```c
struct element {
    int key;
    int value;
    struct element *next;
};

struct element *head;
```

```c
struct element *pop(void) {
    again:
        struct element *e = head;
        if (cmpxchg(&head, e, e->next) != e)
            goto again;
        return e;
}
```

```c
void push(struct element *e) {
    again:
        e->next = head;
        if (cmpxchg(&head, e->next, e) != e->next)
            goto again;
}
```