#include<string.h>

#include<stdio.h>

void main(){

/\*OPERATOR PRECEDENCE PARSER\*/

char stack[20],ip[20],opt[10][10][1],ter[10];

int i,j,k,n,top=0,col,row;

for(i=0;i<10;i++)

{

stack[i]=NULL;

ip[i]=NULL;

for(j=0;j<10;j++)

{

opt[i][j][1]=NULL;

}

}

printf("Enter the no.of terminals :\n");

scanf("%d",&n);

printf("\nEnter the terminals :\n");

scanf("%s",&ter);

printf("\nEnter the table values :\n");

for(i=0;i<n;i++)

{

for(j=0;j<n;j++)

{

printf("Enter the value for %c %c:",ter[i],ter[j]);

scanf("%s",opt[i][j]);

}

}

printf("\n\*\*\*\* OPERATOR PRECEDENCE TABLE \*\*\*\*\n");

for(i=0;i<n;i++)

{

printf("\t%c",ter[i]);

}

printf("\n");

for(i=0;i<n;i++){printf("\n%c",ter[i]);

for(j=0;j<n;j++){printf("\t%c",opt[i][j][0]);}}

stack[top]='$';

printf("\nEnter the input string:");

scanf("%s",ip);

i=0;

printf("\nSTACK\t\t\tINPUT STRING\t\t\tACTION\n");

printf("\n%s\t\t\t%s\t\t\t",stack,ip);

while(i<=strlen(ip))

{

for(k=0;k<n;k++)

{

if(stack[top]==ter[k])

col=k;

if(ip[i]==ter[k])

row=k;

}

if((stack[top]=='$')&&(ip[i]=='$')){

printf("String is accepted\n");

break;}

else if((opt[col][row][0]=='<') ||(opt[col][row][0]=='='))

{ stack[++top]=opt[col][row][0];

stack[++top]=ip[i];

printf("Shift %c",ip[i]);

i++;

}

else{

if(opt[col][row][0]=='>')

{

while(stack[top]!='<'){--top;}

top=top-1;

printf("Reduce");

}

else

{

printf("\nString is not accepted");

break;

}

}

printf("\n");

for(k=0;k<=top;k++)

{

printf("%c",stack[k]);

}

printf("\t\t\t");

for(k=i;k<strlen(ip);k++){

printf("%c",ip[k]);

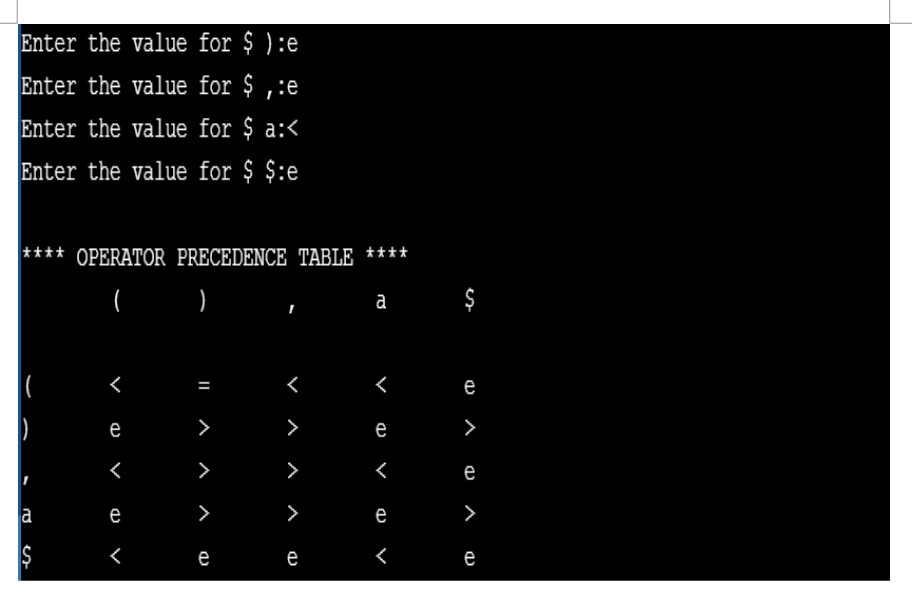
}

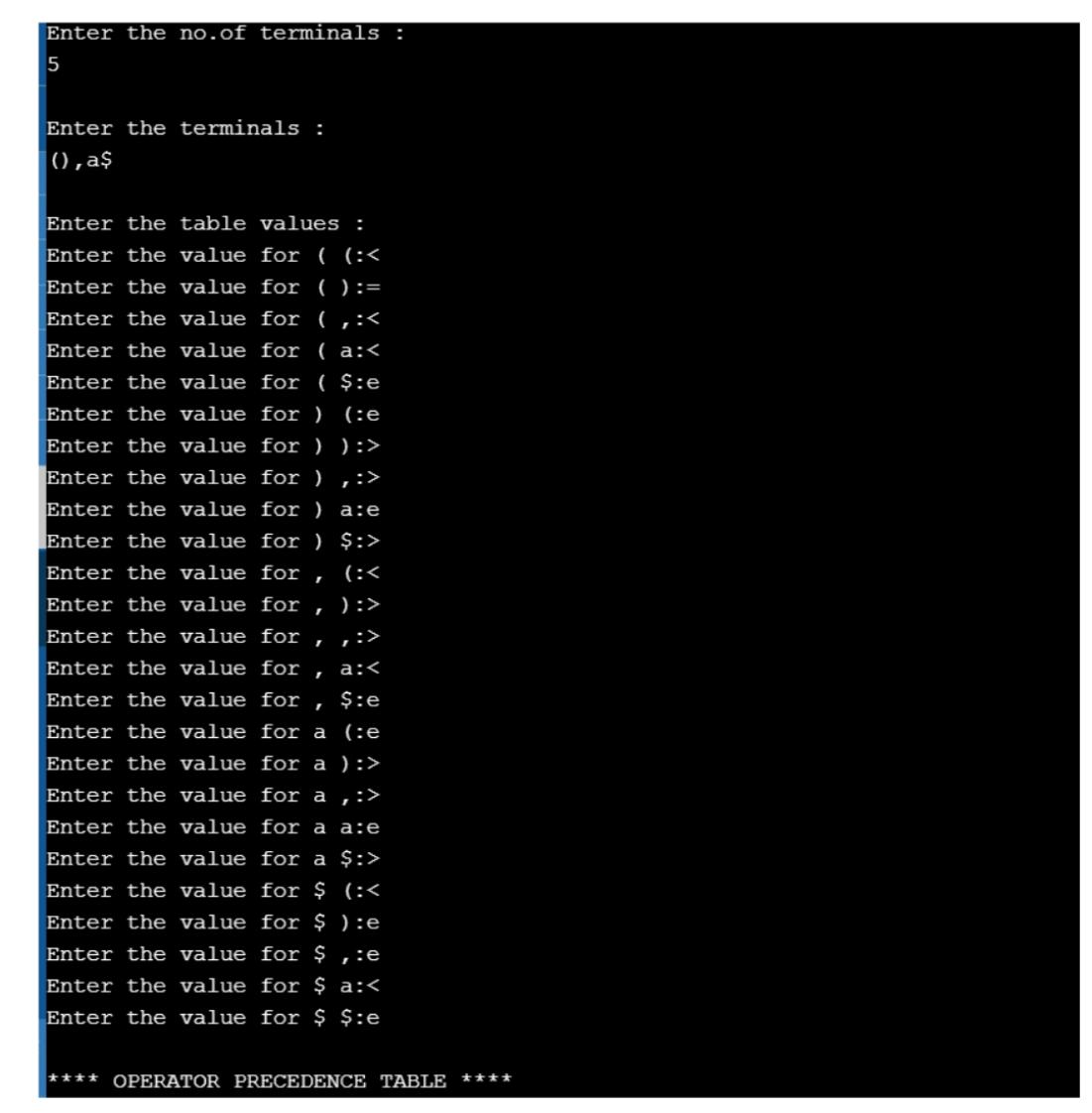
printf("\t\t\t");

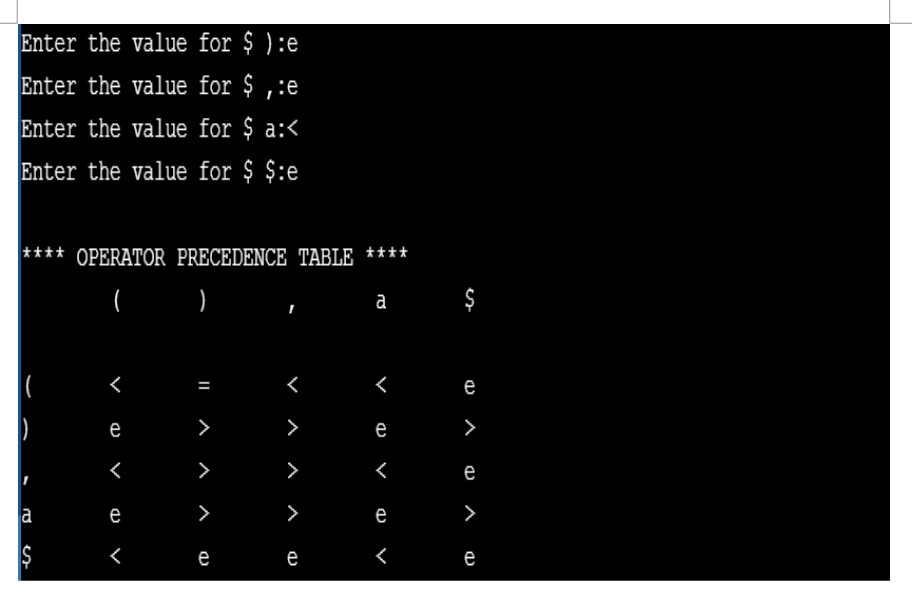
}

}

***OUTPUT***

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