

$$1. \left((0[1-9]) \mid ([12][0-9]) \mid (1[01]) \right)$$

$$(\backslash \cdot \mid - \mid \mid)$$

$$((0[1-9]) \mid (1[0-2]))$$

$$(\backslash S)$$

$$(\backslash d \backslash d \backslash d \backslash d \backslash d)$$

$$((000[1-9]) \mid 00[1-9] \backslash d \mid 0[1-9] \backslash d \backslash d \mid (1 \backslash d \backslash d \backslash d))$$

$$(20([01] \backslash d \mid 2[0-2]))$$

2. Opisati mail adresu.

tekst 123 @ vesta. com
rs

\b [\w.-]+ @ [\w.-]+ (\. [\w.-]+) * \. \b

[A-Za-z]{2,4}

3. Описать HTML etrate.

$\langle a \text{ href} = " \dots " \rangle \dots \langle /a \rangle \langle a \text{ href} = " \dots " \rangle \dots \langle /a \rangle$

1^o $\langle \backslash s^* ([a-zA-Z])^+ \rangle \cdot \langle \backslash / \rangle$
(не val, A - placeholder *)

2^o $\langle \backslash s^* ([a-zA-Z])^+ \rangle \cdot *? \langle \backslash / \rangle$

4. Opisanje pripreme skice direktive

#define MAX (256)

#include <_.h>

1 \s* (# . *) \$

int x; // ...

#

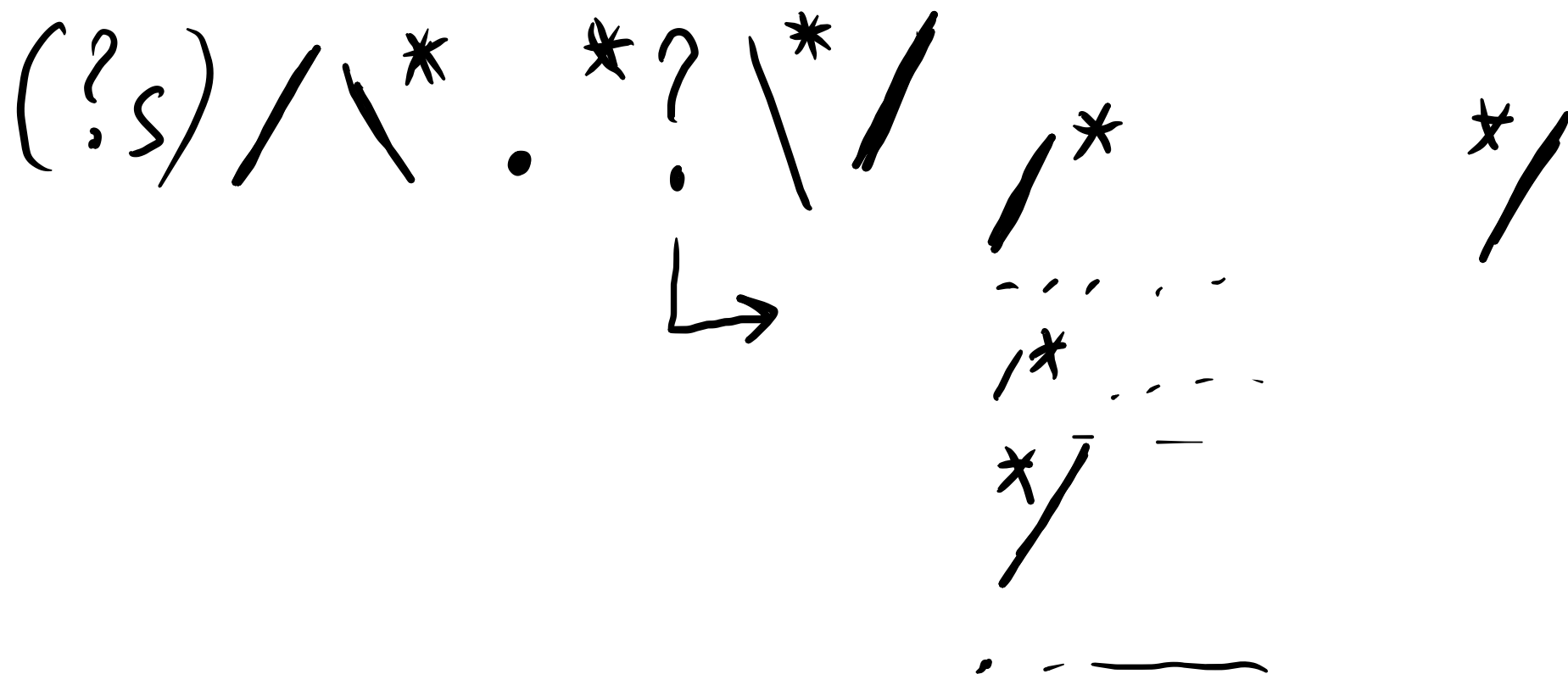
5. Opisati C++ komentare
// neki komentar

// * \$

int x; // neki tekst

→ (?s)
↓
singleLine
reži
(. \n)
→ (?i)
ignore case

6. Opisuh vizuelnijske komentare.



grep/sed

grep - meškanja sadržaja

sed - supstitucija sadržaja

egrep - extended grep

egrep - opcija regex fail

-i ignore case

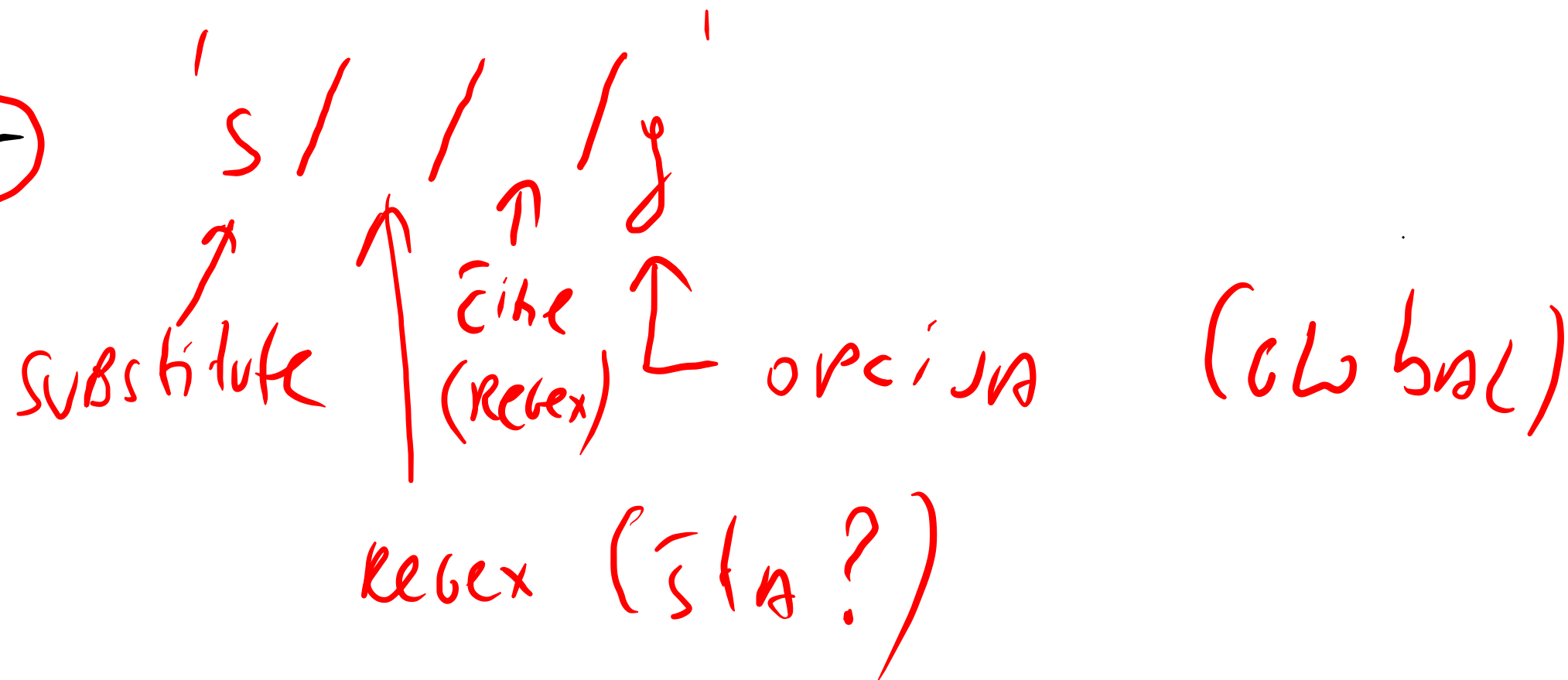
-v invert match

-c count

-n numerate

sed

(-r)



Konačni automat

uređena petica $(Q, \Sigma, q, F, \delta)$

Q - konačan skup stanja

Σ - alfabet (abeka, znakovi)

q - skup početnih stanja ($q \in Q$)

F - skup završnih stanja ($F \subseteq Q$)

δ - funkcija prelaza (tablica)

$$\delta : (Q \times \Sigma) \rightarrow Q$$

1° Najini primer:

Definisati automati koji predstavljaju samo one binarne keci sa parnim brojem nula.

$$\Sigma = \{0, 1\}$$

P - paran broj nula

N - neparan broj nula

}

$$Q = \{N, P\}$$

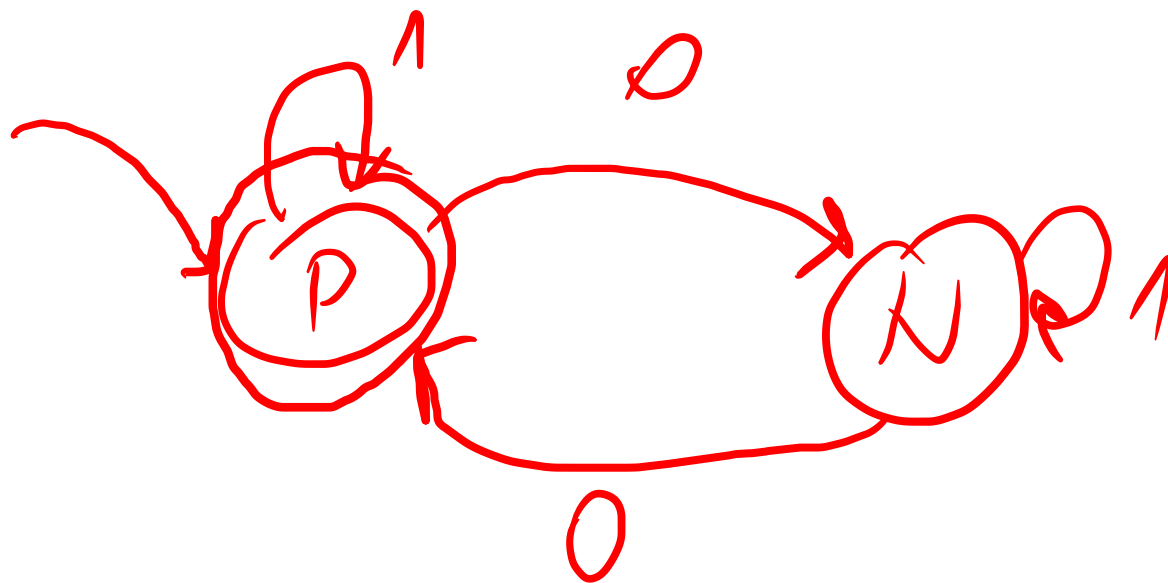
$$q = \{P\}$$

$$F = \{P\}$$

$$\delta \begin{cases} (P, 0) \rightarrow N \\ (P, 1) \rightarrow P \\ (N, 0) \rightarrow P \\ (N, 1) \rightarrow N \end{cases}$$

$\backslash \epsilon$	0	1
P	N	P
N	P	N

Tablica
Preloza



Geostien
KLP
Aukmasfa

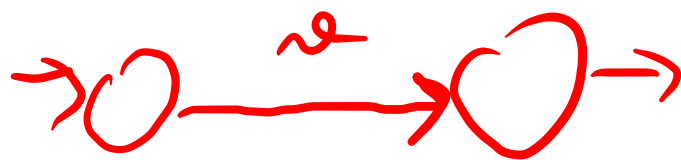
Realnost:

- 1° Definišite Regex
- 2° Konstrukcija automata (Thompson, Gluskovljevi)
- 3° Dekompilacija
- 4° Minimizacija
- 5° Implementacija.

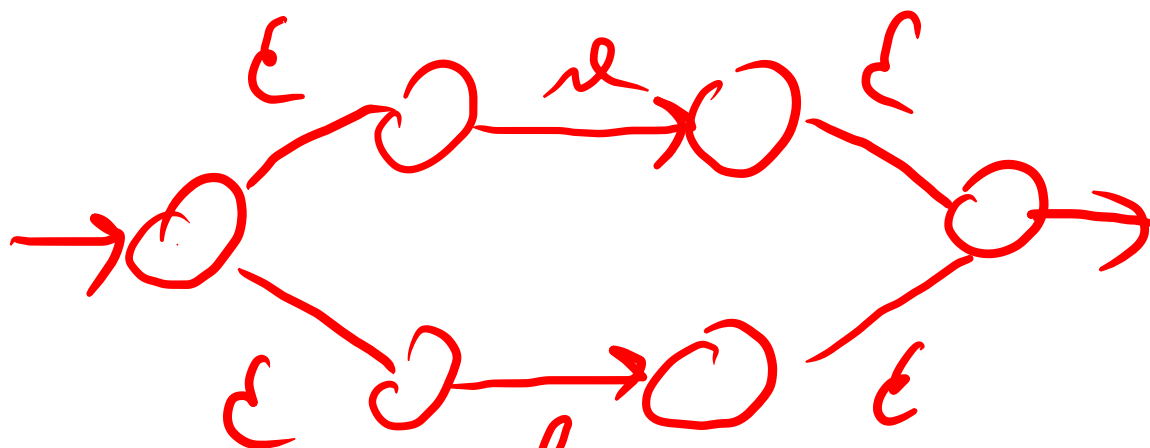
$(a|b)^* a|b|b$

Топология конструкции

1° Ликвиди a



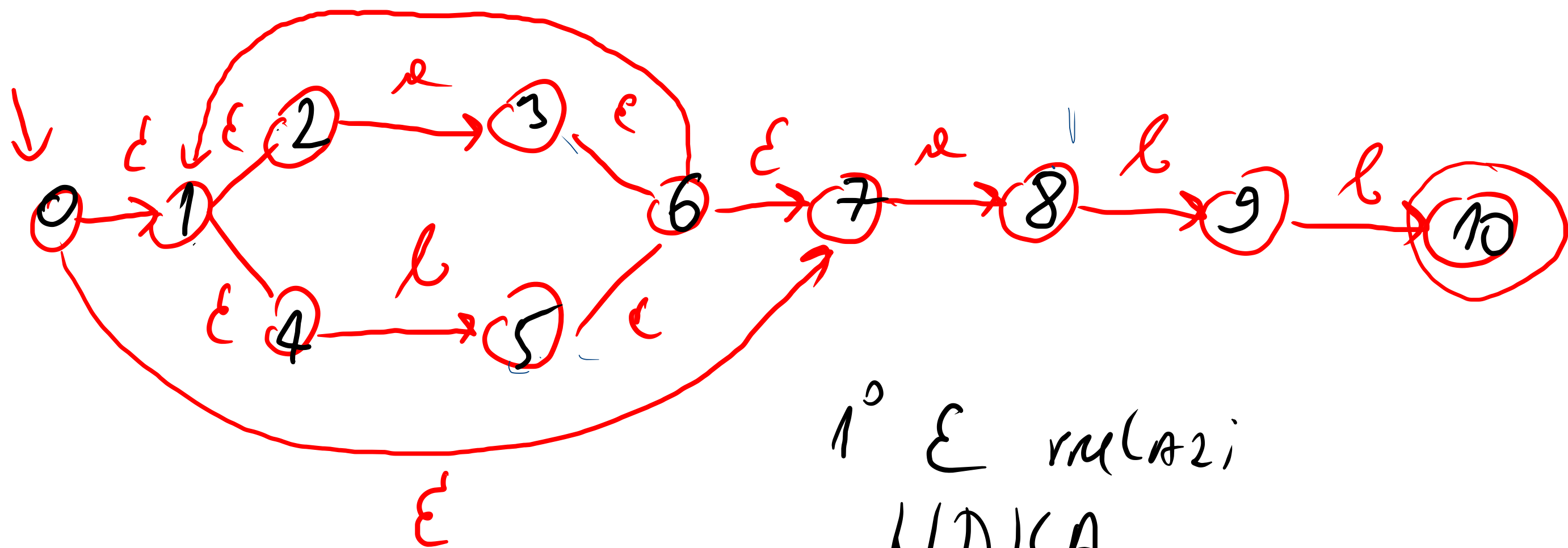
2° Алтернатива $a|b$



3° Повторение a^*



$(a/b)^*$ a b b ϵ



1° ϵ mlazi

NDKA

~~neke~~ kuminskički konačni
(ϵ) automati

Deterministic Action

$$\Sigma = \{a, b\}$$

$$\textcircled{A} = \varepsilon(0, \varepsilon) = \{0, 1, 2, 4, 7\}$$

← now Bietw stange

$$\varepsilon(A, a) = \{3, 6, 7, 1, 2, 4, \underline{8}\} = B$$

$$\varepsilon(C, b) = \{5, 6, 7, 1, 2, 9\} =$$

$$\varepsilon(A, b) = \{5, 6, 7, 1, 2, 4\} = C$$

$$\varepsilon(1, a) = \{3, 6, 7, 1, 2, 9, 8\} = B$$

$$\varepsilon(B, a) = \{3, 6, 7, 1, 2, 4, 8\} = B$$

$$\varepsilon(1, b) = \{5, 6, 7, 1, 2, 9, \underline{10}\} = \textcircled{E}$$

$$\varepsilon(B, b) = \{5, 6, 7, 1, 2, 4, 9\} = D$$

$$\varepsilon(E, a) = \{3, 6, 7, 1, 2, 9, 8\} = B$$

$$\varepsilon(C, a) = \{\underline{8}, 3, 6, 7, 1, 2, 9\} = B$$

$$\varepsilon(E, b) = \{5, 6, 7, 1, 2, 9\} = C$$

Σ S	a	b
$\rightarrow A$	B	C*
B	B	D
C	B	C*
D	B	E
$\odot E$	B	C*

DKA (neon E) \Rightarrow MODKA
 \downarrow
 minimalni

\rightarrow Konstrukcija podskupova
 $N = \{A, B, C, D\}$ $F = \{E\}$
 \downarrow \downarrow
 nezavisna stanja \downarrow 2Avezna stanja
 stanja

$$N = \{A, B, C, D\}$$

$$F = \{E\}$$

$$A, \underline{a} \rightarrow B \in \underline{N}$$

$$A, \underline{b} \rightarrow C \in \underline{N}$$

$$B, \underline{a} \rightarrow B \in \underline{N}$$

$$B, \underline{b} \rightarrow D \in \underline{N}$$

$$C, \underline{a} \rightarrow B \in \underline{N}$$

$$C, \underline{b} \rightarrow C \in \underline{N}$$

$$D, \underline{a} \rightarrow B \in \underline{N}$$

$$D, \underline{b} \rightarrow E \notin \underline{N}$$

$$N_1 = \{A, B, C\} \quad N_2 = \{D\} \quad F = \{E\}$$

$$A, \underline{a} \rightarrow B \in N_1$$

$$A, \underline{b} \rightarrow C \in N_1$$

$$B, \underline{a} \rightarrow B \in N_1$$

$$B, \underline{b} \rightarrow D \in N_2$$

$$C, \underline{a} \rightarrow B \in N_1$$

$$C, \underline{b} \rightarrow C \in N_1$$

$$N_{11} = \{A, C\} \quad N_{12} = \{B\} \quad N_2 = \{D\} \quad F = \{E\}$$

$$A, a \rightarrow B \in N_{12}$$

$$A, b \rightarrow C \in N_{11}$$

$$C, a \rightarrow B \in N_{12}$$

$$C, b \rightarrow C \in N_{11}$$

$\begin{array}{c} \searrow \\ \epsilon \end{array}$	a	b
$\rightarrow AC$	B	AC
B	B	
D	B	E
\textcircled{E}	B	AC