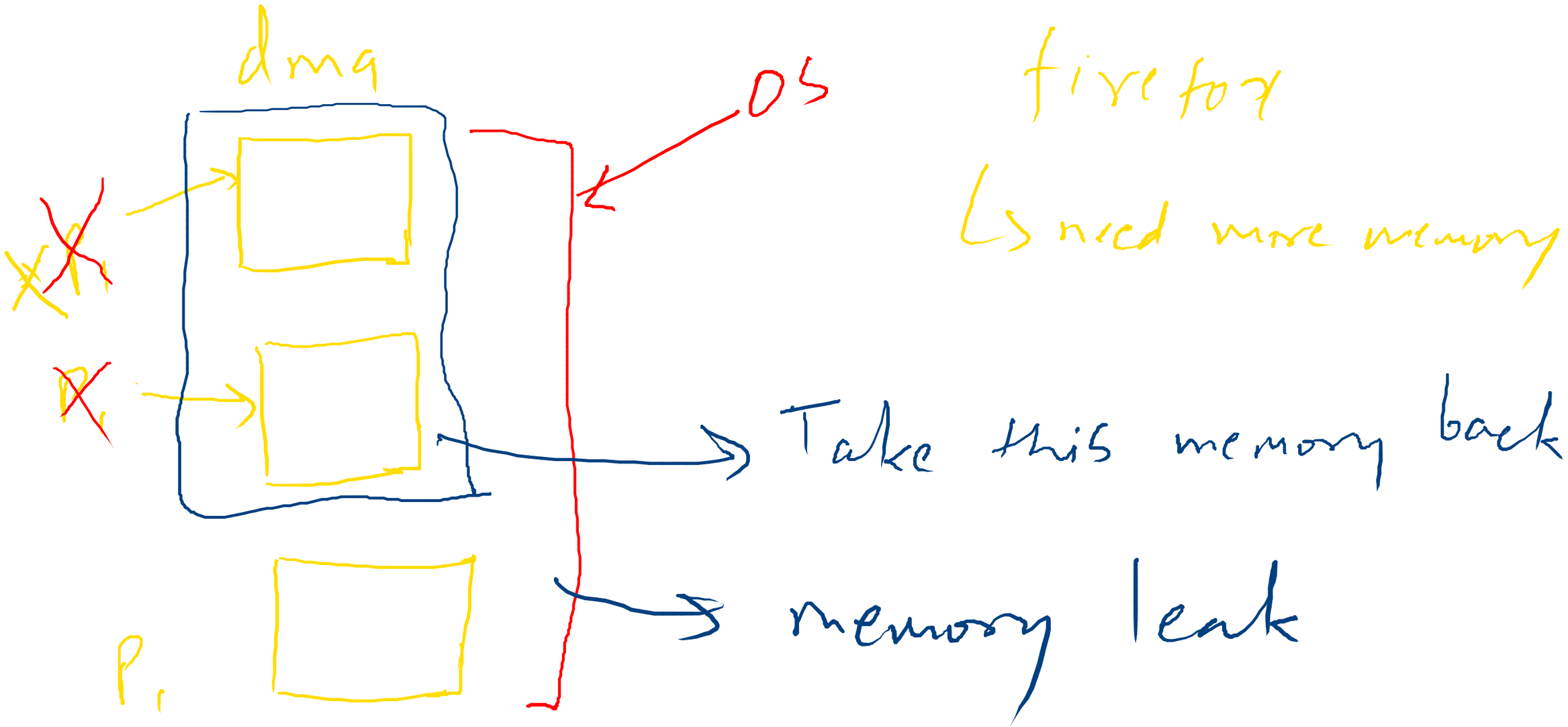
need more memory

1000!

3000 digits

factorial

10000! < 40000 digits



firefox

↳ need more memory