CS 160 Compilers

程序代写代做 CS编程辅导

Lecture

visiting DFA &

WeChat. cstutorcs

Assignment Project Exam Help

Email: tutorcs@163.com

QQ: 749389476

https://tutorcs.com

Yu Feng Fall 2021

程序代事性做加仑编程辅导

Today: Revisiting

A & DFA

• High-level story: RegEx -> NFA -> DFA -> Table

WeChat: cstutorcs

Assignment Project Exam Help

Email: tutorcs@163.com

QQ: 749389476

F担持代写組載的编程辅导

- Regular Expressions <
- Finite Automata ⇔ Implementa
- A finite automata formally Chatis Continues
 - An input alphabet Assignment Project Exam Help
 - A set of states S Email: tutorcs@163.com
 - A start state n QQ: 749389476
 - A set of accepting shateps: /teltores.com
 - A set of transitions state \rightarrow input state

F担持代写組載的编程铺导

- Transition $S_1 \rightarrow \alpha S$
- This means: In state S_1 and input character α , go to state S_2

WeChat: cstutorcs

- If end of input and in accepting state ⇒ accept Assignment Project Exam Help
- Otherwise ⇒ rejectmail: tutorcs@163.com

QQ: 749389476

Finite Automata as State Graphs



A state:

The start State: cstutorcs

An accepting state: Assignment Project Examine Project Examine

Email: tutorcs@163.com

A transition: 749389476

Asimpleaxample

Here is an automa



accepts the string "1":

WeChat: cstutorcs

Assignment Project Exam Help

Email: tutorcs@163.com

QQ: 749389476

Anothersimplessample

• A finite automator single 0



g any number of 1's followed by a

• Alphabet: {0,1} WeChat: cstutorcs

Assignment Project Exam Help

Email: tutores@163.com

QQ: 749389476

Epsilonstransitions

A special kind of t

Εε-transitions

• Machine can move from state A to B without reading any input

WeChat: cstutorcs

Assignment Project Exam Help

Email: tutorcs@163.com

QQ: 749389476

Deterministic and Nondeterministic

程序代格的發揮相等

- Deterministic Fini
 - At most one transition per input on any state

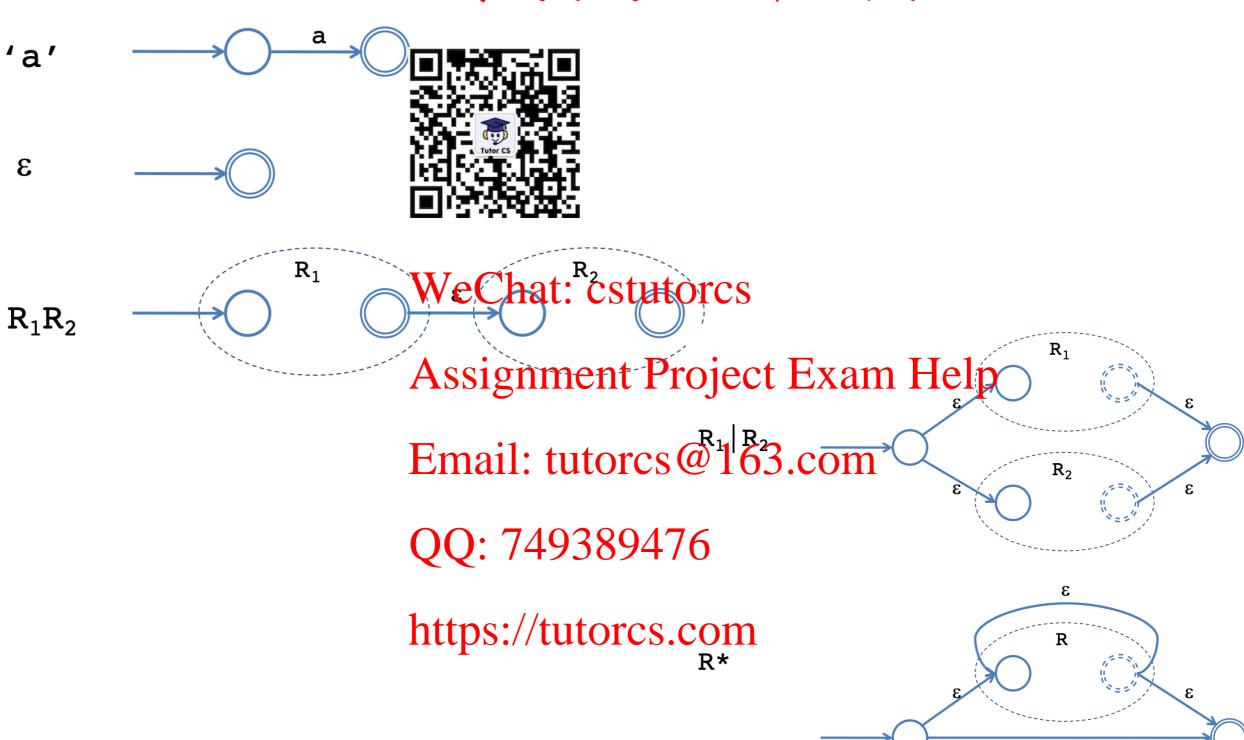
WeChat: cstutorcs

• No ε moves

Assignment Project Exam Help

- Nondeterministic Einite Automate (NEA) com
 - Can have multiple transations 150 one input in a given state
 - Can have ε-moves https://tutorcs.com

程序代写代做CS编程辅导



In程序和多数的数据编码

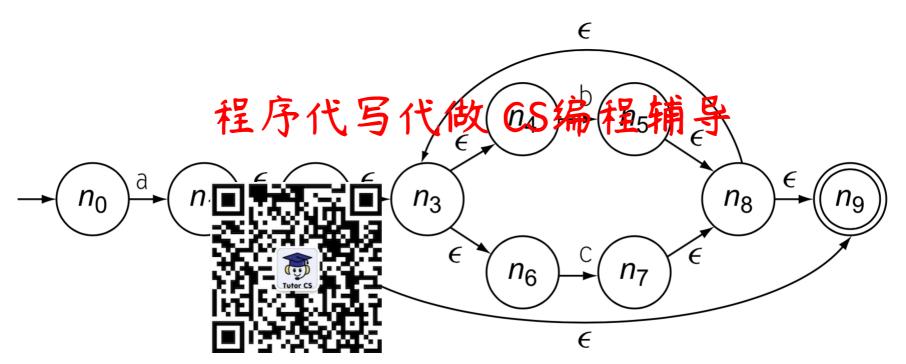
• Please draw the N $b \mid c)^*$ R_1 WeChat: cstuttores 'a' Assignment Project Exam Help 3 Email: tutorcs@163.com R_1R_2 QQ: 749389476 3 https://tutorcs.com

NFA to 是压力,The Algorithm

```
q_0 \leftarrow \epsilon - \mathbf{Q}
0 \leftarrow q_0;
                    lacksquare \{n_0\} );
WorkList
while (WorkList≠Ø) do WeChat: cstutorcs
    remove q from WorkList;
    transition function to
         t Email Ctutous (a); each element of q
         T[q,c] \leftarrow t;

QQ: 749389476

if t \notin Q then
           https://tutorcs.com to WorkList;
    end;
end;
```



(a) NFA for " $a(b \mid c)$ " (With States Renumbered) WeChat: cstutorcs

Set Name	DFA States	NFA States	*Assignment Project Exam Help b (d2) b
q_0	d_0	n_0	${n_1, n_2, n_3}$ maile tutores @ 163 com a
91	<i>d</i> ₁	$ \begin{cases} n_1, n_2, n_3, \\ n_4, n_6, n_9 \end{cases} $	- none - $00^{n_5, n_8, n_9, 1}$ $00^{n_7, n_8, n_9, 1}$ $00^{n_7, n_8, n_9, 1}$ $00^{n_7, n_8, n_9, 1}$ $00^{n_7, n_8, n_9, 1}$
q_2	d ₂	$ \left\{ n_5, n_8, n_9, \\ n_3, n_4, n_6 \right\} $	- none - q_2 q_3
q_3	d ₃	$ \left\{ n_7, n_8, n_9, \\ n_3, n_4, n_6 \right\} $	https://tutorçs.com (a) Resulting DFA

(b) Iterations of the Subset Construction

Engineering a compiler, C2.4

TOD @ shymex & leasure

• Hw2 will be out. (

ar with the Patina language

Come to the discussion session if you have questions

WeChat: cstutorcs

Assignment Project Exam Help

Email: tutorcs@163.com

QQ: 749389476