```
#include<stdio.h>
#include<string.h> int
trans_table[10][5][3];
char symbol[5],a; int
e_closure[10][10],ptr,sta
te; void
find_e_closure(int x); int
main()
{
	int i,j,k,n,num_states,num_symbols;
	for(i=0;i<10;i++)
	{
		for(j=0;j<5;j++)
		{
			for(k=0;k<3;k++)
			{
				trans_table[i][j][k]=-1;
			}
		}
	}
	printf("How may states in the NFA with e-moves:");
	scanf("%d",&num_states);
	printf("How many symbols in the input alphabet including e :");
	scanf("%d",&num_symbols);
	printf("Enter the symbols without space. Give 'e'
first:");	scanf("%s",symbol);
for(i=0;i<num_states;i++)
	{
		for(j=0;j<num_symbols;j++)
		{
			printf("How many transitions from state %d for the input
%c:",i,symbol[j]);
			scanf("%d",&n);
			for(k=0;k<n;k++)
			{
				printf("Enter the transitions %d from state %d for the input
%c :", k+1,i,symbol[j]);
				scanf("%d",&trans_table[i][j][k]);
			}
		}
	}
	for(i=0;i<10;i++)
	{
		for(j=0;j<10;j++)
		{
			e_closure[i][j]=-1;
		}
```

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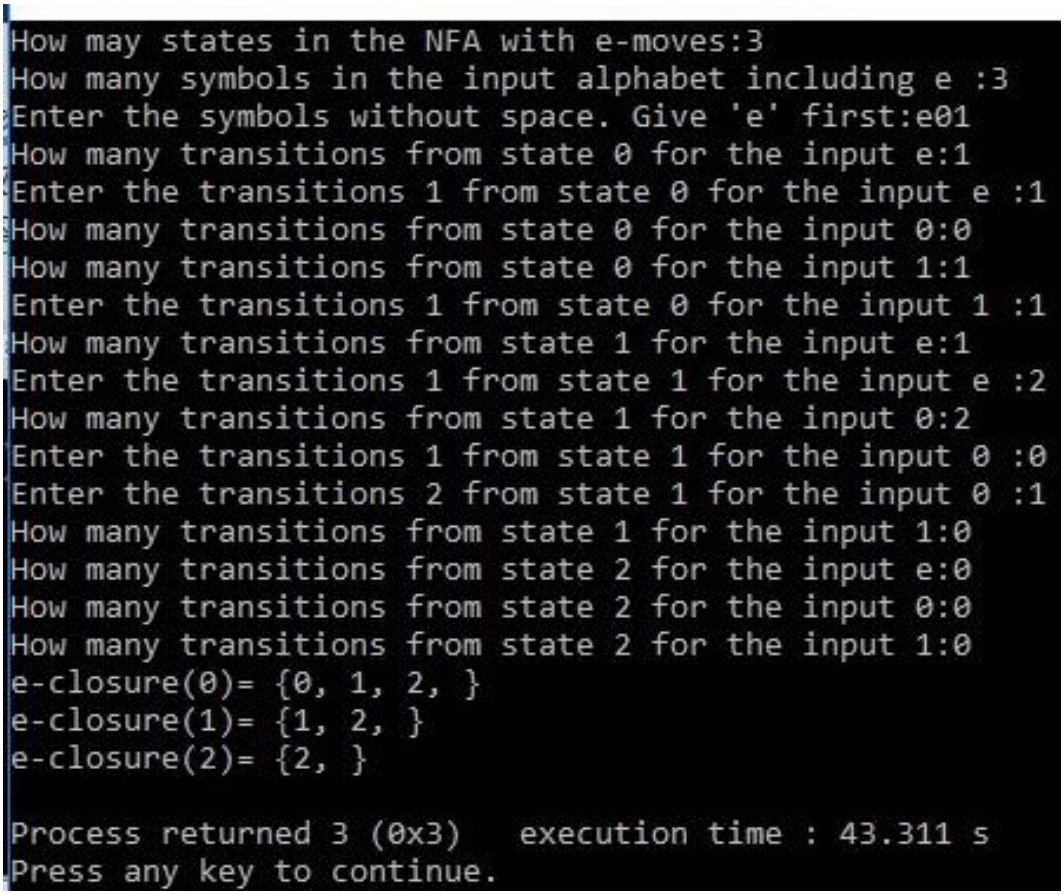
        }
        for(i=0;i<num_states;i++)
e_closure[i][0]=i;
        for(i=0;i<num_states;i++)
        {


                if(trans_table[i][0][0]==-1)

continue;
else
                {
                        state=i;
                 ptr=1;
                        find_e_closure(i);
                }
        }
        for(i=0;i<num_states;i++)
        {
                printf("e-closure(%d)= {",i);
                for(j=0;j<num_states;j++)
                {
                        if(e_closure[i][j]!=-1)
                        {
                                printf("%d, ",e_closure[i][j]);
                        }
                }
                printf("}\n");
        }
}
void find_e_closure(int x)
{
        int i,j,y[10],num_trans;
        i=0;
        while(trans_table[x][0][i]!=-1)
        {
                y[i]=trans_table[x][0][i];
                i=i+1;
        }
        num_trans=i;
        for(j=0;j<num_trans;j++)
        {
                e_closure[state][ptr]=y[j];
                ptr++;
                find_e_closure(y[j]);
       } }
```


How may states in the NFA with e-moves:3
How many symbols in the input alphabet including e :3
Enter the symbols without space. Give 'e' first:e01
How many transitions from state 0 for the input e:1
Enter the transitions 1 from state 0 for the input e :1
How many transitions from state 0 for the input 0:0
How many transitions from state 0 for the input 1:1
Enter the transitions 1 from state 0 for the input 1 :1
How many transitions from state 1 for the input e:1
Enter the transitions 1 from state 1 for the input e :2
How many transitions from state 1 for the input 0:2
Enter the transitions 1 from state 1 for the input 0 :0
Enter the transitions 2 from state 1 for the input 0 :1
How many transitions from state 1 for the input 1:0
How many transitions from state 2 for the input e:0
How many transitions from state 2 for the input 0:0
How many transitions from state 2 for the input 1:0
e-closure(0)= {0, 1, 2, }
e-closure(1)= {1, 2, }
e-closure(2)= {2, }
Process returned 3 (0x3) execution time : 43.311 s
Press any key to continue.