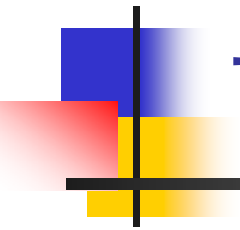

词法分析---DFA的最小化

编译原理

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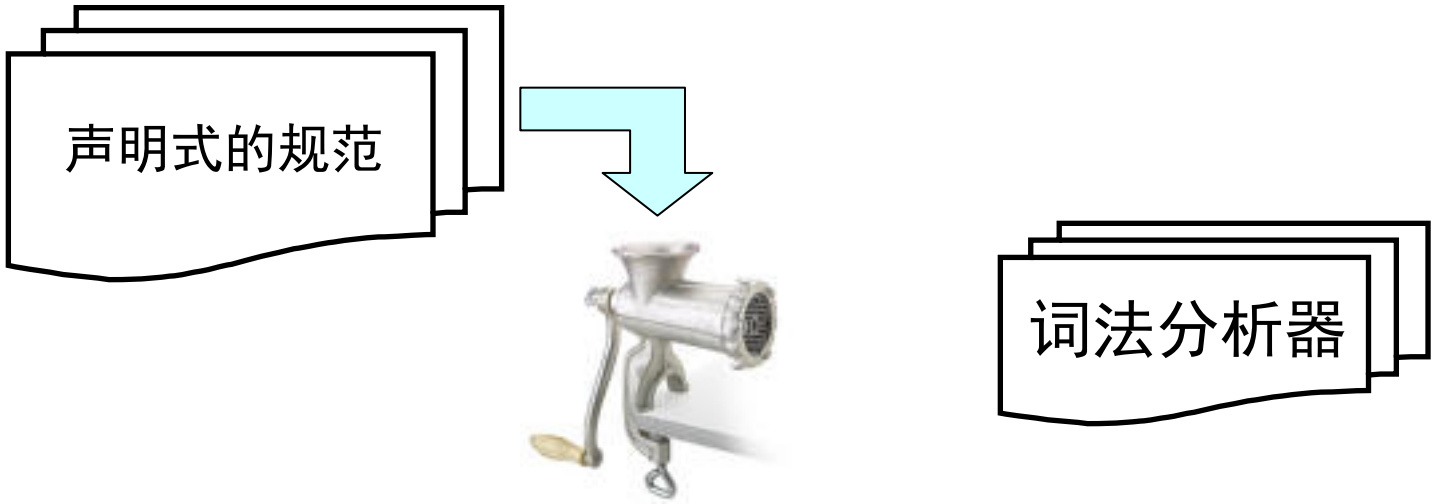
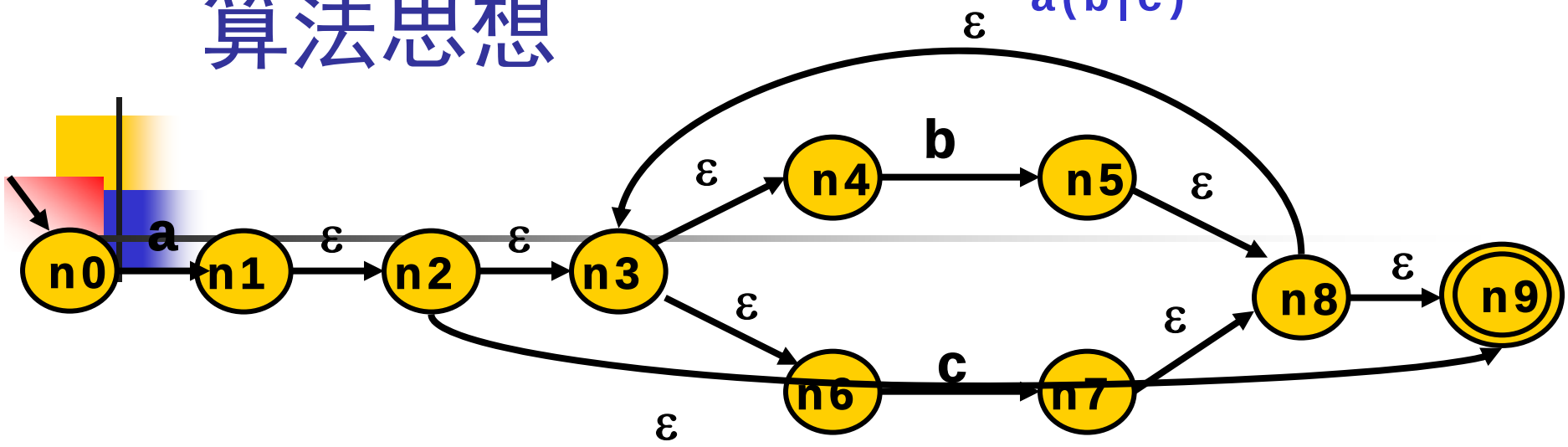
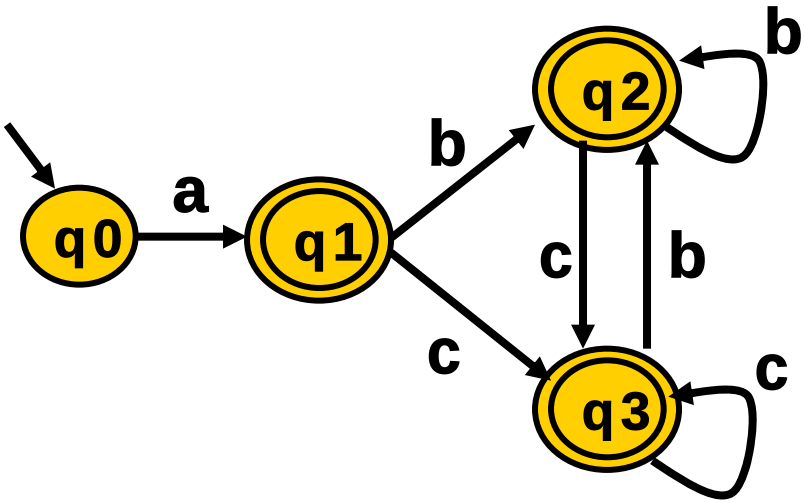
回顾：自动生成


声明式的规范
词法分析器
Thompson算法
子集构造算法
Hopcroft
最小化算法
RE
NFA
DFA
词法分析器代码

算法思想

a(b|c)*

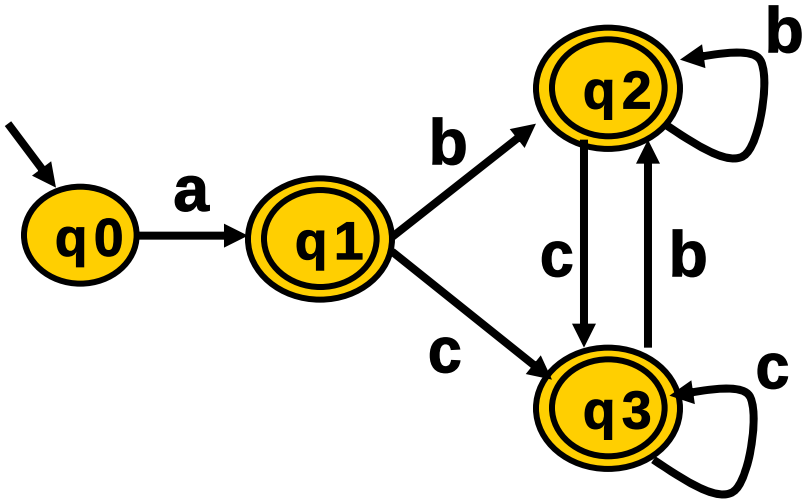




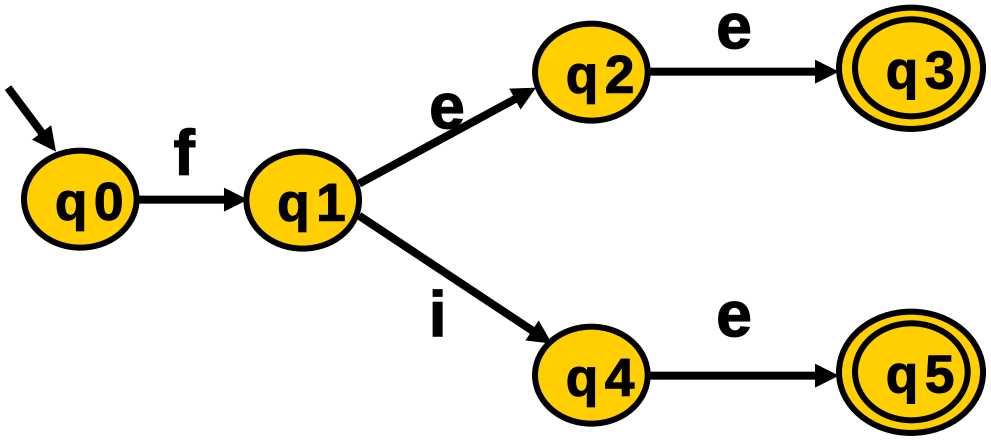
Hopcroft算法

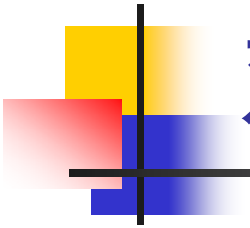
```
// 基于等价类的思想
split(S)
  foreach (character c)
    if (c can split S)
      split S into T1, …, Tk

hopcroft ()
  split all nodes into N, A
  while (set is still changes)
    split(S)
```

示例1



示例2





对算法的讨论

- 不动点算法
  - 算法为什么能够运行终止
- 时间复杂度
  - 最坏情况$O(2^N)$？
  - 实际中运行可能会更快
    - 因为并不是每个子集都会分裂