#include<stdio.h>

#define maxtop 10

void push(int \*stk,int element,int \*top,int MAXTOP);

unsigned char isfull(int top,int MAXTOP);

int pop(int \*stk,int \*top);

unsigned char isempty(int top);

void printstk(int \*stk,int \*top);

int main(){

int stack[maxtop];

int top = -1;

int element;

push(stack,'N',&top,maxtop);printstk(stack,&top);

push(stack,'K',&top,maxtop);printstk(stack,&top);

push(stack,'U',&top,maxtop);printstk(stack,&top);

push(stack,'S',&top,maxtop);printstk(stack,&top);

push(stack,'T',&top,maxtop);printstk(stack,&top);

printf("\n");

for(int i=0;i<5;i++){

element = pop(stack,&top);printstk(stack,&top);

printf("\'%c\'popped!\n",element);

top--;

}

}

void push(int \*stk,int element,int \*top,int MAXTOP){

if(!isfull(\*top,MAXTOP)){

\*top = \*top + 1;

stk[\*top] = element;

}

else

printf("overflow\n");

}

int pop(int \*stk,int \*top){

int element;

if(!isempty(\*top))

element = stk[\*top--];

else

printf("underflow\n");

}

unsigned char isfull(int top,int MAXTOP){

if(top >= MAXTOP-1)

return 1;

else

return 0;

}

unsigned char isempty(int top){

if(top >= -1)

return 0;

else

return 1;

}

void printstk(int \*stk,int \*top){

int i;

printf("%c\n",stk[\*top]);

}

