

Exp10 : εNFA TO NFA CONVERSION

1. Start
2. Read no of transitions of e-NFA in n
3. Enter the transitions in a[10][10]
4. for i=0 to n do
 1. if (a[i][1] != e) then
 1. print a[i]
 2. else
 1. toNFA(a[i][0], a[i][2])
5. toNFA(c , d)
 1. for i=0 to n do
 1. if (a[i][0] = d & a[i][1] != e) then
 1. f[0] = c
 2. f[1] = a[i][1]
 3. f[2] = a[i][2]
 4. print f
6. Stop

εNFA to NFA (C)

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
```

```
int n, m = 0;
char a[10][10], f[5];
```

```
void toNFA(char c, char d) {
    for (int i = 0; i < n; i++) {
        if (a[i][0] == d && a[i][1] != 'e') {
            f[0] = c;
            f[1] = a[i][1];
            f[2] = a[i][2];
            printf("changed : %s\n", f);
            strcpy(f, "");
        }
    }
}
```

```
int main() {
    int i, z;
    char c, ch;
    printf("Enter the no of transitions = ");
    scanf("%d", &n);

    printf("Enter the e-NFA transitions\n");
    for (i = 0; i < n; i++) {
        scanf("%s%c", a[i], &ch);
    }

    printf("NFA without e-transitions\n");
```

```

for (i = 0; i < n; i++) {
    if (a[i][1] != 'e') {
        printf("original : %s\n", a[i]);
    } else {
        toNFA(a[i][0], a[i][2]);
    }
}
return 0;
}

```

output

```

Enter the no of transitions = 7
Enter the e-NFA transitions
010
110
0e2
203
302
214
402
NFA without e-transitions
original : 010
original : 110
changed : 003
changed : 014
original : 203
original : 302
original : 214
original : 402
● deadpool@daredevil:~/Desktop/s7-CD/5 εNFA to NFA$ gcc eNFA_NFA.c
● deadpool@daredevil:~/Desktop/s7-CD/5 εNFA to NFA$ ./a.out
Enter the no of transitions = 7
Enter the e-NFA transitions
1a2
1e3
2a1
3b4
4b3
3a5
5b3
NFA without e-transitions
original : 1a2
changed : 1b4
changed : 1a5
original : 2a1
original : 3b4
original : 4b3
original : 3a5
original : 5b3

```